

Draft Clean Air Strategy

Strategic Environmental Assessment Environmental Report August 2026

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

1. Executive Summary	4
2. Draft CAS Programme Purpose and Objectives	8
3. Legislation and the draft Clean Air Strategy	18
4. Legislative Context of SEA Process	20
5. SEA Screening Process	22
6. SEA framework	33
7. Key stages of the SEA process	34
8. Baseline information and environmental issues	37
8.1 Current State of the Environment in Northern Ireland	39
8.2 Key Statistics	40
8.3 Environmental Characteristics	41
8.4 Baseline Theme 1- Biodiversity, Flora and Fauna	42
8.4.1 Biodiversity, Flora and Fauna baseline summary	43
8.4.2 Key habitats and species	45
8.4.3 Biodiversity, Flora and Fauna future baseline summary	46
8.5 Baseline Theme 2 – Water, Marine & Coastal and Soil & Mineral Resources	48
8.5.1 Water, Marine & Coastal baseline summary	48
8.5.2 Water, Marine & Coastal future baseline summary	53
8.5.3 Soil and Land baseline summary	54
8.5.4 Soil and Land future baseline summary	57
8.5.5 Mineral Resources baseline summary	58
8.5.6 Mineral Resources future baseline summary	60
8.6 Baseline SEA Theme 3 Historic and Cultural Environment	61
8.6.1 Historic and Cultural Environment baseline summary	62
8.6.2 Historic and Cultural Environment future baseline summary	64
8.7 Baseline SEA Theme 4 – Landscape & Seascape	65
8.7.1 Landscape & Seascape baseline Summary	66
8.7.2 Landscape & Seascape future baseline summary	69
8.8 Baseline SEA Theme 5 - Air Quality and Noise	70

Clean Air Strategy for Northern Ireland

SEA Environmental Report

August 2026

8.8.1 Air Quality and Noise baseline summary	70
8.8.2 Northern Ireland's main air pollutants and their sources	71
8.8.3 Current status of air quality in Northern Ireland	71
8.8.4 Northern Ireland source emissions: National Atmospheric Emissions Inventory	72
8.8.5 Air quality data and information	73
8.8.6 Noise pollution baseline summary	77
8.8.7 Air Quality and Noise future baseline summary	79
8.9 Baseline Theme 6 - Population and Human Health	79
8.9.1 Population and Human Health baseline summary	80
8.9.2 Population and Human Health future baseline summary	81
9. SEA Findings by Themes	81
9.1 SEA Theme 1- Biodiversity, Flora and Fauna	82
9.2 SEA Theme 2 – Water, Marine & Coastal and Soil & Mineral Resources	85
9.3 SEA Theme 3 – Historic Environment and Material Assets	87
9.4 SEA Theme 4 – Landscape and Seascapes	89
9.5 SEA Theme 5 – Air quality, climatic factors and noise	90
9.6 SEA Theme 6 – Healthy and safe communities	98
9.7 Interrelationships between SEA Themes & Topics	99
10. SEA Transboundary Consultation with EU Member States	100
11. Links with other plans, programmes and strategies	103
11.1 International	104
11.2 National	105
12. Indicators	108
13. Enforcement	110
14. Consideration of alternatives and mitigation	110
15. Conclusions	113
Annex A Draft CAS Actions and Strategic Environmental Impacts	115

1. Executive Summary

This Environmental Report considers the Strategic Environmental Assessment (SEA) for policies and proposals regarding the draft Clean Air Strategy (herein referred to as the draft CAS) for Northern Ireland.

The draft CAS sets out the Department of Agriculture, Environment and Rural Affairs (DAERA) commitment and long-term ambition to improve air quality, alongside the steps we will take to deliver this. The draft CAS 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.

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:

1. To improve air quality to support better human health, 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.

Strategic objectives:

The draft CAS has five objectives which are:

- **Develop our evidence base** by building on our existing high quality air quality network.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

- **Improve legislation** by updating existing legislation to protect Northern Ireland's air quality and human health. New ambitious PM2.5 and PM10 limits/targets are intended to be introduced, following consultation.
- **Raise awareness and change behaviour** by providing people with easy to understand and accurate information to allow people to make better informed decisions and change behaviour.
- **Work towards zero pollution** by preventing air pollution at source.
- **Deliver change through partners** by working together to manage and improve Northern Ireland's air quality.

19 Actions are contained within the current draft of the Clean Air Strategy to achieve these Strategic Objectives and are listed in Section 2 below and also included in Annex A of the draft CAS.

A SEA is a statutory requirement under the European Directive 2001/42/EC ¹ 'on the assessment of effects of certain plans and programmes on the environment', known as the Strategic Environmental Assessment Directive. The SEA Directive was ratified in Northern Ireland through The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 legislation.

As a first stage of the SEA process, a SEA and Habitats Regulations Assessment (HRA) Screening Report was prepared for the policies and proposals associated with the draft CAS.

¹ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32001L0042>

The screening sought to determine whether a full SEA and HRA process was required for policies and proposals associated with the draft CAS. This was undertaken in accordance with Article 3(5) of the SEA Directive.

On completion of the SEA Screening Assessment, it was determined that the draft CAS **should undergo a full Strategic Environmental Assessment**.

It is the view of the Department that the Strategic Objectives and Actions contained within the draft CAS are intended to have significant and positive environmental effects.

On completion of the Appropriate Assessment Screening, under the HRA Screening process it was determined that the draft CAS **should undergo an Appropriate Assessment**.

The objective of the draft CAS is to improve Northern Ireland's environment in general through improved air quality and by extension also improve the habitats covered by the Habitats Regulations Assessment process.

The draft CAS offers a clear framework to prioritise actions that will **maximise environmental and societal benefits** and has the potential to **significantly reduce negative environmental impacts**. The potential for likely significant negative effects on European sites could not be entirely ruled out at this stage of the process however this is covered in more detail in the HRA Appropriate Assessment.

Following screening, the two key procedural requirements of the SEA Regulations are that:

1. When deciding on ‘the scope and level of detail of the information’ which must be included in the Environmental Report there is a consultation with nationally designated authorities concerned with environmental issues.
2. A report (this ‘Environmental Report’) is published for consultation alongside the draft plan for consultation that presents an assessment of the draft plan (i.e. discusses ‘likely significant effects’ that would result from plan implementation) and reasonable alternatives.

Scoping is the process of determining the range and level of detail of the environmental issues to be taken forward in the SEA. The scope of the SEA depends on what is likely to be proposed through the plan or programme, its geographical and temporal coverage, and the nature of the receiving environment. The scoping process also identifies the methods to be used, the organisations and/or individuals to be consulted during the assessment, and the timing and length of the consultation period. The assessment of the need for a SEA for the draft CAS has been carried out with reference to relevant legislation and regulations, including using “A Practical Guide to the Strategic Environmental Assessment Directive”.²

The Scoping Report set out the scope of the SEA and was submitted to statutory and transboundary consultees in May 2026, to provide a framework for the information to be presented in the Environmental Report.

2

<https://assets.publishing.service.gov.uk/media/5a78ec0740f0b62b22cbddd2/practical-guidesea.pdf>

Policies and proposals for the draft CAS are intended to directly impact air and environmental quality and are intended to have significant, positive environmental effects. This Environmental Report identifies the extent of these positive effects and also identifies any potential risks and environmental disbenefits.

2. Draft CAS Programme Purpose and Objectives

A draft CAS has been finalised in readiness for a public consultation. This is a new strategy specifically for Northern Ireland. Since 2007, Northern Ireland has been included in the UK DEFRA Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 (UK AQS), and in earlier revisions dated 2003 and 2000. The 2007 UK wide strategy has recently been superseded in England but remains in place for Northern Ireland until the publication of this draft CAS. Key elements of the 2007 strategy including standards and objectives for each pollutant have been incorporated into this draft CAS to ensure there is no diminution of standards in air quality in Northern Ireland.

Aim

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

Goals

The draft Clean Air Strategy 2026-2032 goals are to:

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

The draft CAS identifies Actions for Government and through increasing awareness, it aims to encourage every person in Northern Ireland to change their daily lives to reduce air pollution. The draft CAS will contribute to the DAERA vision of “Delivering a net zero nature positive future, supporting sustainable agriculture and thriving rural communities”.

To deliver the draft CAS’s aims, the strategy consists of five Strategic Objectives, which are the overarching principles of this strategy. A number of Actions are set out under each Strategic Objective. These Actions are the delivery mechanism for the draft strategy.

Each Action has a time bound outcome (ranging from 2026 to 2032), along with a Lead Department and Potential delivery Partner(s). The actions are listed in Annex A of the Northern Ireland Clean Air Strategy document, and include DAERA, the Northern Ireland Executive, the Department for the Economy (DfE), Department for Infrastructure (DfI), Department of Health (DoH), the Northern Ireland District Councils, as well as agencies including the Northern Ireland Environment Agency (NIEA) and the Public Health Agency (PHA).

The Strategic Objectives and Associated Actions are:

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.

Actions

1.1 Undertake knowledge surveys

DAERA will carry out two knowledge surveys, one before any public awareness campaigns have taken place, 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.

A baseline survey was conducted before the consultation, and awareness campaigns were carried out. 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 Northern Ireland 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'³.

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 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 the end of 2032, DfI will have developed and added an Air Quality model application to the Department for Infrastructure's bespoke Northern Ireland 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

³ DAERA Air Pollution in Northern Ireland Reports, accessed 30/04/26, <https://www.airqualityni.co.uk/reports>

and stove smoke emission rate in smoke control areas (SCAs) following a UK wide consultation⁴.

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,

⁴ 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/>

critical level, target value and limit values. These terms come from a variety of policies and pieces of legislation including CAFÉ Directive, AQS Regs (Northern Ireland) 2010, NECD, and the UK AQS.

2.3 DAERA will work with the UK Government to analyse the consultation responses to the 2026 UK wide 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 (This is Global Action Plan)

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

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

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 with 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, Northern Ireland 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-Air⁵ 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 PeacePlus, Northern Ireland – Ireland, accessed 30/04/26, <https://peace-air.eu/>

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)⁶ and Northern Ireland Policy Guidance PGNI (09)⁷. 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

⁶ 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>

⁷ 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/>

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.

3. Legislation and the draft Clean Air Strategy

The draft Clean Air Strategy will address one of DAERA's important legal obligations. It is a legislative requirement under Part III Air Quality of the Environment (Northern Ireland) Order 2002⁸:-

Air quality strategy

10.— (1) The Department shall prepare and publish a statement (in this Part referred to as “the strategy”) containing policies with respect to the assessment or management of the quality of air.

The 2007 UK wide strategy has recently been superseded in England but remains in place for Northern Ireland until the publication of Northern Ireland's first Clean Air Strategy. Key elements of the 2007 strategy including standards and objectives for each pollutant have been incorporated into this draft strategy, to ensure there is no diminution of standards in air quality in Northern Ireland.

The draft CAS includes aspects of the 2007 UK wide air quality strategy for England, Scotland, Wales and Northern Ireland to ensure there is no reduction in environmental standards.

In addition to the public consultation on this draft CAS, DAERA will consult on secondary legislation to bring into operation the following World Health Organisation

⁸ <https://www.legislation.gov.uk/nisi/2002/3153/part/III/made>

(WHO) annual average limit values to be met by 1 January 2028 for particulate matter:

- 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 (from 40µg/m³)

Any new limits, targets and objectives will require action, particularly to reduce vehicle emissions (under DfI's remit), reduce industrial emissions (under the Northern Ireland Environment Agency's remit) and reduce the use of solid fuel for domestic heating (under DfE's remit) across Northern Ireland.

The draft CAS will apply across Northern Ireland. It is a six-year initial strategy, which will focus on areas where the population is most at risk to the negative impacts of air pollution, namely urban areas where vehicle emissions, and domestic solid fuel burning emissions occur alongside high population density.

Through the draft CAS vision, it is intended that by 2032, air quality in Northern Ireland will be improving, to enhance human health, and to reduce deaths. The public should also be aware of how they can make positive change, bring about behaviour change, by taking personal action (e.g. using active travel or cleaner domestic heating fuel sources) to improve air quality.

The draft CAS aims to improve air quality across Northern Ireland, increase public awareness of the problems and their respective solutions, and understanding of the serious public health impacts arising from poor air quality. The draft strategy focuses

on prevention, followed by mitigation or abatement of air pollution with a view to improving human health, reducing deaths and improving quality of life.

This draft strategy identifies actions for Government and through increasing awareness to bring about change. The Strategy aims to encourage every person in Northern Ireland to change their daily lives to reduce air pollution.

4. Legislative Context of SEA Process

The European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment', known as the Strategic Environmental Assessment Directive or SEA Directive, applies to certain types of plans and programmes, to ensure that environmental effects of such plans and programmes are considered during their preparation.

The SEA Directive is transposed into law in Northern Ireland through The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004. The aim of the Directive as set out in Article 1 is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment'.

A SEA is mandatory for plans/programmes which:

- are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town & country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II of [the EIA Directive 85/337/EEC](#).

OR

- have been determined to require an assessment under Article 6 or 7 of [the Habitats Directive 92/43/EEC](#).

There are a number of stages in the SEA process as set out in the legislation:

- **Screening** – determination of whether a particular plan, programme or modification is likely to have significant environmental effects. Consultation on said determination with consultation body in this case the Department of Agriculture Environment and Rural Affairs (DAERA).
- **Scoping** – determining the scope of the SEA with the relevant consultees on the level of detail of the SEA.
- **Reporting** – an assessment of the likely effects of the plan on the environment and the preparation of environmental report and publication.
- **Consultation** – Consultation with the general public and consultation body.

- **Post-consultation** - post adoption procedures. Publication of the Environmental Report taking into account feedback from consultation.
- **Monitoring** – Monitoring of the plan.

5. SEA Screening Process

Screening Checklist

The Office of the Deputy Prime Minister (ODPM) Practice Guide provides a checklist based on the SEA Regulations to help determine whether SEA is required. This guide has been used as the basis on which to assess the need for SEA as set out below.

Policies and proposals for the draft CAS are intended to directly impact air and environmental quality and are intended to have significant positive environmental effects. As such a SEA is mandatory.

The appropriate consultation body, in this case, is the Department of Agriculture Environment and Rural Affairs (DAERA).

As the policies and proposals regarding the draft CAS are subject to public consultation, scrutiny, and Ministerial and Executive Approval, it is expected that scoping and other subsequent stages of the SEA may be subject to revisions as the policy evolves.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

The flow diagram below is taken from “A Practical Guide to the Strategic Environmental Assessment Directive” and is intended as a guide to the application of the Directive to plans or programmes, or in this case, a strategy - the draft CAS.

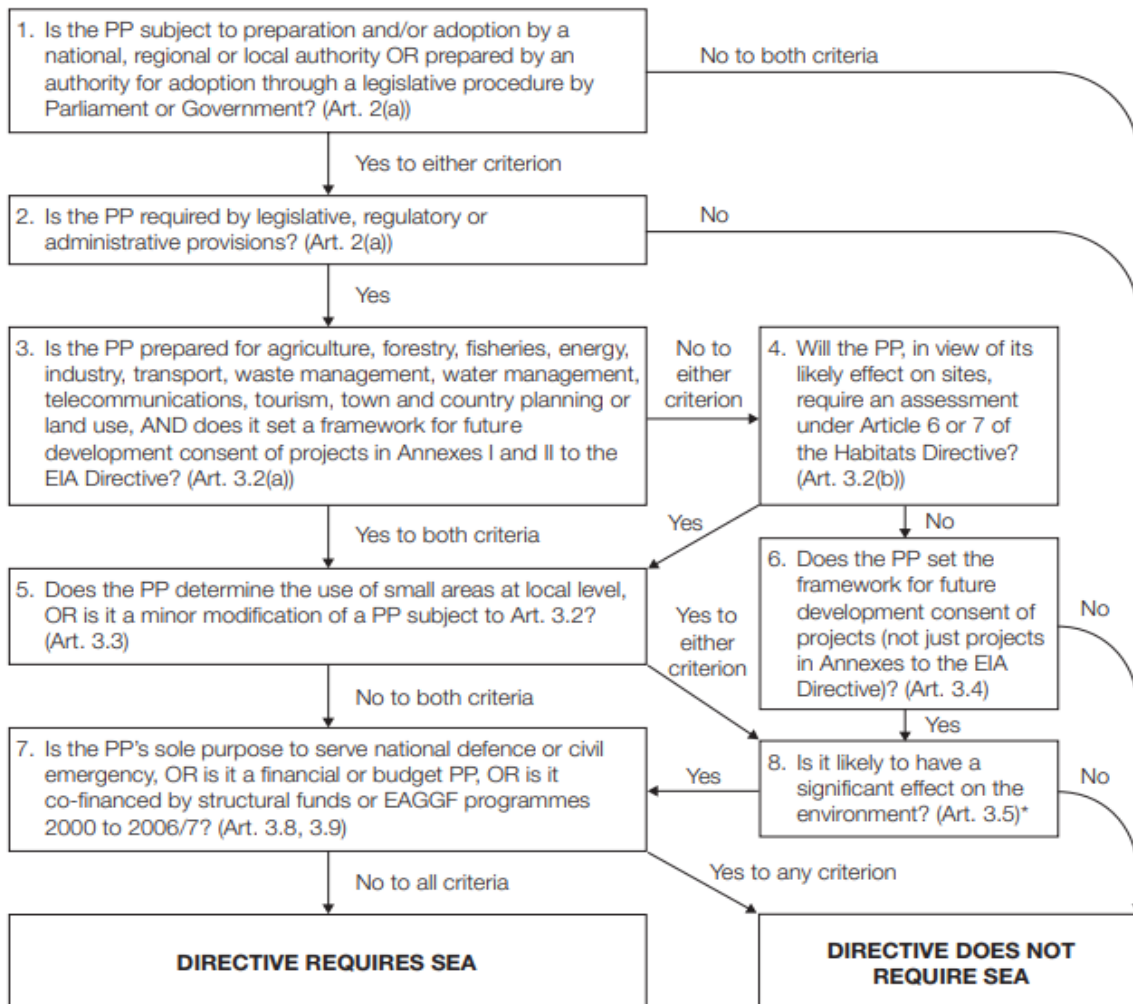
<https://www.daera-ni.gov.uk/sites/default/files/publications/doe/bm-sea-practicalguide.pdf>

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Figure 2 – Application of the SEA Directive to plans and programmes

This diagram is intended as a guide to the criteria for application of the Directive to plans and programmes (PPs). It has no legal status.



*The Directive requires Member States to determine whether plans or programmes in this category are likely to have significant environmental effects. These determinations may be made on a case by case basis and/or by specifying types of plan or programme.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Table 1 below sets out the questions identified in the flow diagram above and provides answers and reasons with regards to the draft CAS. **The conclusion is that the draft CAS does require a SEA under the Directive.**

Establishing the need for SEA	Answer	Reasons	Next Step
1 Is the PP subject to preparation and/or adoption by a national, regional or local authority OR prepared by an authority for adoption through a legislative procedure by Parliament or Government? (Art 2 (a))	Yes	The draft CAS will be adopted by the Northern Ireland Executive when finalised.	Proceed to Question 2
2 Is the PP required by legislative, regulatory or administrative provisions? (Art 2 (a))	Yes	The draft CAS is required under Part III of The Environment Order (NI) 2002, which requires the Department to prepare an Air Quality Strategy.	Proceed to Question 3
3 Is the PP prepared for agricultural, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and county planning or land use, AND does it set a framework for future development consent of projects in Annexes I and II to the EIA Directive? (Article 3.2(a))	No	The draft CAS is not prepared for any of these sectors however it may be considered to set the framework for future development consent of projects.	Proceed to Question 4

4	Will the PP, in view of its likely effects on sites, require an assessment under Article 6 or 7 of the Habitats Directive)? (Art. 3.5)	Yes	Whilst the draft CAS is primarily focused upon human health protection, it is intended to significantly improve key indicators of conservation value (air quality). It is intended that there are positive effects under Article 6 or 7 of the Habitats Directive).	Proceed to Question 6
6	Does the PP set the framework for future development consent of projects (not just projects in Annexes to the EIA Directive)? (Art 3.5)	Yes	The draft CAS may be considered to set the framework for future development consent of projects.	CAS does require SEA.

Annex 2 of the Practical Guide to the SEA Directive sets out criteria for determining the likely significance of effects resulting from the strategy, referred to in Article 3(5). These were addressed as below in Section 3 of the draft CAS SEA Screening Report.

“The characteristics of plans and programmes, (in this case, a draft Strategy) having regard, in particular to:”

a) The degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.

The draft CAS sets in place a series of Strategic Objectives to help improve air quality in Northern Ireland. The Strategic Objectives apply across Northern Ireland and include commitments to –

- **Develop our evidence base** to provide a comprehensive baseline and a better build on our existing scientific air quality data. This will be important to inform future decisions and measure success.
- **Improve legislation** to help protect air quality and human health by introducing new ambitious PM_{2.5} and PM₁₀ limits/targets/objectives are intended to be introduced, following consultation.
- **Raise Awareness and change behaviour** by providing people with simple accurate knowledge they can use to make informed decisions and change their behaviour. Powerful Behaviour Change campaigns will be central to changing habits and improving air quality.
- **Working towards zero pollution** aiming to 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.
- **Delivering change through partners** to manage and improve Northern Ireland air quality. This will be achieved through working with our District Councils and the Local Air Quality Management (LAQM) regime and grant, to deliver positive change. The wide range of partners will also include Department of Economy, Department for Infrastructure, Department of Health, Department for Communities, Health NGOs, the Northern Ireland Environment Agency and the Public Health Agency. This list is not exhaustive and will be kept under review.

Please refer to Annex A of the draft CAS for further detail.

b) The degree to which the plan or programme influences other plans and programmes, including those in a hierarchy.

The draft CAS will have an influence on future air quality policies in Northern Ireland through the Strategic Objectives and associated Actions. Implementation of the Strategy's Actions will aim to improve Northern Ireland's air quality over a six-year period, primarily to the benefit of human health. The draft CAS will influence and be influenced by various strategies e.g. The draft Ammonia Strategy for Northern Ireland; The Environmental Improvement Plan; The Energy Strategy - Path to Net Zero Energy; The Climate Change Act (Northern Ireland) 2022, and Climate Action Plans.

It is important to note, that while air pollution and climate change share some similar sources, specifically in relation to the combustion of fossil fuels which generates carbon dioxide, we need to be cautious, as some conflicts as well as synergies exist. Thus, some strategies that have sought to lower carbon emissions e.g. the promotion of diesel or electric vehicles vs. petrol, or small-scale biomass combustion, particularly in urban areas, can raise levels of air pollutants. Messaging on how this plan/programme, influences other plans and programmes, is therefore important.

c) The relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development.

Delivery of the draft CAS will promote sustainable principles such as active travel instead of private vehicle transport. Sustainable principles also underpin the draft

strategy through phasing out coal and certain solid fuels for home heating. As discussed in b) above, we need to be cautious, as some conflicts as well as synergies exist.

d) *Environmental problems relevant to the plan or programme.*

Air pollution is first and foremost a human health problem. The draft CAS aims to put in place a range of measures to monitor, assess, review and manage our air quality for human health, which will subsequently benefit the environment. 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 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. Poor air quality also contributes to cancer risk. For the purposes of this draft strategy, policy development and actions are chiefly focused on the reduction of the main air pollutants that have direct effects on human health. Pollutants linked to environmental problems such as ammonia emissions and levels are the subject of other policy measures, for example the draft Ammonia Strategy.

e) *The relevance of the plan or programme for the implementation of Community legislation on the environment.*

The draft CAS is focused on improving human health, specifically protecting human health in Northern Ireland as air pollution affects people at every stage of life, and in particular, our most vulnerable. Protecting air quality long-term will assist Northern Ireland to meet local air quality targets, as well as working towards international

guidelines (e.g. the World Health Organisation (WHO) 2021 Guidelines [WHO global air quality guidelines: particulate matter \(PM2.5 and PM10\), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide](#)). There will be an element of community involvement through the Local Air Management (LAQM) Grant, which will focus on air quality awareness behaviour change e.g. use active travel, or cleaner fuels. Annex 2 of the Practical Guide to the SEA Directive also sets out criteria for determining the likely significance of effects and of the area likely to be affected, referred to in Article 3(5).

“Characteristics of the **effects and of the area likely to be affected**, having regard, in particular, to:”

a) *The probability, duration, frequency and reversibility of the effects.*

An objective of the draft CAS will be to strengthen our baseline data which we will use to monitor the change and inform policy decisions in the future, as well as helping to monitor air quality targets within the Department’s draft Climate Action Plan. Strengthening the evidence base should have no environmental impacts, but the evidence will be used to inform future decision making. It is not expected that awareness campaigns are likely to have a significant environmental impact and are a continuation of work already being carried out, but they are good place to start as many members of the public don’t realise many of their everyday habits are causing air pollution and harming their health.

b) *The cumulative nature of the effects.*

Positive cumulative effects of the draft CAS will start to be seen as the actions associated with this draft strategy start to be delivered, however, many of the actions at this stage are aimed at gathering evidence and promoting awareness. Some positive benefits of implementing the draft strategy will result in a cumulative improvement in air quality, but this may be limited during the initial six-year period. This would be subject to the appropriate environmental assessments if and when necessary, at that stage. Negative cumulative effects are not anticipated.

c) *The transboundary nature of the effects.*

Delivering the draft CAS may have small positive effects on air quality at a transboundary level. DAERA works closely with the other UK devolved administrations, as well as with Irish counterparts in the Department of Climate, Energy and the Environment (DCEE) to ensure the effects of transboundary air pollution are minimised. However, at present, Ireland have more air quality monitors than Northern Ireland and they also have more restrictions on burning solid fuel for home heating. The draft CAS will better align Northern Ireland to the air quality policies in Ireland and will develop a comprehensive evidence base through increased and improved monitoring data enabled by strong partnership and collaboration via the cross-border PEACE-Air Project. Any effects will be positive but limited in the initial six-years of this strategy.

d) *The risks to human health or the environment (e.g. due to accidents).*

There are no risks of accidents foreseen as a result of this draft strategy. Strategic objectives are to gather evidence, improve legislation and raise awareness. Risks are more likely, however, if the some of the actions and objectives set out in the draft

CAS are not delivered. Poorly managed air quality can lead to air pollution from vehicle transport, domestic solid fuel burning, industrial emissions, and agricultural emissions. It is anticipated that these risks should be mitigated against through full implementation of this draft strategy.

e) The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected).

The draft CAS will apply across Northern Ireland, covering approximately 5,456 square miles (14,130 km²). As of 2023 the population of Northern Ireland was estimated to be 1.92 million, with around 348,000 people living in the capital city of Belfast. The geographical extent of Northern Ireland, its population and its environment, should benefit from this strategy.

f) The value and vulnerability of the area is likely to be affected due to:

- i) special natural characteristics or cultural heritage;*
- ii) exceeded environmental quality standards or limit values; or*
- iii) intensive agricultural land-use.*

i) The draft CAS will need to be sensitive to known, or not yet known, sites of cultural heritage to ensure their protection, however, management of air quality will ultimately lead to positive changes for human health and the environment, which will have an economic impact. Reducing air pollution could yield considerable economic dividends in addition to the well-established health benefits.

ii) This strategy will set tighter environmental quality standards or limit values than are currently in place. It will improve air quality particulate matter legislation, introduce best practice World Health Organisation Interim Targets and will build on existing exceeded environmental quality standards or limit values.

iii) This Strategy will not introduce any intensive agricultural land-use into Northern Ireland. It will promote sustainability at its core.

g) The effects on areas or landscapes which have a recognised national, community or international protection status.

The draft CAS is primarily focused upon human health protection. The sources and actions therefore focus on urban sources of air pollution, e.g. vehicle emissions and domestic heating emissions. Any effects on areas or landscapes which have a recognised national, community or international protection status, are anticipated to be positive.

6. SEA framework

The assessment will take account of the criteria presented within Annex 2 of the SEA Regulations referred to above. Cumulative effects are also considered, i.e. the potential for the draft CAS to impact the baseline in combination with other plans, or unplanned activity.

The appraisal findings presented in this Environmental Report are therefore presented against each of the SEA themes rather than against each individual SEA topic, objective or assessment question.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Some important baseline sources include:

Northern Ireland DAERA annual report:

[air-pollution-in-northern-ireland-2024-issue1-print-optimised-6915a4eaa1e5b061262632.pdf](#)

DEFRA UK wide report:

[Air pollution in the UK 2024 - GOV.UK](#)

Transboundary impacts, see:

[Air Quality in Ireland 2024 | Environmental Protection Agency](#)

Health baseline:

[air-pollution-and-mortality-on-the-island-of-ireland-report.pdf](#)

7. Key stages of the SEA process

This SEA follows the process required by the SEA Regulation and the 'Practical Guide'.

The stages and outputs for the SEA are set out in Figure 5 below.

Figure 5 – Stages in the SEA process	
SEA stages and tasks	Purpose
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	
Identifying other relevant plans, programmes and environmental protection objectives	To establish how the plan or programme is affected by outside factors, to suggest ideas for how any constraints can be addressed, and to help to identify SEA objectives.
Collecting baseline information	To provide an evidence base for environmental problems, prediction of effects, and monitoring; to help in the development of SEA objectives.
Identifying environmental problems	To help focus the SEA and streamline the subsequent stages, including baseline information analysis, setting of the SEA objectives, prediction of effects and monitoring.
Developing SEA objectives	To provide a means by which the environmental performance of the plan or programme and alternatives can be assessed.
Consulting on the scope of SEA	To ensure that the SEA covers the likely significant environmental effects of the plan or programme.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Stage B: Developing and refining alternatives and assessing effects	
Testing the plan or programme objectives against the SEA objectives	To identify potential synergies or inconsistencies between the objectives of the plan or programme and the SEA objectives and help in developing alternatives.
Developing strategic alternatives	To develop and refine strategic alternatives.
Predicting the effects of the plan or programme, including alternatives	To predict the significant environmental effects of the plan or programme and alternatives.
Evaluating the effects of the plan or programme, including alternatives	To evaluate the predicted effects of the plan or programme and its alternatives and assist in the refinement of the plan or programme.
Mitigating adverse effects	To ensure that adverse effects are identified and potential mitigation measures are considered.
Proposing measures to monitor the environmental effects of plan or programme implementation	To detail the means by which the environmental performance of the plan or programme can be assessed.
Stage C: Preparing the Environmental Report	
Preparing the Environmental Report	To present the predicted environmental effects of the plan or programme, including alternatives, in a form suitable for public consultation and use by decision-makers.
Stage D: Consulting on the draft plan or programme and the Environmental Report	
Consulting the public and Consultation Bodies on the draft plan or programme and the Environmental Report	To give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report and to use it as a reference point in commenting on the plan or programme. To gather more information through the opinions and concerns of the public.
Assessing significant changes	To ensure that the environmental implications of any significant changes to the draft plan or programme at this stage are assessed and taken into account.
Making decisions and providing information	To provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final form of the plan or programme to be adopted.
Stage E: Monitoring the significant effects of implementing the plan or programme on the environment	
Developing aims and methods for monitoring	To track the environmental effects of the plan or programme to show whether they are as predicted; to help identify adverse effects.
Responding to adverse effects	To prepare for appropriate responses where adverse effects are identified.

The selected SEA themes incorporate the ‘SEA topics’ suggested by Schedule 2(6) of the SEA Regulations. The likely significant effects on the environment are then assessed, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as:

(a) biodiversity; (b) population; (c) human health; (d) fauna; (e) flora; (f) soil; (g) water; (h) air; (i) climatic factors; (j) material assets; (k) cultural heritage, including architectural and archaeological heritage; (l) landscape; and (m) the inter-relationship between the issues referred to in sub-paragraphs (a) to (l).

Plan Components	Environmental Topic Areas									
	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air	Climatic factors	Material assets	Cultural heritage	Landscape	Inter-relationship issues
Improved Air quality actions across key themes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

These topics were refined and grouped into the “SEA Themes” below to reflect a broad understanding of the anticipated scope of the policies and proposals for the draft CAS.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Theme 1- Biodiversity, Flora and Fauna

Theme 2 – Water, Marine & Coastal and Soil & Mineral Resources

Theme 3 – Historic Environment and Material assets

Theme 4 – Landscape and Seascapes

Theme 5 – Air quality, Climatic factors and Noise

Theme 6 – Healthy and Safe Communities

8. Baseline information and environmental issues.

The identification of environmental problems must be based on evidence related to baseline information. In line with the SEA Directive, this section describes the environmental baseline for the draft CAS. This includes: a description of the state of the environment at present; a discussion of the key problems and issues currently being faced in Northern Ireland; and a description of the expected evolution of the environmental baseline position and key trends likely to be experienced.

In response to the SEA Scoping exercise, NIEA's Natural Environment Division noted that the baseline information was disproportionately focused on Air Quality and referenced several resources that highlight the current state of the environment in Northern Ireland.

- Northern Ireland Environmental Statistics Reports: <https://www.daera-ni.gov.uk/articles/northern-ireland-environmental-statistics-report>
- Designated Scientific Sites: www.daera-ni.gov.uk/landing-pages/protected-areas
- Regional Landscape Character Map viewer: <https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer>

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

DAERA have a map browser for NI protected sites and known priority habitat:

www.daera-ni.gov.uk/services/natural-environment-map-viewer

Our natural environment datasets are available at the link below:

www.daera-ni.gov.uk/articles/download-digital-datasets

DAERA also has two map viewers in relation to the aquatic environment that may be of use, Water Information Request Web Viewer and NIEA Catchment Data Map Viewer both of which can be found at <https://www.daera-ni.gov.uk/articles/daera-map-viewers>

The Environmental Report (ER) should provide a comprehensive and proportionate baseline for all SEA topics scoped into the assessment rather than just focusing on air quality. Many of these topics and themes have recently been assessed for other DAERA plans, programmes and strategies. This has included Discussion Documents, Public Consultations, SEA Environmental Reports and Habitats Regulation Assessments.

To avoid duplication of work, some of the baseline information below has been sourced from other assessments carried out recently for DAERA, whereby those with specific expertise have already explored these issues in some detail. In most cases the baseline is likely to be much more significantly impacted by other environmental issues than Air Quality. Similarly, other DAERA initiatives are more likely to positively impact these topics than the draft CAS, where the focus is primarily improving air quality for the benefit of human health. The impacts of the draft CAS on the baselines for these topics, whilst positive, are often secondary and may be considered negligible in comparison to other impacts.

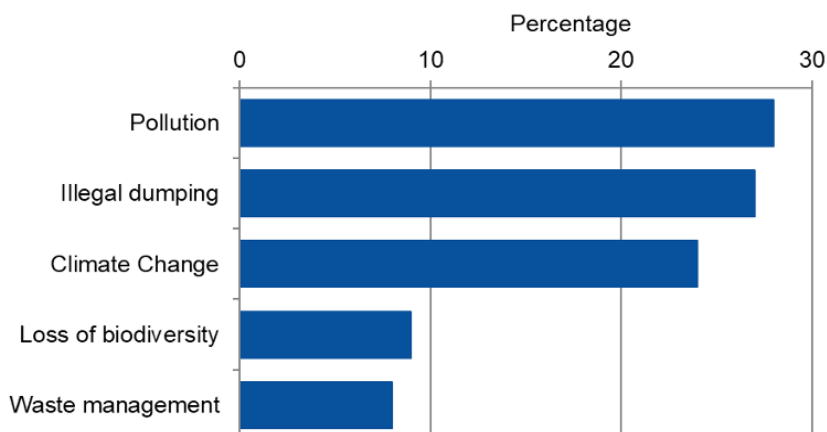
NIEA have suggested that the ER would ideally include an assessment of the likely evolution of the baseline environment in the absence of the plan. This has been considered as far as is reasonable below, however the presence or absence of the draft CAS would not represent a significant source of environmental impact for most of these receptors. It is felt that, in most cases there are too many other significant variables impacting these topics to predict this with any degree of accuracy. The final indicators will be informed by the views received following public consultation.

8.1 Current State of the Environment in Northern Ireland

Based on the <https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2025>⁹, the level of public concern about environmental issues was high in 2024/25, with 73 per cent 'very' or 'fairly' concerned about the environment.

⁹<https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2025>

Figure 3. Environmental problems considered most important, 2024/25



Source: Continuous Household Survey, NISRA

Note: Provisional data. Finalised information published in August 2025.

Pollution of air, water and soil and illegal dumping of waste and litter were the greatest environmental concerns for households (28 and 27 per cent respectively) in Northern Ireland in 2024/25. Other key issues of concern were loss of biodiversity and waste management.

8.2 Key Statistics

Air & Climate

- Roadside nitrogen dioxide levels have decreased from 40.6µg/m³ in 2012 to 22.6µg/m³ in 2024.
- In 2022, Northern Ireland's greenhouse gas emissions were estimated to be 21.3 MtCO₂e, a reduction of 26 per cent since 1990¹⁰.

¹⁰ Northern Ireland Statistics and Research Agency (DAERA). (2023, June 20). *Northern Ireland greenhouse gas statistics 1990–2021* (Statistical bulletin).

Water and Marine

- In 2024, soluble reactive phosphorus (SRP) was measured at 93 surveillance rivers across Northern Ireland giving an average concentration of 0.065 mg/l of phosphorus per litre of water.
- Of the twenty-five inshore coastal waterbodies delineated in Northern Ireland, 13 (52 per cent) have been assessed as being in 'good' or 'better' ecological condition.
- In 2024, there were 1,886 water pollution incidents reported, of which 887 (47 per cent) were substantiated (confirmed) as having an impact on the water quality of the receiving waterway.

Biodiversity

- In 2024/25, 54 per cent of features within Marine and Terrestrial protected sites were in 'Favourable' condition while 38 per cent were in 'Unfavourable' condition.

Historic Environment

- Listed buildings are those of special architectural or historic interest. The number of listed buildings in 2023/24 was 9,124, an increase of 11 per cent compared to 2003/04.

8.3 Environmental Characteristics

This section describes the environmental baseline information for Northern Ireland, of most relevance to the draft CAS. The baseline has been divided by themes and topics for the issues requiring assessment under SEA legislation and in response to the SEA Scoping exercise. The purpose of this section is to demonstrate the level of baseline environmental information used when assessing the potential effects of

<https://www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20Greenhouse%20Gas%20Statistics%201990-2021-Report.PDF>

implementing the draft CAS. This baseline information informs the indicators which the policies and targets within the draft CAS may influence. Future variation in these indicators owing to implementation of the draft CAS will be monitored as part of the draft CAS implementation and SEA review.

8.4 Baseline Theme 1- Biodiversity, Flora and Fauna

Biodiversity is the variety of all plants and animals, and the communities that they form. The conservation of biodiversity is important. Humans are also dependent on biodiversity for the provision of ecosystem services such as clean air, water, food, and shelter, as well as for the health and amenity value that the natural environment can provide.

The importance of preserving biodiversity has increasingly been recognised from an international to a local level, and Northern Ireland has legal obligations under International and EU commitments and legislation. The UN Convention on Biological Diversity (1992) is an international legally binding treaty with three main goals: conservation of biodiversity; sustainable use of biodiversity; and the fair and equitable sharing of the benefits arising from the use of genetic resources.

The most recent Biodiversity Strategy for Northern Ireland, “Valuing Nature”, was published by DAERA in 2015 and covered the period up to 2020. This set out how Northern Ireland planned to meet its international obligations and local targets to protect biodiversity, and to ensure that the environment can continue to support the population and economy of Northern Ireland.

Its overall mission was, “To make progress towards halting overall biodiversity loss, establish an ecosystem approach and help business and society in general have a greater understanding of the benefits that nature can bring to everyday life in Northern Ireland”. Following the UN Biodiversity Conference in December 2022 (COP15), a Global Biodiversity Framework (GBF) was agreed that aims to see 30% of land protected globally by 2030.

A new Biodiversity Strategy, the draft Nature Recovery Strategy for Northern Ireland¹¹ is currently in production, that will reflect the targets set out by the GBF. The draft CAS must also have regard for the Habitats Directive and the Birds Directive, as transposed through the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995, which require that any plan or project not directly connected with or necessary to the management of a European site but likely to have a significant effect on such a site, must undergo an Appropriate Assessment (AA) in view of best scientific knowledge and in view of the conservation objectives of the site. This is covered in more detail in the Habitats Regulation Assessment (HRA) AA which is published alongside this Environmental Report.

8.4.1 Biodiversity, Flora and Fauna baseline summary

Special Protection Area (SPA)

SPAs that are designated under the EU Directive on the Conservation of Wild Birds (EC/79/409), “The Birds Directive”, identify areas that are important for breeding, feeding, wintering or migration of rare and vulnerable bird species. There are 16 SPAs designated under The Conservation (Natural Habitats, etc.) Regulations

¹¹ <https://www.daera-ni.gov.uk/sites/default/files/2026-01/Draft%20Nature%20Recovery%20Strategy%20for%20Northern%20Ireland%20to%202032.pdf>

(Northern Ireland) 1995 (as amended) in Northern Ireland, nine of which have marine components as a primary factor for their designation.

Special Areas of Conservation (SAC)

Existing SACs in Northern Ireland were designated in accordance with the Habitats Directive (92/43/EEC) for the conservation of certain habitats and species.

Together SPAs and SACs formed part of the Natura 2000 network of protected sites prior to the UK's exit from the EU. There is now a UK National Site Network of European sites, comprising existing designated sites and any future sites designated under the Habitats Regulations. These sites in Northern Ireland are now referred to as European Sites. SACs and SPAs in Ireland remain part of the Natura 2000 site network.

Ramsar sites

Ramsar sites are designated under the "Ramsar Convention" (Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, Iran 1971), an international treaty for the conservation and sustainable use of wetlands.

There are 20 Ramsar sites designated under the Convention on Wetlands of International Importance (the Ramsar Convention) in Northern Ireland, seven of which have marine components as a primary factor for their designation.

Areas of Special Scientific Interest (ASSI)

Areas of Special Scientific Interest (ASSI) are protected under the Environment (Northern Ireland) Order 2002. This requires NIEA to designate land as an ASSI that it considers to be of special scientific interest, owing to the flora or fauna present, or the presence of geological features. Northern Ireland contains a total of 394 ASSIs. Regarding the habitats within these ASSIs, approximately 31% of habitat features

are in an unfavourable condition, whilst 69% are in a favourable condition. In terms of the species found within these ASSIs, approximately 22% are in an unfavourable condition, whilst 78% are in a favourable condition.

Marine Conservation Zones (MCZ)

Marine Conservation Zones (MCZs) protect nationally important marine species, habitats and features of geological or geomorphological interest. Priority Marine Features (PMF) is a collective term for the features considered to be of conservation importance in the Northern Ireland inshore region and form the basis of MCZ designation under the Marine Act (NI) 2013 and the UK Marine and Coastal Access Act 2009 for inshore and offshore regions, respectively. These sites should complement the marine components of sites designated under the Birds and Habitats Directives, coastal ASSIs and Ramsar sites, together forming a network of Marine Protected Areas (MPAs). There are five MCZs in Northern Ireland.

8.4.2 Key habitats and species

The Northern Ireland Biodiversity Action Plan, in addition to implementing UK-wide biodiversity priorities in Northern Ireland, identifies habitats and species that are of particular importance in the Northern Ireland context. Such habitats include fens, grassland, heathland, peatland, and woodland. Species identified as being particularly important in Northern Ireland include Irish Hare, Chough, Curlew, Red Squirrel.

The UK Land Cover Map 2015 reveals the proportion of land cover for habitat classes across Northern Ireland as follows:

3.3% broadleaved (6.1% UK average)

5.2% coniferous woodland (6.4% UK average)

6.8% arable (23.1% UK average)
57.3% improved grassland (30.4% UK average)
1.9% heather (4.0% UK average)
4.4% heather grassland (6.3% UK average)
6.5% bog (3.9% UK average)
0.6% urban (1.6% UK average)
3.5% suburban (5.6% UK average)
10.5% Other (12.6% UK average)

Updated and published in 2021 by the UK Centre for Ecology and Hydrology (CEH), the UK Land Cover Map 2022 shows the location of 21 broad land cover classes based on UK Biodiversity Action Plan (BAP) broad habitats. Available to view on the UK's Centre for Ecology and Hydrology's [website](https://www.ceh.ac.uk/),¹² high-resolution data for the whole of the UK can be observed.

8.4.3 Biodiversity, Flora and Fauna future baseline summary

Habitats and species will potentially face increasing pressures from future housing, population, employment, infrastructure delivery and agricultural intensification within Northern Ireland, with the potential for negative impacts on the wider ecological network. This may include a loss of habitats and impacts on biodiversity networks. The potential impacts on biodiversity, either directly or indirectly from the draft CAS are not likely to include significant changes in habitat, changes in species distribution, changes in hydrology or changes in ecosystem functioning.

¹² <https://www.ceh.ac.uk/>

Internationally and nationally designated sites are particularly sensitive to air quality issues and recreational pressures. Regarding air quality, exceeding critical values for air pollutants may result in changes to the chemical status of habitat substrate, accelerating or damaging plant growth, altering vegetation structure and composition thereby affecting the quality and availability of nesting, feeding or roosting habitats. Additionally, the nature, scale, timing and duration of some human activities can result in the disturbance of species at a level that may substantially affect their behaviour and consequently affect the long-term viability of their populations.

To maintain and improve the condition of biodiversity in the future, it will be important to not only protect and enhance key habitats but the connections between them. It will be crucial to effectively coordinate the delivery of infrastructure to ensure that opportunities to improve green infrastructure and ecological corridors are maximised.

Planning policy can proactively promote biodiversity enhancement and support wider ecological connectivity, i.e. delivering on Biodiversity Net Gain (BNG) and the greening of urban areas to address impacts of climate change. BNG is not currently mandatory in Northern Ireland. Unlike England, where a 10% mandatory BNG requirement is enforced under the Environment Act, Northern Ireland's planning system operates independently. As part of proposals within the draft Northern Ireland Nature Recovery Strategy DAERA is proposing an action to explore and review options around the adoption of a BNG approach within the planning system.

There is the potential for carbon sequestration opportunities to be capitalised upon, in the form of woodland, wetland and grassland creation/ recreation/ improvement. In addition, planning requirements to achieve BNG may be implemented as part of the

development of future infrastructure, through careful planning and design strategies that enhance local biodiversity.

8.5 Baseline Theme 2 – Water, Marine & Coastal and Soil & Mineral Resources

Further to feedback from the SEA Scoping exercise, Marine and Coastal topics have been included alongside Water, with Soil and Mineral Resources being considered separately within this theme.

8.5.1 Water, Marine & Coastal baseline summary

The water resources located within Northern Ireland include a network of main rivers, lakes (including Lough Neagh, which is the largest freshwater lake in the British Isles by area), small streams, brooks, drainage ditches and small pools located within and adjacent to field margins.

There are 571 water bodies in Northern Ireland, of which 496 are surface water bodies. This includes 450 rivers, 21 lakes, and 25 transitional and coastal waters (marine). The remaining 75 water bodies are groundwater resources.¹³

River monitoring is carried out routinely by DAERA against Water Framework Directive (WFD) standards. This monitoring includes chemical and biological indicators of ecological water quality, with the overall water body classifications being high, good, moderate, poor, and bad. In 2018, 31.3% of Northern Ireland's river water bodies were classified as 'good' or 'better', which represents a slight decline

¹³ <https://www.daera-ni.gov.uk/publications/water-classification-statistics-northern-ireland-2024-report>

since 2015, when 32.7% of river water bodies were classified as ‘good’ or ‘better’. In 2024, 131 (29 %) of the 450 river water bodies were classified as good or high ecological status.

The key issues preventing water bodies from reaching ‘good’ status can be attributed to physical modifications; pollution from towns, cities, and transport; and changes to the natural flow and levels of water.

The Water Framework Directive (WFD) is implemented through River Basin Plans, creating a six-yearly cycle of planning, action, and review. The second planning period covered the period December 2015 to December 2021. The 3rd cycle River Basin Management Plan for Northern Ireland covers the period from 1 January 2022 to 31 December 2027.¹⁴ The WFD requires NIEA to protect the status of the water bodies from deterioration and where necessary and practicable to restore water bodies to ‘good’ status. The third cycle of River Basin Plans was published in June 2025.

Water is essential for the maintenance of biodiversity, supports the population through the provision of drinking water and rivers, lakes, estuaries, seas, and groundwater sustain many core activities. Although there have been improvements in drinking water quality and water utility discharge quality, and a decrease in incidents of water pollution, the most recent status of WFD surface waterbodies in Northern Ireland (2021) highlights that none have achieved a good or high overall status.¹⁵

¹⁴ <https://www.daera-ni.gov.uk/publications/third-cycle-river-basin-management-plan-supporting-documents>

¹⁵ <https://www.daera-ni.gov.uk/publications/northern-ireland-water-framework-directive-statistics-report-2021>

While the overall failure for any waterbodies to achieve a good or high status relates to an update in the monitoring of persistent chemicals, as discussed below, pressure assessments have identified that two significant pressure sources related to nutrients are continuing to prevent the achievement of good status for waterbodies: agricultural activities and sewage-related problems.¹⁶

An excessive supply of nutrients to waterbodies, particularly nitrogen and phosphorus, can lead to eutrophication, whereby these elevated concentrations result in accelerated growth of plants and algae. This reduces oxygen levels in the system, which can cause a loss of sensitive species and impact upon the ecological status of the waterbody. Elevated nutrient concentrations, arising from both point (e.g., sewage discharges) and diffuse (e.g., agricultural runoff) anthropogenic sources, represent the most significant threat to water quality in Northern Ireland. In freshwaters, phosphorus is usually the limiting nutrient for plant and algal growth, whereas in marine waters nitrogen is generally the limiting nutrient. Water quality can also be adversely affected through the addition of hazardous substances such as pesticides and heavy metals, specific pollutants and microbial contamination.

The key environmental issues for water, marine and coastal topics comprise:

- Potential for effects on the ecological status of WFD surface waterbodies via changes in the levels of nutrient pollution and sedimentation;
- Potential for effects on the status of WFD Protected Areas, including for water-dependent habitats and species, economically significant aquatic species, drinking water, recreation and nutrient sensitive areas;

¹⁶ <https://www.daera-ni.gov.uk/news/third-cycle-river-basin-management-plan-2021-2027-published>

- Potential for effects on nutrient concentrations within freshwater and marine waterbodies;
- Potential for effects on groundwater quality, including the potential for microbial and chemical contamination of drinking water supplies; and
- Potential effects of topography and land use practices to risk of nutrient and sediment loss and subsequent water pollution.

There have been significant changes in the monitoring and overall classification for rivers, lakes, and transitional and coastal waterbodies. New priority substances were introduced into the monitoring programme in 2018, and the 'chemical status assessment' now includes the presence of ubiquitous, persistent, bioaccumulative, toxic (uPBT) substances. Although a number of these substances are now banned or have restricted use, their widespread past use has resulted in accumulation in the aquatic environment and breaching of Environmental Quality Standards (EQS). These substances were found at all monitoring stations, and uPBT failures were extrapolated to all surface waterbodies across Northern Ireland; as the 'Overall Surface Water Status' from 2021 incorporates the chemical classification including uPBT substances, as well as cypermethrin failures, this has resulted in no waterbodies meeting a good or high 'Overall Surface Water Status'.

WFD waterbodies are monitored on a rolling programme within each river basin management planning cycle. 'Waterbodies' are the basic management units for reporting and assessing compliance with the environmental objectives of the WFD Regulations. There are 496 WFD surface waterbodies in Northern Ireland, comprising 450 rivers, 21 lakes and 25 transitional and coastal waters. The latest

classification results for surface waterbodies are presented in the Water Classification Statistics for Northern Ireland 2024 Report¹⁷

River status – In 2018, 31% (141 rivers) of the 450 river waterbodies monitored in Northern Ireland were classified as good or high ecological status. In 2021, 31% (140 rivers) achieved good or high ecological status, and in 2024 29% (131 rivers) achieved good or high ecological status. In 2024, 17% of monitored rivers in the North East RBD, 22% in the Neagh Bann RBD and 44% in the North West RBD achieved good or high ecological status. Considering chemical status with the exclusion of uPBT and cypermethrin, 91% of river waterbodies were classified as good status in 2018, 93% in 2021 and 92% in 2024. In 2024, 94% of monitored rivers in the North East RBD, 90% in the Neagh Bann RBD and 93% in the North West RBD achieved good or high chemical status.

Transitional and Coastal status – In 2018, 2021 and 2024, 40% (10) of the 25 transitional and coastal waterbodies monitored in Northern Ireland were classified as good ecological status. In 2024, 47% of monitored transitional and coastal waterbodies in the North East RBD, 40% in the Neagh Bann RBD and none in the North West RBD achieved good ecological status. Considering chemical status with the exclusion of uPBT and cypermethrin, 44% of transitional and coastal waterbodies were classified as good status in 2018, 88% in 2021 and 32% in 2024. In 2024, 35% of monitored transitional and coastal waterbodies in the North East RBD, 40% in the Neagh Bann RBD and 0% in the North West RBD achieved good chemical status.

¹⁷ <https://www.daera-ni.gov.uk/publications/water-classification-statistics-northern-ireland-2024-report>

Lake status – In 2018, 24% (5) of the 21 lake waterbodies monitored in Northern Ireland were classified as good ecological status. In 2021, 14% (3 lakes) achieved good ecological status, and in 2024 24% (5 lakes) achieved good ecological status. In 2024, 33% (1) of monitored lakes in the North East RBD, 20% (2) in the Neagh Bann RBD and 25% (2) in the North West RBD achieved good or high ecological status. Considering chemical status with the exclusion of uPBT and cypermethrin, all lakes were classified as good chemical status in 2018, 2021 and 2024.

Comparison of ecological status shows little to no change in status from the previous reporting, and a decline in status for lake waterbodies. Pressure assessments have identified that agricultural activities and sewage-related problems are continuing to prevent the achievement of good status for waterbodies.

8.5.2 Water, Marine & Coastal future baseline summary

Population growth in most areas, future development and climate change combined are likely to increase pressure on water resources. Climate change could likely increase flooding which could lead to adverse effects on water quality from overflowing of storm water drains and leaching of contaminated soils into surface waters. However, water companies are required to comply with water supply quality and discharge regulations and should therefore maintain adequate water supply and wastewater management arrangements. The requirements of the Water Framework Directive are intended to lead to continued improvements to water quality within Northern Ireland.

8.5.3 Soil and Land baseline summary

Land is a limited resource with competition for use for agriculture, forestry, and other uses. The value and use of the land will generally depend on its quality, location and any restrictions placed on it. The Agricultural Land Classification (ALC) system broadly aligns to the classifications given to land within England and Wales, subdividing Grades 3 into a and b, with Grades 1, 2, and 3a being classified as 'best and most versatile' land ("BMV land").

Northern Ireland has significant natural resources such as carbon-rich soils (including substantial peatland) and high-quality grassland cover.

The Agri-Food and Biosciences Institute (AFBI) revealed that Northern Ireland contains:

- 0% Grade 1,
- 7.1% Grade 2,
- 23.9% Grade 3a,
- 26.1% Grade 3b,
- 30.6% Grade 4, and
- 7.8% Grade 5 land (which includes urban land).

The remaining 4.5% of Northern Ireland is water. In this context, with approximately 33% of land cover within Northern Ireland classified as Grade 2 or 3a, there is a need to avoid loss of higher quality BMV land.

Public Authorities (i.e. government departments, councils, non-departmental public bodies and arms-length bodies), the Crown Estate and charities own considerable areas of land in Northern Ireland. Most land, however, is owned by private landowners, primarily farmers. Land management is strongly influenced by government and EU policies under the Northern Ireland Protocol and financial

measures. The current focus is on the reduction of nutrient loading in Northern Ireland, particularly considering the blue green algae issue in the Lough Neagh.

The impact of agriculture on nutrient loading is being tackled through the updated Nutrient Action Programme, Sustainable Catchment Plan (SCP) and Farming with Nature (FwN, to incentivise sustainable land use¹⁸). A Lough Neagh Report and Action Plan specific to blue green algae has also been published by DAERA¹⁹. Significant work is ongoing, testing fields across Northern Ireland via the Soil Nutrient Health Scheme. Soil is important in Northern Ireland for the role it plays both in supporting agriculture and in forming important natural habitats, and the degradation of soil resources threatens both these interests.

The Soil Nutrient Health Scheme ²⁰ is the largest baseline soil sampling programme undertaken globally. It is being coordinated by AFBI and running for four years (2022-2026) and consider up to 700,000 fields within Northern Ireland. It will provide comprehensive regional soil nutrient baseline information and provide farmers with detailed information on the nutrient status of their soils. The collection of high-resolution Light Detection and Ranging (LiDAR) data will provide information via hydrological modelling on the areas of highest risk for runoff from fields and subsequent nutrient losses to waterbodies. This information should help to optimise nutrient management for the application of slurry and fertilisers, whilst improving farm profitability, as well as reducing nutrient loss to waterbodies, therefore contributing to achieving the aims of the NAP. The Soil Nutrient Health Scheme will also estimate the carbon stored both within soils and as above ground biomass for

¹⁸ [Muir takes action on water quality and Lough Neagh | Department of Agriculture, Environment and Rural Affairs](#)

¹⁹ The Lough Neagh Report, Blue Green Algae and Water Quality in Northern Ireland, July 2024, DAERA

²⁰ [Nutrients Action Programme 2027-2030](#)

each farm in Northern Ireland, with the aim of contributing to the transition to Net Zero farming in Northern Ireland. In the scheme, uptake by farm businesses was over 92%, with participation required to be eligible for the incoming Farm Sustainability Payment by DAERA.

Agri-environment schemes encourage farmers and landowners to manage their land in a manner that benefits the environment (specifically to enhance biodiversity, improve water quality, enhance the landscape and heritage features, and help reduce the impact of climate change) by integrating sustainable environmental management into the everyday workings of the farm. In return for this, farmers and landowners receive a payment, based on the area of habitat and archaeological features present on the farm, and the area/length of habitat enhancement options carried out.

The topography of Northern Ireland is such that areas of lower elevation are predominantly located within the centre, where the largest lake in the British Isles, Lough Neagh, is situated. In all directions from this point, the land generally becomes steeper, culminating in highland regions on all sides. The Antrim Hills, which reach a height of over 550m at Trostan, are to the north and east. To the south-east, the rounded landscape of drumlin hills is punctuated by Slieve Croob in County Down and culminates in the Mourne Mountain range which rises to its highest point at Slieve Donard at over 850m in elevation. Land use in Northern Ireland, as identified within the most recent Corine dataset (2018). The predominant land use is 'Pastures' (8,889km²), followed by 'Natural grassland' (1024km²), 'Moors and heathland' (640km²) and 'Peat bogs' (550km²). Pastures, which comprise approximately 63% of land cover across Northern Ireland, are located across the country, with the exception of upland areas such as the Mourne Mountains in the

south-east, the Antrim Hills in the north-east, the Sperrins in the west and raised bog peatland areas in mid-Ulster. Approximately 77% of the total Northern Ireland land area (1.35 million hectares) is used for agriculture, including common rough grazing, and around 9% of the land area is used for forestry. Most farmland in Northern Ireland is under grass, in fact only 1,767 farms (6.7%) have arable or horticultural crops. In 2024, cattle and sheep were present on 20,652 farms indicating the dominance of cattle within farming livestock in Northern Ireland. In addition, pigs and/or poultry (for commercial purposes) were present on 743 farms.

Dominant Land Cover Types within Northern Ireland:

Land Cover Class	Total Land Cover (km ²)	% of Total
Pastures	8,889	63
Complex Cultivation Patterns	227	2
Peat Bogs	550	4
Land Principally Occupied by Agriculture	243	2
Natural Grassland	1024	7
Coniferous Forest	463	3
Moors and Heathland	640	5
Non-Irrigated Arable Land	405	3
Urban (Continuous urban fabric)	30	0
Sub-urban (Discontinuous urban fabric)	249	2

8.5.4 Soil and Land future baseline summary

Soil erosion is likely to continue due to surface water flash flooding and other causes. Compaction and sealing is also likely to continue, for example through an increase in developed areas and impermeable surfaces. Continued pressure for

development and new infrastructure within the undeveloped areas of Northern Ireland has the potential to displace areas of BMV land. There is potential pressure for development and increasing urbanisation leading to the loss of BMV land.

8.5.5 Mineral Resources baseline summary

Mineral resources are defined as natural concentrations of minerals or, in the case of aggregates, bodies of rock that are, or may become, of potential economic interest due to their inherent properties. They make an essential contribution to the country's prosperity and quality of life. Since minerals are a non-renewable resource, minerals safeguarding is the process of ensuring that non-mineral development does not needlessly prevent the future extraction of mineral resources, of local and national importance.

Northern Ireland is underlain by extensive deposits of economically valuable minerals. There are nearly 600 occurrences of economic minerals and approximately 1,800 abandoned mine workings, mostly dating from the last century. The bulk of mineral commodities, which are largely natural sand, gravel, and crushed rock aggregate plus rock for cement manufacture, are mostly obtained through quarrying. A variety of industrial minerals are also present in Northern Ireland. For instance, at County Antrim's Carrickfergus mine approximately 500,000 tonnes of rock salt are mined underground each year and processed for winter road-gritting across Ireland, Scotland, parts of the UK, and exported as far as the USA²¹. In County Antrim's inter-basaltic laterite layers, Bauxite is a sedimentary rock, rich in aluminium minerals present in a composition up to 62%. Its primary use is as a source of alumina; however it is also used in refractories, abrasives and cement additives.

²¹ [Home - IRISH SALT MINING & EXPLORATION COMPANY LTD](#)

Perlite, a naturally occurring volcanic glass, expands dramatically when rapidly heated. This lightweight, porous material finds widespread use in construction (e.g. insulation boards, plasters), filtration systems (such as water, food, and beverage filters), and horticulture, where it improves aeration and moisture retention in growing media. Significant beds of gypsum and anhydrite occur in the Lower Carboniferous strata of County Fermanagh, especially within the Belfast Harbour Evaporite Formation. While not currently exploited on a large scale, these deposits are recognized as locally abundant within the regional geological record.

Northern Ireland extracts 27.3 million tonnes of materials, of which 16.5 million tonnes are non-metallic primary minerals, (basalt and igneous rock, sandstone, sand, gravel and limestone). 10.4 million tonnes of biomass crop and 0.4 million tonnes of fossil fuel (peat). Extracted minerals are then processed into products for the construction sector. Two thirds of the raw material needs of the country are extracted from abroad and imported²².

Impacts on material assets associated with the draft CAS proposed objectives, actions and targets are not significant and any development resulting from the draft CAS would be deemed to be site-specific and limited to the immediate area.

Summary of Existing Pressures and Issues for Geology, Soils and Land use

Existing pressures and issues for geology across Northern Ireland relate to the presence of permeable sedimentary bedrock or where the occurrence of fracture flows results in highly productive aquifers, such as those in the north-east Antrim Hills and south-west Fermanagh Lakelands. Where these areas are overlain by freely draining soils, nitrates may be leached into groundwater or into nearby waterbodies and therefore may be transported considerable distances from source.

²² The Circularity Gap Report Northern Ireland, Circle Economy,

In general, the areas of highest groundwater vulnerability are those with bedrock outcrops present, or where glacial sand and gravels are present, particularly in areas of higher elevation such as the Antrim Hills, Mourne Mountains and Sperrin Mountains. Phosphates on the other hand, are generally easily bound to minerals in well drained soils, but in poorly draining or waterlogged soils, can be mobilised during runoff and erosion, and as such, streams, lakes, and other waterbodies in the vicinity of the source are at highest risk of increased phosphorus concentrations.

This is particularly important, given that Stagnosols (which are given their name due to stagnating surface water) are the most abundant soil type across Northern Ireland, particularly in areas of lower elevation. As a result, there is potential for widespread phosphorus mobilisation in these lowland areas. Since the first Nitrates Action Programme Regulations, which became effective in 2007, nitrates in fertilisers and feedstuffs have contributed similar levels to inputs. In general, nitrate outputs, which are those outputs from animal production, have been steadily increasing annually, which is as expected, given improvements in technology and efficiencies in farming. However, since 2007, the nitrate balance has had multiple peaks and troughs with an overall increasing trend, primarily due to increased nitrate in imported feedstuffs. Phosphorus follows a similar trend, with contributions from fertilisers and feedstuffs gradually increasing, however contributions from feedstuffs have increased to approximately three times higher than fertilisers. Since 2008, the phosphate balance has again had multiple peaks and troughs, with an overall increasing trend, particularly since 2015. These peaks and troughs may coincide with entry, exit and contribution to various agri-environment schemes. At present, only 61,000ha of agricultural land is being managed under agri-environment scheme agreements.

8.5.6 Mineral Resources future baseline summary

The consumption of natural resources to support the delivery of new development and infrastructure in Northern Ireland has a negative environmental effect. The use of sustainable or renewable resources should be prioritised in line with a circular economy to reduce the reliance on primary extraction of natural resources. This could also include the reuse of existing resources. None of the actions in the draft CAS are likely to have any significant impacts on mineral resources.

8.6 Baseline SEA Theme 3 Historic and Cultural Environment

Historic and cultural heritage, including archaeological heritage and architectural heritage, are places and objects of beauty, cultural, historic, scientific, social, or spiritual value. They include archaeological monuments, world heritage sites, protected structures, designed landscapes, place names, language, and inherited traditions. Northern Ireland is rich in cultural, archaeological and architectural heritage, with many important archaeological sites, monuments and heritage buildings. Marine cultural heritage in Northern Ireland is rich, and includes features such as submerged landscapes, harbours and jetties, fish traps and quays and wrecks. Examples include, wrecks of the Spanish Armada ship, La Girona (1588), off the Antrim coast, Mesolithic shorelines off Portrush and Ballycastle, Medieval tidal fish traps and a 7th-century tidal mill at Nendrum in Strangford Lough.

Built heritage in Northern Ireland has been adversely affected by population growth and expansion of the agricultural sector since the 18th century, with major landscape changes such as marginal land reclamation and removal of peatland occurring since the UK joined the EU in the 1970s. According to From Evidence to Opportunity, A Second Assessment of the State of Northern Ireland's Environment (NIEA, 2013)²³,

²³ From Evidence to Opportunity, A Second Assessment of the State of Northern Ireland's Environment (NIEA, 2013) <https://library2.nics.gov.uk/pdf/drd/2015/0398.pdf>

the archaeological resource is at risk from agricultural land use practices, and from urban development. While archaeology and built heritage in urban areas tends to be most susceptible to impacts associated with development, resources in rural areas are susceptible to impacts associated with agriculture, particularly through cultivation, but also through stock density and machinery use. The erection of large structures and associated infrastructure on farmlands that are exempt from planning requirements can have both direct and indirect impacts on archaeological sites and other heritage assets.

8.6.1 Historic and Cultural Environment baseline summary

There are 51,820 recorded heritage assets within Northern Ireland that have been included in the Historic Environment Record of Northern Ireland (HERoNI). These include:

- 17,855 entries on the Sites and Monuments Record
- 15,383 recorded historic buildings
- 15,704 Industrial Heritage Record sites
- 738 Defence Heritage Record sites
- 738 Battlefield sites
- 663 Historic Parks and Gardens Record sites
- 340 Historic Wrecks
- 399 Historic Nucleated Urban Settlements (including those with identified areas of archaeological potential).
- There are also over 12,000 designated heritage assets in Northern Ireland.

These include:

- 190 Monuments in State Care.

- 2,053 Scheduled Historic Monuments
- 2 Protected Wrecks
- 9,124 Listed Buildings (Listed Buildings are those designated through listing as being of 'special architectural or historic interest' under Section 80 of the Planning Act (NI) 2011).
- 300 Historic Parks and Gardens of Special Historic Interest (A Register of Parks, Gardens and Demesnes of Special Historic Interest was established in the late 1990s to identify those sites that can be considered of exceptional importance within Northern Ireland)
- 58 Conservation Areas.

Historic Parks, Gardens and Demesnes form part of the HERoNI, and are identified based on these records for protection in the Local Development Plan (LDP) process. Local Landscape Policy Areas (547 no.), Areas of Significant Archaeological Interest (ASAI) (10 no., representing distinctive areas of the historic landscape in Northern Ireland), and Areas of Townscape / Village Character (177 no.) are LDP designations which may include assets recorded by HERoNI.

There is one coastal UNESCO World Heritage Site in Northern Ireland, the Giant's Causeway, designated for its unique geological heritage. A further World Heritage Site at the Gracehill Moravian settlement was designated in 2024. Navan Fort is also tentatively included on Ireland's World Heritage Tentative list as part of the six pre-historic monuments and sites bid – the 'Royal Sites of Ireland'. There are also a small proportion of heritage at risk sites that include long term vacant, neglected, structurally unsound or unsecured properties. The majority of these are listed buildings. It is important to note that The HERoNI archive is still growing, with new assets added as new information is provided.

8.6.2 Historic and Cultural Environment future baseline summary

New employment and infrastructure provision within Northern Ireland has the potential to impact on the fabric and setting of heritage assets, for example, through ground disturbance and inappropriate design and layout. It should be noted, however, that existing historic environment designations offer a degree of protection to heritage assets and their settings, and there are a range of existing initiatives to enhance the historic environment across Northern Ireland. Future impacts associated with climate change, such as flooding, increased rainfall, coastal erosion and global warming also pose a threat to heritage assets.

Heritage assets have specific vulnerabilities to climatic changes, which are dependent on their nature and location. At present, 1,148 heritage assets, including 9% of listed buildings²⁴, are on the Heritage at Risk register, while 3% of Scheduled Historic Monuments are considered to be in poor condition²⁵. Environmental protection policies since the 1980s have brought protection to known archaeological sites and have incentivised good management practices; however, protected and unprotected sites are considered to remain at risk from arable practices and urban development. Considering the high proportion of land in Northern Ireland that is in agricultural use, many archaeological and heritage features are found on farmland. The Condition and Management Survey of the Archaeological Resource (CAMSAR) Report²⁶, published in 2009, recognised prehistoric monuments present within arable and improved grassland as being the most vulnerable.

²⁴ [Heritage at Risk Northern Ireland \(H.A.R.N.I.\) - UAH](#)

²⁵ [NI Heritage Statistics](#)

²⁶ [CAMSAR_Report.pdf](#)

The draft CAS is predicted to have very limited impact on the Historic Environment, as the focus of the draft CAS is on improving air quality for human health. There is the potential for the baseline for Historic Environment to be improved slightly, however, this is likely to be negligible compared to other issues impacting this topic.

The draft CAS may result in some benefits to the Cultural Environment. If pollutants were less of a barrier, those who are vulnerable to poor air quality could potentially have improved access to the Cultural Environment.

8.7 Baseline SEA Theme 4 – Landscape & Seascape

‘Landscape’ is defined by the European Landscape Convention as ‘an area as perceived by people whose character is the result of the action and interaction of natural and/or human factors’ and ‘it concerns landscapes that might be considered outstanding as well as every day or degraded landscapes’.

Northern Ireland has attractive, largely unspoilt, and high-quality rural landscapes, numerous protected area designations and major rural tourism attractions.

Landscape forms an important part of Northern Ireland’s identity and culture, which influences the economy and the wellbeing of the population.

The current landscape of Northern Ireland is a product of land use changes and human interventions that have taken place in the c.9,000 years since the area was first settled. Although population growth in the late 20th and early 21st centuries expanded the extent of built-up areas, the Northern Ireland landscape remains predominantly rural, with agriculture the most prevailing land use.

HED Historic Environment Digital Datasets²⁷ provides current information on recorded (designated and non-designated) heritage assets, which is also available to view on their Historic Environment map viewer. This evidence base helps inform an assessment of the likelihood of significant environmental effects on cultural heritage including but not limited to, consideration of impacts for heating historic buildings, industrial heritage skills & crafts, reuse of linear heritage assets for active travel and impacts for unidentified heritage sites etc. Information on Conservation Area boundaries and guidance is available at <https://www.infrastructure-ni.gov.uk/articles/conservation-area-guides-z-list>

8.7.1 Landscape & Seascape baseline Summary

Areas of Outstanding Natural Beauty

Through the Nature Conservation and Amenity Lands Order (Northern Ireland) 1985 (NCALO), the finest landscapes with the highest scenic value in Northern Ireland can be designated as Areas of Outstanding Natural Beauty (AONBs). These areas cover approximately 325,000 hectares, or c. 20% of the total land area of Northern Ireland. There are eight AONBs that are primarily located along Northern Ireland's coastline, except for Lagan Valley and Sperrin. The AONBs are:

- Antrim Coast and Glens
- Binevenagh
- Causeway Coast
- Lagan Valley
- Mourne
- Ring of Gullion

²⁷ <https://www.communities-ni.gov.uk/publications/historic-environment-digital-datasets>

- Sperrin
- Strangford and Lecale

There is one UNESCO World heritage Site, the Giant's Causeway, Co. Antrim.

In addition, the Northern Ireland Landscape Character Assessment 2000, described below, identified special landscapes that it termed Areas of Scenic Quality. Some of these areas have been included in Local Area Plans, where they may be designated as Areas of High Scenic Value (AoHSV).

In Ireland, there are six areas designated as National Parks, as they are recognised as nationally important landscapes; none of these areas are in proximity to the border with Northern Ireland.

Seascape Character Areas

There are a total of 24 Regional Seascape Character Areas around the coast of Northern Ireland, which "...represent a unique geographic area of land, intertidal and marine area with a recognisable sense of place and identity"²⁸.

These are:

- Ards Peninsula
- Atlantic
- Ballycastle Coast
- Belfast Harbour
- Belfast Lough
- Carlingford Lough
- Causeway Coast

²⁸ [Northern Ireland Regional Seascape Character Assessment](#)

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

- Dundrum Bay
- Foyle Estuary
- Irish Sea - South Down
- Larne Lough
- Lecale Coast
- Lough Foyle
- Mourne Coast
- Newry Estuary
- North Channel
- North Coast Strands & Dunes
- Northern Glens Coast
- Rathlin
- Southern Glens Coast
- Strangford Lough
- The Gobbins
- The Skerries & Dunluce Coast
- Torr Head Coast

Visual amenity

It is useful to note that the views across the region are also an important consideration in the planning process as the scale, height and mass of development can ultimately impact important views if they are not considered and assessed through the process. Changes due to both development and landscape manipulation can degrade these views over time.

In this respect, views experienced from the road and rail networks can often be far-reaching and dramatic, particularly within more rural areas of Northern Ireland, coastal areas, within AONBs, and on approach into key towns and cities.

8.7.2 Landscape & Seascape future baseline summary

Investment in the right types of infrastructure in the appropriate locations should be encouraged through collaboration with the private sector to enable suitable locations for development. DAERA currently comments and responds accordingly to all input requests that are submitted to DAERA for the planning of infrastructure.

Infrastructure changes directly associated with the draft CAS are predicted to be very low impact. Examples include low-cost air quality monitors and diffusion tubes temporarily located on lamp posts, additional monitors located with existing air quality monitoring station cabinets with no additional visual impact. The draft CAS should result in some new air quality monitoring, the locations of which have yet to be determined. The primary focus of placing these monitors will be capturing representative air quality samples.

Monitoring stations are usually classified according to the type of environment in which they are located. This allows more meaningful evaluation of the data and allows the data user to compare data from sites of a similar type. The monitoring site classifications are used by District Councils for Local Air Quality Management purposes. These site descriptions typically reflect the general surroundings (e.g. urban or rural), and/or indicate important sources of pollution (e.g. 'roadside' or 'industrial').

While the visual impact will be a secondary consideration, it remains an important consideration. These structures are typically under two meters in height, approximately one meter deep and two metres wider. Examples can be seen at:

<https://www.airqualityni.co.uk/site/LVD2#site-photos>

8.8 Baseline SEA Theme 5 - Air Quality and Noise

Air quality in Northern Ireland has improved substantially in recent decades. Concentrations of sulphur dioxide, a pollutant associated with coal and oil combustion, have declined significantly over the past twenty years. However, some pollutants in some parts of Northern Ireland continue to exceed air quality objectives.

8.8.1 Air Quality and Noise baseline summary

Air Quality Management Areas

There are currently 19 Air Quality Management Areas (AQMAs) in Northern Ireland, spread across nine district councils. Of these AQMAs, the majority have been declared due to exceedances in the objectives for nitrogen dioxide (NO₂); however, some have been declared due to exceedances in the objectives for particulate matter (PM₁₀).

These AQMAs are largely concentrated in the main cities and towns within Northern Ireland. The largest AQMA is the Armagh City, Banbridge and Craigavon Borough Council AQMA, which covers the entire district council. The AQMA encompasses the following key routes along Northern Ireland's road network: M1, A1, A3, A27, and the A28. District Council Action Plans (DCAPs) are currently not available for any of the 19 AQMAs in Northern Ireland.

8.8.2 Northern Ireland's 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.

8.8.3 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 (SO₂), a pollutant associated with coal and oil combustion, have declined significantly since the 1990s, and a decreasing trend in nitrogen dioxide (NO₂) 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 of the draft CAS. 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.

In 2024, Northern Ireland met the limit values and target values of the Air Quality Standards Regulations (Northern Ireland) 2010 (AQSRNI). 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.

8.8.4 Northern Ireland source emissions: 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 the 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.²⁹ Further detail on Northern Ireland emissions is set out in Annex D of the draft CAS.

Table 2: Changes in emissions for key pollutants in Northern Ireland

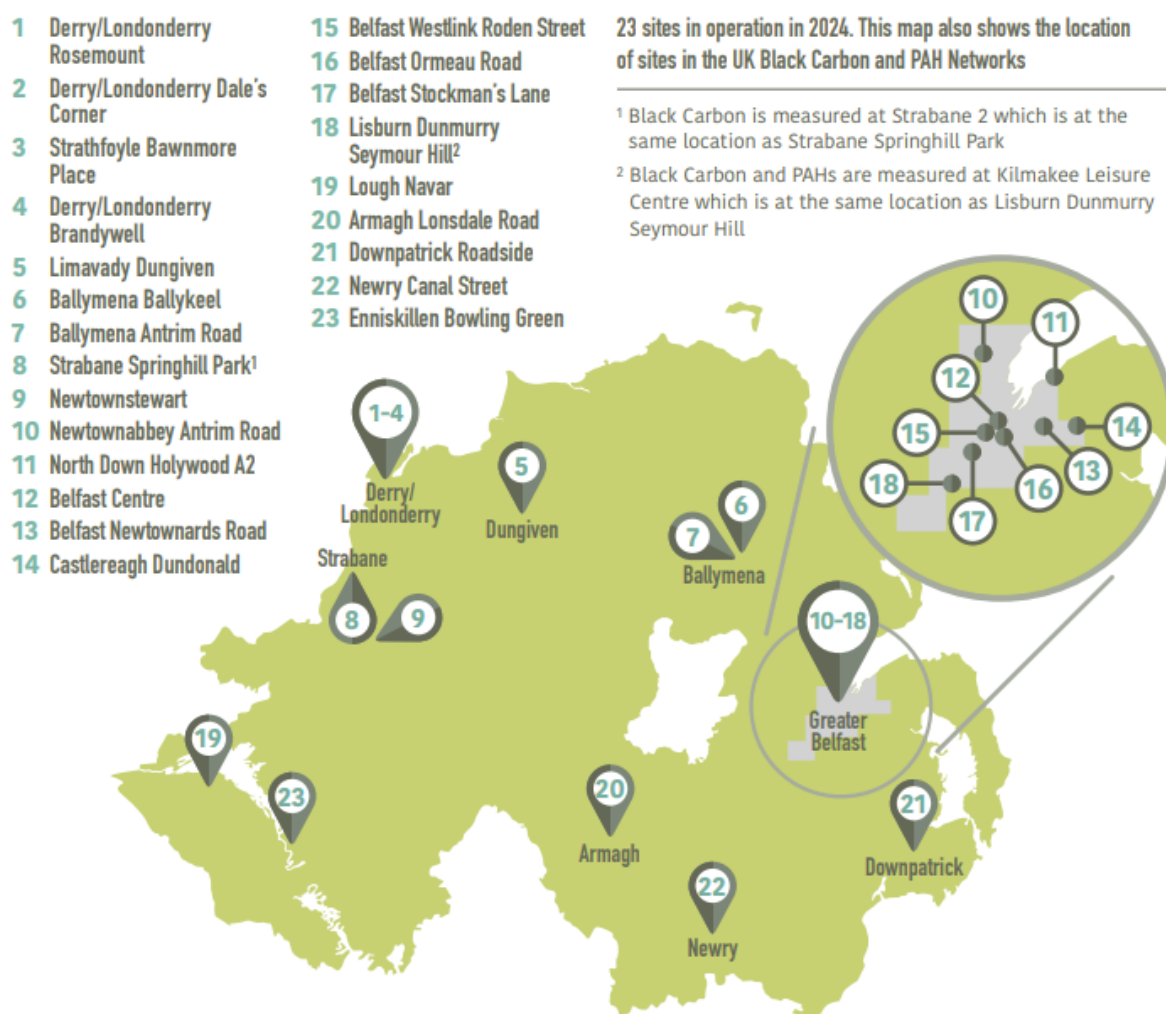
Pollutant	% change in emissions in 2023 compared to 2005 base year	% change in emissions in 2023 compared to 2022
Carbon monoxide	59% decrease	17% decrease
Nitrogen oxides	63% decrease	10% decrease
NMVOCs	16% decrease	2% increase
PM ₁₀	33% decrease	9% decrease
PM _{2.5}	43% decrease	15% decrease
Sulphur dioxide	84% decrease	26% decrease
Lead	35% decrease	5% decrease
Dioxins and Furans	49% decrease	10% decrease
Benzo[a]pyrene	7% decrease	28% decrease
Mercury	53% decrease	10% decrease

8.8.5 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.

²⁹ https://naei.energysecurity.gov.uk/sites/default/files/2025-09/DG_AP_Inventory_2005-2023_Report_FINAL_for_publication.pdf

Figure 4: Map of Northern Ireland 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 3 below.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Table 3. Summary of compliance status for pollutants measured in Northern Ireland in 2024ⁱ

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
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,	Annual Mean	40	Compliant	40	Compliant	10	Non-compliant at all sites except Ballymena Ballykeel and Derry/Londonderry Rosemount.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

	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	24-hour	-	-	-	-	25 (99th 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
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	-	-

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

		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	10	Compliant	10	Compliant	10	Compliant
		8-hour running mean						
		1-hour	-	-	-	-	35	Compliant
Benzene µg m⁻³	Belfast Centre	15-minute	-	-	-	-	100	Compliant
		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, Derry/Londonderry Brandywell, Kilmakee Leisure Centre	Annual Mean target value	1	Compliant	0.25	Non-compliant at all sites except Kilmakee Leisure Centre	-	-

8.8.6 Noise pollution baseline summary

As a result of the Environmental Noise Directive (2002/49/EC), preliminary noise mapping has been produced for Northern Ireland. The Environmental Noise Regulations (Northern Ireland) 2006 require that noise from various transport and

industrial noise sources be mapped every five years. The transport noise sources that are mapped are road traffic, rail traffic and air traffic.

Four 'rounds' ³⁰ of noise maps have been completed with the most recent, published in February 2025. Key observations from the noise mapping technical reports are provided below:

Roads: The total geographical extent of areas mapped above 55 decibels (dB) has increased slightly for Belfast, reflecting increases in nighttime traffic flows and the percentage of HGV vehicles during the nighttime period. On the wider main road networks, the extent of areas mapped above 55dB has increased from the Round 2 mapping by up to 4% for the daytime noise indicators, and between 7-10% for the nighttime noise indicators. However, the report notes that making direct comparisons between Round 2 and Round 3 data is difficult, given the overall changes in the extent of the roads which were mapped during Round 3.

Rail: The extent of areas mapped above 55dB has reduced significantly for the daytime noise indicators between Round 2 and Round 3. These changes are evident across the rail network but are particularly noticeable across the Belfast – Carrickfergus Line. This reflects both changes in train stock (i.e. removal of 450 classes and replacement with the quieter 4000 class trains) across the network, and changes in movement profiles. Within Northern Ireland, major railways have a relatively small geographical footprint in terms of noise contours.

Air: A noise model was developed for Belfast International Airport (BIA) in Round 1 as it generated greater than aircraft 50,000 movements per year. Between Round 1

³⁰ <https://www.daera-ni.gov.uk/publications/round-4-noise-maps-and-noise-mapping-technical-reports>

and Round 2, the assessment identified that noise exposure areas from BIAs operations had reduced. The number of modelled movements and aircraft type between civil and military fixed wing aircraft also reduced over the same period. In general, the fleet mix for 2011 comprised of quieter aircraft and aircraft variants. In Round 3 it was confirmed that there had not been any physical changes to airspace or runway operations at BIA since 2011. Belfast City Airport was also included in the analysis in Round 3. Belfast International Airport presented an increase in aircraft movement of 3% compared to Round 2. There is an overall increase in the extent of noise contours compared to Round 2 which reflects changes in aircraft model splits, movements and aircraft type. However, the number of buildings and population exposed to different noise levels had reduced compared to Round 2.

8.8.7 Air Quality and Noise future baseline summary

Improvements to future air quality are dependent, in part, on whether measures are put in place to improve air quality, and whether these are successfully implemented. Cleaner vehicles, including electric vehicles (EVs), have the potential to lead to improvements in air quality and noise over the longer term. Tighter limits, targets and objectives also have the potential to improve air quality over time (e.g. new PM regulations). Restrictions on solid fuels for domestic heating, behavioural change campaigns and some net zero/climate change policies should also lead to long term improved air quality. Work should be undertaken to improve the uptake of public transport and the increased use of alternative fuel vehicles.

8.9 Baseline Theme 6 - Population and Human Health

Population and human health consider the presence and wellbeing of people, their activities and use of receiving environments. Population size, growth predictions and

distribution within an area can indicate both the potential pressures that people may exert on resources and infrastructure, and the potential to which they may be exposed to pollution, disturbance, or other risks.

The health of a population can be adversely affected through several direct and indirect pathways, including through emissions to water and air, health and safety risks, noise and other disturbances.

8.9.1 Population and Human Health baseline summary

The total population of Northern Ireland in 2023 was approximately 1.92 million people³¹. In 2019-2021, Northern Ireland's life expectancy at birth was 78.4 years for men and 82.2 for women, an increase from 69 and 76 respectively, since the base reporting period of 1980-1982. Northern Ireland currently has an ageing population; 17.2% of people are over 65 years of age.

In the 2021 Northern Ireland census, 78.7% of Northern Ireland residents reported themselves to be of 'good' or 'very good' general health. Over one in five of the resident population (24.3%) reported having a long-term health problem or disability. The primary causes of death for people in Northern Ireland in 2021 were cancer (26.1%, most commonly bronchus or lung) and circulatory disease (21.1%), followed by Covid-19 (10.5%), respiratory (8.8%), other causes (17.5%) and Alzheimer's / dementias (10.7%).

In 2021/22, the proportion of respondents reporting 'very high' levels of happiness (34%) and feeling the things they do in life are worthwhile (34%) continued to fall

³¹ [Population Estimates for Northern Ireland - Northern Ireland Statistics and Research Agency](#)

from pre-pandemic levels. Although there was no significant change in the proportion of respondents reporting 'very high' levels of satisfaction with life (30%) and very low levels of anxiety (41%) compared with last year, the rates remain below pre-pandemic levels.

8.9.2 Population and Human Health future baseline summary

From mid-2020 to mid-2035, the population of Northern Ireland is projected to increase by 41,900 people to 1.937 million. In the longer term (mid-2045), the population of Northern Ireland is projected to increase by 43,000 people, reaching 1.939 million. Whilst the emphasis of the draft CAS is to improve air quality for the benefit of human health, given other factors which strongly influence this, including climate change, it would not be within the scope of this SEA to accurately predict the impact on the health of the population of Northern Ireland.

9. SEA Findings by Themes

This section sets out the likely significant environmental effects that are expected as a result of the draft CAS. The SEA topics identified in schedule 2 of the SEA regulations were grouped together by SEA themes during the SEA Scoping exercise. The assessment takes the form of a broad narrative analysis of how the strategic objectives and actions within the draft CAS may affect each of the themes, with particular focus on themes 1, 2, 5 and 6. Many of these findings have already been touched upon in the baseline and future baseline sections.

The interrelationships between environmental topics, including potential cumulative, secondary and synergistic effects arising from the implementation of the plan are also considered where relevant. In response to the Scoping exercise, it was felt that

more detail was required regarding marine and coastal receptors, therefore Theme 2 has been expanded to include these considerations in the assessment. Annex A provides detail on the likely significant impacts of each action.

9.1 SEA Theme 1- Biodiversity, Flora and Fauna

The draft CAS broadly supports the integrity of internationally, nationally and locally designated sites and helps protect and enhance habitats and species. The likely significant effects on designated sites, habitats and species are explored in more detail in the HRA Appropriate Assessment Report which is published alongside this report and the draft CAS Consultation documents. Annex B of the draft CAS addresses the impact on ecosystems health from Air pollution:

“Poor air quality is a major contributor to the long-term decline of biodiversity in the UK³² 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 wildlife³³. Thus, the focus of ecosystem protection tends to be on nitrogen deposition, which is made up of NO_x from road transport and ammonia mainly 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

³² 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

³³ State of Nature Partnership NI 2023, accessed 01/05/26, <https://stateofnature.org.uk/countries/northern-ireland/>

ammonia concentrations in ambient air, beyond which direct damage to plant tissue occurs.”

The cumulative effects of the actions in the draft CAS should help protect the integrity of the internationally and nationally designated sites within Northern Ireland. None of the actions are likely to result in negative impacts and are intended to contribute to improving the condition of ASSIs within Northern Ireland.

The draft CAS should help relieve pressures from air pollution on locally designated sites for biodiversity and geodiversity in Northern Ireland and enhance the status of National Nature Reserves (NNRs) in Northern Ireland. In doing so, the draft CAS should also help protect and enhance priority habitats, and the habitats of priority species. This will also support the resilience of Northern Ireland’s biodiversity to the potential effects of climate change.

None of the actions in the draft CAS specifically contribute to the creation of coherent and resilient ecological networks. Some may consider this as a missed opportunity, however the Air Quality Expert Group (AQEG) report on the Impacts of Vegetation on Urban Air Pollution³⁴ addresses the research and policy aspects of the interactions between vegetation and air pollutants in urban areas:

“The effects of realistic planting schemes to alleviate air quality problems by enhancing deposition to the surface with vegetation in cities are small. Reductions in concentrations of PM¹⁰ for realistic planting schemes would be expected to be at the

³⁴ https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1807251306_180509_Effects_of_vegetation_on_urban_air_pollution_v12_final.pdf

scale of a few percent. The work to date both from measurement and modelling shows that it is unlikely that large reductions in concentration (>20%) could be achieved using vegetation to enhance deposition over a substantial area. For nitrogen dioxide (NO₂), vegetation is, generally speaking, of little benefit; it is not a very efficient sink. The deposition occurs in daytime, and primarily in the warmer months, when NO₂ is less of a problem. Vegetation is a very poor sink for nitric oxide (NO) and soil is a source of NO, at least partially offsetting any potential benefit of uptake by vegetation. Locally (tens to hundreds of square metres) tree planting may enhance or reduce dispersion; this redistributes pollution but does not remove it. Where vegetation acts as a barrier close to a source, concentrations immediately behind the barrier owing to that source are reduced typically by a factor of about 2, relative to those which would occur without the barrier, whereas on the source side of the barrier concentrations are increased. Tree planting may also exacerbate the build-up of pollution within street canyons by reducing airflow. The use of trees to improve air quality is not without negative impacts as some tree species are important sources of biogenic volatile organic compounds (BVOCs), notably isoprene. BVOCs can enhance the formation of pollutants including PM and ozone. However, BVOC emissions could be avoided by selecting low emitting species. Similarly, the choice of plant species which are known sources of aeroallergens should be avoided....

Recognising that the potential for improving Air Quality using vegetation is modest, an important limitation to mitigation of current Air Quality problems with vegetation is that the most polluted areas of cities are those with very limited space for planting, greatly reducing the potential for mitigation using these methods.”

There may be benefits from hedgerow or tree planting schemes, for example at schools, however this would need to be assessed at a local level.

Good air quality is essential for marine ecosystems. Key activities, such as shipping and fishing, produce emissions including particulate matter and gases. Emissions of sulphur dioxide from the maritime sector in Europe, for example, are projected to surpass total emissions from all land-based sources by 2020, assuming no action is taken.³⁵ Along the coast, vehicles, power stations, industrial processes, fires and construction activities are also key sources of air pollutants and emissions. The primary focus of the draft CAS is human health and with the exception of vehicles, none of these sources are within the scope of this strategy.

The Northern Ireland Marine Plan³⁶ requires public authorities and proposers to consider the impact of proposals on air quality which affects or might affect the marine area. As the impacts of the draft CAS are intended to improve air quality and no negative impacts have been identified, it follows that any potential impacts on the marine environment, whilst generally positive, are secondary and likely to be very modest.

9.2 SEA Theme 2 – Water, Marine & Coastal and Soil & Mineral Resources

The SEA considers issues in relation to the aquatic environment during all aspects / phases in relation to the implementation of the draft CAS. Impacts considered include those relating to water quality, water quantity and hydromorphology, and also considers both direct and indirect potential impacts.

³⁵ [Clean Air for Europe \(CAFE\) Programme | EUR-Lex](#)

³⁶ [Marine Plan for Northern Ireland | Department of Agriculture, Environment and Rural Affairs](#)

River Basin Management Plans are the key tools for implementing the Water Framework Directive and to achieving its objectives. DAERA has published the River Basin Management Plan for the 3rd cycle period which runs from 2021-2027. The plan provides an update on the health of Northern Ireland's water environment (the status of water bodies) and sets out our targets (objectives) and actions (programme of measures) on how we want to improve our water environment in the next six years.

The plan covers the North Western, Neagh Bann and North Eastern river basin districts (RBD) and includes detailed status updates on each RBD. The River Basin Management Plan for the 3rd cycle contains information relating to Plans & Projects (which are key for 3rd cycle RBMP)³⁷. Chapter 4 of the RBMP, "Pressures" does not identify Air Quality as a key pressure acting upon our water environment. The key pressures are excess nutrients and organic pollutants. "These are released into the water environment as a result of land use, mostly related to agricultural and sewage related pressures."

Any potential impacts to the aquatic environment (including transboundary) resulting from the draft CAS should be very slightly positive as the draft CAS helps tackle nitrogen deposition primarily from vehicles. The draft Northern Ireland Nature Recovery Strategy³⁸ also highlights that nutrient pollution, via nutrient run-off from sewage works or farmland, affects marine, freshwater and freshwater-dependent ecosystems. Although air pollution in the form of nitrogen deposition, primarily from the storage and management of animal slurries, affects nutrient-sensitive habitats and species across the terrestrial, freshwater and marine environments, this is not

³⁷ <https://www.daera-ni.gov.uk/publications/third-river-basin-management-plan-northern-ireland>

³⁸ [Draft Nature Recovery Strategy for Northern Ireland to 2032.pdf](#)

within the scope of the draft CAS. This is dealt with through DAERA's draft Ammonia Strategy and Nutrient Action Programmes.

Historic reductions of sulphur emissions have reduced the threat from 'acid rain' however nitrogen deposition may contribute to the occurrence of algal blooms. Whilst none of the actions in the draft CAS specifically support improvements to water quality or minimising the impacts of diffuse run off, through improving air quality there should be secondary contributions to protect and enhance surface water and groundwater resources. This may also help reinforce the ecosystem services which support the regulation of soil quality and availability of high-quality soils resources. There are no specific actions which result in physical alterations to water bodies including those of strategic significance for water supply.

The cumulative effects of the actions in the draft CAS may help manage Northern Ireland's water and soil resources in a sustainable manner although any benefits are likely to be modest compared to other environmental issues affecting these receptors. None of the actions are likely to result in negative impacts to water and soil resources.

9.3 SEA Theme 3 – Historic Environment and Material Assets

DfC Historic Environment Division (HED) operate via a Service Level Agreement with colleagues in DAERA in relation to SEA, whereby, they provide authoritative comment and advice in relation to matters of Cultural Heritage including archaeological and architectural heritage. HED considers that the strategy has potential for significant environmental effects, both positive and negative in respect of cultural heritage.

Many pollutants, beyond ammonia, have demonstrable, often negative effects in respect of cultural heritage, including archaeology and architectural heritage. HED foresee from the objectives and actions, around ambitions on transport and the reduction of solid fuel usage, potential for outworkings in influencing consenting policy on design and infrastructure, which could itself have the potential for negative or positive effects in regard to cultural heritage. These effects would need to be considered at a local level for individual projects.

This assessment acknowledges the intertwined relationship between the natural and historic environment, whereby heritage assets have been influenced by, and shaped the historic landscape character often also providing habitats for biodiversity.

To better align with the historic environment objectives within the Regional Development Strategy (RG11) and strategic planning policy HED also suggested Historic Environment objectives are amended as below:

- Conserve, *protect* and enhance Northern Ireland's cultural heritage resource, including its historic environment *and architectural* and archaeological assets
- Promote understanding of Northern Ireland's *cultural* heritage resource.

HED also suggested assessment questions could be amended or included as below:

- Conserve, *protect* and enhance the significance of *historic* buildings and structures of architectural or historic interest, both designated and non-designated, and their settings?
- Conserve and enhance the special interest, character and appearance of conservation areas and their settings?

- Conserve, protect and enhance archaeological sites and monuments and their settings, *including unknown sites?*
- *Identify and record unknown or previously unidentified heritage assets?*

HED noted that the Landscape objective also refers to ‘*townscapes and villagescapes*,’. Assessment questions should therefore also include consideration of potential cultural heritage effects on historic settlements and local development plan designations e.g. Areas of Townscape Character, or Local Landscape Policy Areas.

It was felt that none of the actions in the draft CAS are likely to significantly impact the issues highlighted by HED and that amending the draft CAS to address all of these would significantly broaden the scope of the draft CAS. The priority for the draft CAS is focussed on improving air quality for the benefit of human health. The issues flagged by HED may be considered in more detail, post-consultation, however it would be more appropriate to consider these for individual projects at a local planning level.

The cumulative effects of the actions in the draft CAS may help to conserve and enhance Northern Ireland’s cultural heritage resource, including its historic environment and archaeological assets by reducing damage caused by air pollution. None of the actions are likely to result in negative impacts to buildings and structures of architectural or historic interest, conservation areas or their settings.

9.4 SEA Theme 4 – Landscape and Seascapes

None of the actions in the draft CAS are specifically intended to protect and enhance the character and quality of Northern Ireland’s landscapes, townscapes, villagescapes, or seascapes, however the cumulative effects of the actions may

result in secondary benefits. This, in turn, may support the management objectives of, and protect the special qualities of, the AONBs in Northern Ireland. In response to the SEA Scoping exercise, DAERA's Water Catchment Unit noted that cross border river basins should be given special attention as ecological functionality crosses jurisdictional boundaries. For example, Northern Ireland/Ireland migratory/mobile species such as salmon can be impacted by water quality / water quantity.

Any potential impacts to the aquatic environment (including transboundary) resulting from the draft CAS should be positive however the nature of those impacts are likely to be secondary and negligible compared to other issues affecting these receptors.

The SEA also considers the potential for any transboundary impact to the aquatic environment in Ireland. The EPA indicated that they would not be making a formal submission in relation to this consultation and signposted some useful resources to consider in finalising the strategy including Ireland's Clean Air Strategy and the Peace Air Project. This is covered in more detail in Section 10, SEA Transboundary Consultation with EU Member States.

9.5 SEA Theme 5 – Air quality, climatic factors and noise

One of the key goals of the draft CAS is to reduce air pollution to deliver improvements in air quality in Northern Ireland. This section explores this in more detail by assessing each objective and the associated actions. This section also considers implications of climatic factors and noise. Some of the actions individually may not be considered likely to have significant environmental effects, however they contribute to the overall positive impacts of the draft CAS. The objectives and actions which may have more direct and significant impacts are addressed below.

Objective 1. Develop our evidence base

The actions which support developing the existing air quality network will provide more scientific air quality data, which will help to strengthen the evidence base and support further policy development. This will be important to inform future decisions and measure success and will not result in any negative environmental impacts.

Objective 2. Improve legislation

Actions which support updating existing legislation to introduce new PM_{2.5} and PM₁₀ limits, targets and objectives, are intended to be introduced, following consultation, which should help deliver WHO interim target 4 for annual average PM₁₀ and PM_{2.5}. Particulate matter in the atmosphere with a diameter of less than or equal to 2.5 microns (PM_{2.5}) arises from both man-made and natural sources. PM_{2.5} is a key pollutant produced from domestic solid fuel burning and road transport. Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of symptoms in people with heart and lung diseases. Because of the small size of these particles, they may cross from the lungs into the bloodstream, where they can have more indirect systemic effects, such as increasing the risk of cardiovascular disease and stroke. In addition, they may carry surface-absorbed carcinogenic compounds into the lungs.

Reviewing air quality definitions and considering further options on stove and solid fuel labelling and stove smoke emission rate in smoke control areas (SCAs) has potential to improve air quality by reducing emissions from domestic burning.

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. Possible topics may include: 'No idling' at schools, solid fuel burning, wet wood burning, Clean Air Primary Schools Campaign, indoor air quality, Clean Air Night/Day.

Objective 4. Work towards zero pollution

The actions supporting this objective aim to prevent or minimise air pollution at source and, where air pollution has occurred, to remediate where possible through existing regulations. 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.

By December 2026, DfI will publish local draft Transport Plans covering Belfast and the Northwest, for consultation, with finalised plans due in 2027. These Plans will outline how the transport network could be integrated and re-balanced, improving air quality and facilitating healthy and sustainable transport choices.

In order to reduce emissions from transport, 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.

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. A Clean Air Forum will be established to create strong working partnerships between DAERA, other NICS Departments, Northern Ireland's District Councils and non-Government Organisations on air pollution matters.

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.

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.

By 2032 DAERA will have worked with the Department for Environment, Food and Rural Affairs (DEFRA) and the other devolved governments, to finalise, agree and implement the UK Air Quality Common Framework following EU Exit.

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.

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.

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.

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/>

Noise

The potential significant effects relating to noise are complex. For example, some renewable energy sources such as wind turbines may result in increased noise, however this would need to be considered in more detail in site specific Environmental Impact Assessments which are beyond the scope of the draft CAS and this report. Likely significant effects of noise on biodiversity are explored in more detail in the HRA for the draft CAS.

Climatic Factors

The relationship between Climatic Factors and Air Quality is complex and multifaceted. A Study published in Nature Sept 2025 “Unravelling the complex impact of climate change on air quality in the world”⁴¹ systematically reviewed over 10,000 publications to provide a large-scale quantitative assessment of the global research landscape on climate change’s impact on air quality. Particulate matter (PM) and ozone (O₃) are the most frequently studied pollutants, with a notable shift in focus from O₃ to PM in recent years. Temperature, as a primary climatic driver, profoundly influences air pollution by altering emissions, chemical reactions, and dispersion.

The influence of air pollution on climate, with certain pollutants acting as short-lived climate forcers (SLCFs), is a critical field of study extensively detailed in the IPCC Sixth Assessment Report (AR6) ⁴²

Air pollutants like methane and black carbon are short-lived climate pollutants that contribute to both climate change and health issues. Climate change can worsen air

⁴¹ [Unraveling the complex impact of climate change on air quality in the world | npj Clean Air](#)

⁴² [Climate Change 2021: The Physical Science Basis | Climate Change 2021: The Physical Science Basis](#)

quality by increasing the frequency and intensity of heatwaves and wildfires, which in turn can elevate levels of air pollutants. Poor air quality can exacerbate the health impacts of climate change, leading to increased respiratory and cardiovascular diseases. Whilst effective climate change policies can improve air quality, they may also have unintended consequences for certain pollutants. Notably diesel engine cars were promoted as helping to mitigate climate change despite having negative impacts on air quality.

A report from the Royal Society ⁴³ on the effects of net-zero policies and climate change on air quality considers how climate change itself is expected to affect air quality in the UK by influencing emissions, atmospheric processing and transport of many pollutants. “Some of these effects are likely to slow or temporarily reverse improvements in air quality. They are also likely to lead to changes in the seasonal and geographical variations in air quality.”

- Moving forward carbon capture and storage (CCS) may involve chemical use with possible emissions, which can be managed through safer materials and treatment technologies.
- While replacing fossil fuels with low carbon and nuclear energy will generally improve air quality, short-term impacts may arise from backup power use and construction, though these can be mitigated.
- In homes, technologies like heat pumps and solar improve air quality, but hydrogen or biogas heating could still produce some emissions unless properly controlled. Indoor air quality depends not only on energy measures but also on behaviour and building materials.

⁴³ [Royal Society: Effects of net-zero policies and climate change on air quality](#)

- Expanding biofuels and urban greening could increase natural emissions that contribute to air pollution, but careful selection of low-emission plant species can reduce this.
- Agricultural changes must avoid shifting pollution from one form to another, such as increasing ammonia emissions. Biomass can lower greenhouse gases but may worsen air pollution, especially when used domestically, so its use should be limited in densely populated areas.

The Northern Ireland Environmental Statistics Report 2026⁴⁴ notes that weather conditions can be a contributing factor to some periods of poor air quality and subsequent elevated levels of air pollutants. This is true of hot, sunny weather which can lead to higher levels of ozone, and winter weather where temperature inversions can lead to increased levels of pollutants, especially particulate matter, at ground level. Projections suggest that Northern Ireland may face hotter, drier summers and warmer as well as wetter winters as a result of climate change.

In 2023, Northern Ireland's greenhouse gas emissions were estimated to be 18.2 MtCO₂e, a reduction of 31.5 per cent since 1990 baseline levels. The largest sectors in terms of emissions in 2023 were agriculture (30.8 per cent), domestic transport (21.5 per cent) and buildings and product uses (13.8 per cent). Climate records suggest that the mean annual temperature has been steadily increasing since the end of the 19th century. The number of days per year where the temperature exceeded 20°C has also been increasing in the same timescale.

⁴⁴ [NI Environmental Statistics Report](#)

9.6 SEA Theme 6 – Healthy and safe communities

Objectives

A main goal of the draft CAS is to improve air quality to support better human health and prevent ill health and premature deaths associated with air pollution. This is explored in detail in Annex B of the draft CAS “Why clean air is important – impacts on human health”.

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 costs⁴⁵. 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 worker⁴⁶. This implies that reducing air pollution could yield considerable economic dividends in addition to the well-established health benefits.

Exposure to higher levels of source-specific PM₁₀, and NO₂ air pollution, during pregnancy and early childhood may impact lung function development, with greatest effects in adolescence, the time of fastest growth.⁴⁷ 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. The draft CAS will help Northern

⁴⁵ 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

⁴⁶ 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)

⁴⁷ [Prenatal and early life exposure to air pollution and lung function development aged 8-24 years: The ALSPAC study - ScienceDirect](#)

Ireland in reaching IT 4 for PM₁₀ and PM_{2.5} and putting Northern Ireland on a path to achieving the ultimate AQGs.

The draft CAS also commits DAERA to expanding the air quality network and working with delivery partners to deliver an awareness and behaviour change campaign, for each year for the duration of this draft strategy. This will lead to increased public awareness of air quality issues and people taking personal actions to improve air quality. This in turn will enable a better-informed society which is capable of making healthier lifestyle decisions, allowing for better public health protection, particularly for the most vulnerable in our community.

The objectives and actions in the draft CAS have been carefully considered to meet the foreseeable needs of the varied communities of Northern Ireland. They should improve the health and wellbeing of Northern Ireland's residents and support the vitality of all communities. This, in turn will maintain or enhance the quality of life of residents and meet the needs of a growing population. As air pollution tends to be worse in built up urban areas, addressing this should enhance the vitality of Northern Ireland's city, town, local and neighbourhood centres, however those living in rural areas are also likely to benefit and there does not appear to be any negative impacts for any communities.

9.7 Interrelationships between SEA Themes & Topics

The ER should include an assessment of the interrelationships between environmental topics, including potential cumulative, secondary and synergistic effects arising from the implementation of the plan. The draft CAS aims to improve air quality across Northern Ireland, increase public awareness of the problem and solutions, and understanding of the serious public health impacts arising from poor

air quality. The draft strategy focuses on prevention, followed by mitigation or abatement of air pollution with a view to improving human health, reducing deaths and improving quality of life.

As outlined above, Theme 6, Healthy and Safe communities is the primary focus of the draft CAS. There are synergistic positive impacts on other themes and topics, for example the draft CAS aligns with and supports Nutrients Action Programme and River Basin Management Plans to support Soil, Water, Marine and Coastal topics, however benefits from the draft CAS are very much secondary and not hugely significant when weighed against other issues affecting these topics. The actions contained within the draft CAS may be considered to have cumulative positive impacts across other topics and no significant cumulative negative impacts are considered likely.

10. SEA Transboundary Consultation with EU Member States

Where a plan or programme is likely to have significant effects on the environment in another Member State of the European Union, the Directive provides for transboundary consultation.

Air pollution is transboundary, and some pollutants can travel long distances in the air. Ozone (O₃) is an example of a 'transboundary' pollutant: once formed it may persist for several days and be transported over long distances. This means that much of the ozone measured in a particular area may have been generated elsewhere, and so it is more difficult to reduce concentrations by local action.

Particulate matter (PM) varies in size and is made up of many different compounds and substances. In terms of the impact on health the very small particles are of particular importance, and in the UK, there are Air Quality Strategy objectives in place for PM₁₀ (particles that are less than 10 micrometres in diameter) and PM_{2.5} (less than 2.5 micrometres). PM can travel long distances, so emissions in one region can impact another downwind. As such, transboundary transport of PM and its precursors from the continent and further afield, can influence measured PM levels.

Long-range transport of pollutants is also a source of particulate matter in Northern Ireland. Easterly wind flows can result in transboundary transport of PM, and its precursors, from continental Europe, elevating levels in Northern Ireland. DAERA works closely with the Irish Department of Climate Energy and the Environment (DCEE) and DEFRA 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.

The SEA scoping report was shared with the appropriate transboundary consultees in Ireland, Scotland, England and Wales for comment.

In response to the Scoping exercise, Natural England commented that air pollution travels large distances, affects both terrestrial and marine habitats and that any changes in policy within any nation can be far-reaching. Natural England further commented that, as the proposed measures set out within the draft CAS are positive in nature and do not contain any objectives that are likely to directly or indirectly lead to adverse effects to protected sites or to damage habitats, species or landscapes, the SEA full report is likely to be positive in nature. It was felt that as any

transboundary impacts resulting from the draft CAS for Northern Ireland, whilst potentially positive, would be considered negligible when compared with other local environmental issues impacting sites in England.

The Scottish Environmental Protection Agency (SEPA) agreed that the five strategic objectives and 19 actions contained within the draft CAS are intended to have significant and positive environmental effects. SEPA were also content with the proposed scope of the SEA as outlined in the report and with the suggested SEA topics/groupings and advised that in this case SEPA planning would not be providing a detailed assessment of the Environmental Report.

The EPA in Ireland also advised that they would not be making a formal submission in relation to this consultation. However, they signposted some useful resources to consider in finalising the strategy including:

Ireland's Clean Air Strategy (currently under review)

- Provides a comprehensive national framework for improving air quality across sectors.
- Focuses on health impacts, integrated policy approaches, and cross-sectoral measures (transport, agriculture, residential heating).
- Strong emphasis on monitoring, public awareness, and aligning with EU and WHO air quality guidelines.

Peace Air Project

- A cross-border initiative specifically focused on air quality in Ireland and Northern Ireland.
- Supports enhanced monitoring, modelling, and data sharing across jurisdictions.

- Promotes coordinated approaches to transboundary air pollution issues and evidence-based policy development.

The SEA in Wales did not respond to the emails regarding the Screening and Scoping documents for the SEA and HRA, and it has been concluded that they have no significant concerns they wish to highlight.

11. Links with other plans, programmes and strategies

There are several influencing and supporting policies which relate directly to the draft CAS. They are DAERA's smoke control and Local Air Quality Management regimes, draft Green Growth Strategy, The Environmental Improvement Plan, the draft Ammonia Strategy for Northern Ireland, the Energy Strategy - Path to Net Zero Energy, the Cancer Strategy for Northern Ireland 2022-2032 and the Climate Change Act (Northern Ireland) 2022 and draft Climate Action Plan. Whilst 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 Plan (CAP), which is required under the Climate Change Act (Northern Ireland) 2022.

DAERA also works closely with Irish counterparts in the DCEE in Ireland to ensure the effects of transboundary air pollution is minimised. The CAS will build on this partnership to ensure that awareness of new and emerging policies is maintained, best practice is shared, knowledge transfer is maintained, and air pollution is reduced.

The SEA must consider the relationships between the draft CAS and other relevant policies, plans, programmes and environmental objectives. In this context, the

proposals will be partially influenced by, and will also have some influence over, objectives presented within other plans/programmes that are produced for Northern Ireland.

Other relevant plans, programmes or strategies that may be relevant include:

11.1 International

Relevant international legislation, programmes, plans and strategies are included in Table 4: Summary of key international plans and programmes relevant to the draft Northern Ireland Clean Air Strategy.

Table 4: Summary of key international plans and programmes relevant to the draft Northern Ireland Clean Air Strategy

Links with international plans and programmes
• Birds Directive [2009/147/EC] • Bonn Convention [L210, 19/07/1982 (1983)] • Convention for the Protection of the Architectural Heritage of Europe [Granada 1985] • Convention of Wetlands of International Importance especially as Waterfowl • Drinking Water Directive [98/83/EC] • EIA Directive [85/337/EEC] [2014/52/EU] • Environmental Liability Directive [2004/35/EC] • Environmental Noise Directive [2002/49/EC] • Environmental Quality Standards Directive [2008/105/EC] • EU Action Plan: Towards Zero Pollution for Air, Water and Soil [COM (2021)400] • EU Biodiversity Strategy for 2030 [COM (2020)380] • EU Floods Directive [2007/60/EC] • European Climate Pact [COM (2020)788] • European Convention on the Protection of the Archaeological Heritage (Valletta 1992) • European Landscape Convention [ETS No. 176] • Groundwater Directive [80/68/EEC] and Daughter Directive [2006/118/EC] • Habitat (1971) [UN Treaty Series No. 14583] • Habitats Directive [92/43/EEC] • Paris Agreement (UNFCCC, 2015)

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Links with international plans and programmes
• SEA Directive [2001/42/EC] • Second European Climate Change Programme [ECCP II] 2005 • Soils Thematic Strategy [COM (2006) 231] • The Ambient Air Quality and Cleaner Air for Europe Directive [2008/50/EC] • UN Kyoto Protocol, The United Nations Framework Convention on Climate Change (UNFCCC, 1997) • World Heritage Convention [WHC-2005/WS/02] • The National Emissions Ceilings Directive 2016/2284/EC (NECD) • The Cleaner Air for Europe Directive 2008/50/EC (CAFÉ Directive) • The Fourth Air Quality Daughter Directive 2004/107/EC (FAQDD) • Regulations that implement international commitments under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (CLRTAP) • The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) • The 2002 Protocol Pollutant Release and Transfer Registers (Kiev Protocol) • The 1998 UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) • Directive 2010/75/EU on Industrial emissions standards and best available techniques

11.2 National

Relevant national programmes, plans and strategies are included in **Error! Reference source not found.5**.

Table 5: Summary of key national plans and programmes relevant to the draft Northern Ireland Clean Air Strategy

Links with national plans and programmes
• A Strategic Planning Policy Statement for Northern Ireland (2015) • Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006 • Accessible Transport Strategy 2025 • Air Quality (Ozone) Regulations (Northern Ireland) (2003)

Links with national plans and programmes

- Air Quality Standards Regulations (Northern Ireland) 2010
- Air Quality Regulations (Northern Ireland) 2003
- Archaeology 2030: A Strategic Approach for Northern Ireland
- Biodiversity Strategy for Northern Ireland to 2020
- Building A Bicycle Strategy for Northern Ireland (2015)
- Building an Active Travel Future for Northern Ireland (2013)
- Children Young People's Strategy 2019-2029
- Circular Economy Programme 2021-2027 (EPA)
- Climate Action Plan 2025 (DCEE)
- Climate Change Act (Northern Ireland) 2022
- Climate Change Act 2008
- Climate Change Risk Assessment (CCRA) for Northern Ireland
- Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended)
- Control of Pollution (Oil Storage) Regulations (NI) 2010
- Disability Discrimination (Northern Ireland) Order 2006
- Disability Discrimination Act 1995
- Draft Nature Recovery Strategy for Northern Ireland to 2032 Draft Nature Recovery Strategy - Extended Consultation Period | Department of Agriculture, Environment and Rural Affairs
- Emerging issues from the draft Northern Ireland Energy Strategy 2050
- Emerging issues from the draft Rural Policy Framework for Northern Ireland
- Energy Act 2008 and amendments 2011
- Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation
- Environment Act 1995 Part IV Local Air Quality Management
- Environmental Noise Regulations (Northern Ireland) 2006
- Environmentally Sensitive Areas Designation Order (Northern Ireland) 2005
- Exercise Explore Enjoy: A Strategic Plan for Greenways (2016)
- Historic Monuments and Archaeological Objects (NI) Order 1995
- Local Development Plans of adjacent council areas
- Marine Act (Northern Ireland) 2013
- Marine and Coastal Access Act 2009
- Northern Ireland (Miscellaneous Provisions) Act 2006
- Northern Ireland Climate Change Adaption Programme 2019

Links with national plans and programmes

- Northern Ireland Energy Strategy – Path to Net Zero Energy
- Northern Ireland Intelligent Transport Systems (ITS) Strategy 2025
- PEACE-Air Project
- Northern Ireland peatland Strategy to 2040 Northern Ireland Peatland Strategy to 2040 | Department of Agriculture, Environment and Rural Affairs
- Northern Ireland peatland Strategy Delivery plan NI Peatland Strategy Delivery Plan April 2026 - December 2027. FINAL. 20-4-2026_0.PDF
- Planning for the Future of Transport - Time for Change (2021)
- The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017
- Planning Policy Statements (PPS – in particular PPS2). It should be noted that the PPS's will be superseded by Local Development Plans when they are adopted.
- Plastic Packaging Tax Regulations 2022
- River Basin Management Plans
- Rural Needs Act (Northern Ireland) 2016
- Shaping Our Future - Regional Development Strategy for Northern Ireland 2035
- The Environment (Northern Ireland) Order 2002
- The Environment Act 2021
- The Marine Strategy Regulations 2010
- The Planning Act (Northern Ireland) 2011
- The Strategic Planning Policy Statement (SPPS)2 for Northern Ireland
- The State of Nature Northern Ireland 2023 TP26055-SoN-N_Ireland-summary-report-v4-1.pdf
- The Water (Northern Ireland) Order 1999
- The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017 and amendments
- The Water Supply (Water Quality) Regulations (Northern Ireland) 2017
- The Wildlife (Amendment) Act 2000
- The Wildlife (NI) Order 1985 and amendments

Links with national plans and programmes

- Wildlife and Natural Environment Act (NI) 2011
- The Windsor Framework
- Towards an Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026
- UK Marine Policy Statement
- UK Marine Strategy
- Water Action Plan 2024 (DHLGH)
- Water and Sewerage Services (Northern Ireland) Order 2006
- Whole of Government Circular Economy Strategy
- Wildlife and Natural Environment Act (Northern Ireland) 2011

This Environmental Report relates to the elements of the draft CAS which are the responsibility of DAERA.

The planning system in Northern Ireland was reformed and restructured in 2015 from a unitary system where all planning powers rested with, the then, Department of the Environment (DOE) now Department for Infrastructure (DfI), to a new two-tier model of delivery whereby councils have primary responsibility for the implementation of the key planning functions, such as: local plan-making; development management (excluding regionally significant applications); and planning enforcement.

DfI retained responsibility for regional planning policy, the determination of regionally significant and called-in applications, and planning legislation. It also provides oversight, guidance for councils, governance and performance management functions.

12. Indicators

Monitoring regimes have been identified to ensure both the efficacy of the actions in the draft CAS and identify any unforeseen impacts to the environment that may arise from its implementation.

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:

- **PM_{2.5} to 10µg/m³ as an annual average, in line with WHO Interim Target 4 (from 25µg/m³ at present); and**
- **PM₁₀ to 20µg/m³ as an annual average, in line with WHO Interim Target 4 (from 40µg/m³)**

The draft strategy has a focus on particulate matter since it is the pollutant of greatest concernⁱⁱ, shown to have the greatest impacts on human health. The updated 2021 World Health Organisation (WHO) Global Air Quality Guidelines (AQGs)ⁱⁱⁱ 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; and**

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.**

13. Enforcement

New PM regulations will require stricter annual average limits/targets/objectives for PM_{2.5} and PM₁₀ as an action in the draft CAS. There is no specific new enforcement action associated with this, however competent authorities listed in existing legislation will play their role to ensure these new standards are met. The new regulations will also require district councils to ensure that there is ongoing compliance with statutory air quality objectives which will need to be achieved in each calendar year. Any non-compliances will require the councils to introduce air quality management areas and development of action plans in order to bring about compliance for the area effected.

14. Consideration of alternatives and mitigation

Alternatives

The ER must include an assessment of reasonable alternatives which demonstrate that the preparation of the plan has been informed by best environmental practice and that a range of realistic options has been considered.

The final CAS is intended to supersede the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007. The 2007 UK wide strategy, which remains in place for Northern Ireland until the publication of the final CAS, provides general protection for air quality within Northern Ireland. A more focused approach will now be possible with the introduction of Northern Ireland's first bespoke strategy in due course.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

In November 2020, DAERA launched a Discussion Document⁴⁸ in advance of developing the draft CAS. 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 Responses⁴⁹.

Developing a draft CAS for Northern Ireland is a legislative requirement under Part III Air Quality of the Environment (Northern Ireland) Order 2002⁵⁰:-

Air quality strategy

10.—(1) The Department shall prepare and publish a statement (in this Part referred to as “the strategy”) containing policies with respect to the assessment or management of the quality of air.

As such, not publishing a draft CAS was not an option, however through the development of the draft CAS, careful consideration was given to which objectives and actions should be included and through several stages of revision and clearances some initial proposals for objectives and actions were screened out. Furthermore, alternatives have been discussed and assessed through ongoing

⁴⁸ 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>

⁴⁹ 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/sites/default/files/consultations/daera/Public%20synopsis%20of%20responses%20to%20the%20Clean%20Air%20Strategy%20Discussion%20Document%20-%202023%20June%202022.PDF>

⁵⁰ <https://www.legislation.gov.uk/nisi/2002/3153/part/III/made>

stakeholder engagement. In most cases these are addressed by other policies and strategies or are not within the scope of the vires for the draft CAS.

Examples of some actions previously considered in the draft CAS:

- Call for evidence on Low Emission Zones (LEZs) – DfI
- Reducing Motor Vehicle Kilometres – DfI
- Improved EV charging – DfI
- Restrictions on sale of solid fuels & wet wood- DfI
- Restrictions on the import of high sulphur coal with possible exemptions for certain critical and key industry – DfE
- Ammonia Strategy – DAERA
- Additional taxation or increase in charges for those involved in the incineration of waste as part of ongoing policy and charging scheme reviews – DAERA
- Work with DEFRA and the other devolved administrations to develop new UK Best Available Techniques (BAT) and BAT Conclusions (BATC) which can be used as a basis for setting Emission Limit Values (ELV) in environmental permits for a series of prioritised industry sectors – DAERA
- Work with DEFRA and other devolved administrations to develop new guidance and management practise to address threshold exceedances in the level of POPs in soft furnishings – DAERA

Mitigation

The 2005 Act requires that ‘the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme’ are outlined within the Environmental Report.

The assessment has identified a range of potential environmental effects and has concluded that the proposals in the draft strategy would not result in any potential significant negative environmental effects. NIEA's Natural Environment Division agreed with the conclusions within the draft CAS HRA that further HRA's will be undertaken at project specific level. "Provided a robust assessment based on contemporary information is undertaken at that point, any environmental impacts should be avoided or mitigated." As such, no specific mitigation measures are identified in this report.

15. Conclusions

It is the view of the Department that this Environmental Report has assessed the potential strategic environmental impacts of the draft CAS and found that there are no obvious negative environmental impacts.

Input and comment from the Statutory Consultees have been taken into consideration at the Scoping Stage and comments on this SEA Environmental Report are very welcome as part of the overall public consultation on the draft CAS.

Policies and proposals for the draft CAS are intended to directly impact Air and Environmental Quality and are intended to have significant, positive environmental effects. This Environmental Report has identified, as far as possible the extent of these positive effects and did not identify any significant potential risks or environmental disbenefits.

The Environmental Report has been updated with the most recent available data and relevant recently published papers on this subject matter have also been taken into consideration, prior to going out to consultation.

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Annex A Draft CAS Actions and Strategic Environmental Impacts

Strategic Objective 1 – Develop our evidence base

Actions	How we will do this	Positive Impacts	Negative Impacts	
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	None identified	
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. By December 2027 DAERA will analyse the findings and prioritise recommendations.	Comprehensive evidence base and a better understanding of data. We have a high-quality monitoring network. As well as: - Increased geographical coverage of air quality monitoring - Increased number of pollutants monitored	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

		- 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	None identified	
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 31st May 2029, DAERA will consider the report's recommendations regarding ultrafine particulate	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 community, including the very young and the very old	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

	monitoring in Northern Ireland and determine the need for monitoring.	- Reduced air pollution from all known sources		
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	None identified	

Strategic Objective 2 - Improve legislation

Actions	How we will do this	Positive Impacts	Negative Impacts	
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.	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

	• 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} The intention is this will be set out in new secondary legislation following consultation which will amend the Air Quality Standards Regulations (Northern Ireland) 2010; and Air Quality Regulations (Northern Ireland) 2003.	• 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 • 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	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

		Greater public understanding of air pollution which is as easily understood as possible		
2.3 DAERA will work with the UK Government to analyse the consultation responses to the 2026 UK wide 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.	- Improved legislation; a better understanding of data; 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	None identified	

Strategic Objective 3 - Raise awareness and bring about Behavioural Change

Actions	How we will do this	Positive Impacts	Negative Impacts	
3.1	DAERA will develop and launch an awareness and behaviour change campaign, for each year for the	Increased public awareness of air quality issues, leading to people	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Launch Air Quality Awareness and Behaviour Change Campaigns	duration of this strategy. DAERA will lead these campaigns, assisted by other NICS Departments.	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 the most vulnerable in our community • A sense of ownership of the problem by individuals, and positive behaviour change		
--	---	---	--	--

Strategic Objective 4 – Work towards zero pollution

Actions	How we will do this	Positive Impacts	Negative Impacts	
4.1 Achieve a fair and just transition to phasing out of coal, manufactured solid fuels and	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	- More robust and representative data - Increased granularity of data - Better public health protection, particularly for the most vulnerable	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

unseasoned wood for home heating	government departments to ensure support is in place to deliver a Just Transition to cleaner, decarbonised heating that will positively impact air quality.	- Improved awareness of the adverse health impacts of using solid fuels.		
4.2 Produce Local Draft Transport Plans	By December 2026, DfI will publish local draft Transport Plans covering Belfast and the Northwest, for consultation. 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		
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	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

		- 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		
--	--	--	--	--

Strategic Outcome 5 – Deliver Change through Partners

Actions	How we will do this	Positive Impacts	Negative Impacts	
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	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

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	None identified
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	• 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	None identified

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

	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.	• Strong partnership working, and improved legislation. • Better East/West policy alignment • Coordinated approach to East/West transboundary air pollution	None identified	
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	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

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	None identified	
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 the LAQM Grant by the end of December 2031, at the end of the current grant duration.	• Fit for purpose Local Air Quality Management (LAQM) that maximises impact; and strong partnership working. • 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	None identified	

Clean Air Strategy for Northern Ireland SEA Environmental Report

August 2026

Endnotes & References

ⁱ DAERA Air Pollution in Northern Ireland 2024, accessed 14/11/25, [air-pollution-in-northern-ireland-2024-issue1-print-optimised-6915a4eaa1e5b061262632.pdf](#)

ⁱⁱ Air Quality Expert Group, New Opportunities for Particulate Measurements, 2023, accessed 14.11.25, https://uk-air.defra.gov.uk/assets/documents/reports/cat05/2411120859_PM_measurement_AQE_G_submitted_19jun2023_update20241111.pdf

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