

Newcastle-Under-Lyme Borough Council



Newcastle-Under-Lyme Borough Council

Air Quality Action Plan

In fulfilment of Part IV of the Environment Act 1995, as amended by the Environment Act 2021

Local Air Quality Management

2026-2030

Newcastle-Under-Lyme Borough Council

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Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the actions we will take to improve air quality in Newcastle-Under-Lyme Borough Council between 2026-2030. The AQAP sets out how the local authority will exercise its functions to secure the achievement of the air quality objectives.

The aim of this AQAP is to demonstrate the achievement of the air quality objectives across the authority and reduce levels of air pollution to as low as feasibly possible.

This action plan is a draft version for consultation. Implementation of the outlined measures will result in the relevant objective being attained by 2026.

The relevant Air Quality Management Area (AQMA) addressed by this action plan are outlined below:

AQMA2 - Town Centre, Newcastle-under-Lyme	Declared in January 2015	Due to exceedances of the annual average Air Quality Objective for NO ₂
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N.B. AQMA's 1,3 and 4, which were declared in 2015, have been revoked, with agreement from DEFRA, as it was evidenced that there is no longer a likely breach of the annual mean nitrogen dioxide national objective level of 40µg/m³ at all the relevant receptors within those Air Quality Management Areas.

This action plan replaces the previous action plan which ran from 2019 to 2024.

Projects delivered through the past action plan include:

- The Kidsgrove Local Transport Package.
- Wayfinding strategy in Newcastle-under-Lyme.
- Cycle route improvements on A34 and A527, and between Newcastle and Stoke.
- Ring-road enhanced signage and subway.
- Car park variable messaging.

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- Bus retrofit scheme for public bus service between Sandy Lane and A500/A53 with an outcome that 23 Buses were retrofitted by the end of 2020.
- Improvements to Wolstanton and Porthill Junctions on A500 completed in 2020 – with an outcome of reduced congestion.
- Review Licensing policy to reduce tail pipe emissions – with an outcome of a number of conditions slowly working towards “*On 31 March 2035, the Council will stop the licensing of hybrid vehicles and all vehicle that do not have Zero tailpipe emissions.*”
- Transition of the council vehicle fleet to zero and low emission vehicle technology with an outcome of a reduction of 700 tonnes of CO₂ emissions per annum with associated reductions in emissions of nitrogen dioxide and particulate matter.
- In May 2026 a change in the Political Administration of the Council has resulted in a review of several existing policies or workstreams, including
 - i. the Council’s Taxi Licensing Policy being re-written which will not require taxi vehicles to have Zero tailpipe emissions by 2035, and
 - ii. ceasing the Council’s procurement of electric vehicles.

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent^{1,2}.

¹ Environmental equity, air quality, socioeconomic status and respiratory health, 2010

² Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

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The UK Health Security Agency (formally Public Health England) has estimated that the costs of air pollution in England to health and social care services could reach between £5.3 and 18.6 billion between 2018 and 2035³. Newcastle-Under-Lyme Borough Council is committed to reducing the exposure of people in our Borough to poor air quality, to improve health.

We have developed actions that can be considered under 7 broad topics:

- Alternatives to private vehicle use
- Environmental permits
- Policy guidance and development control
- Promoting travel alternatives
- Public information
- Transport planning and infrastructure
- Traffic management

Our priorities are:

- Working to reduce and maintain NO₂ concentrations below the annual objective in all areas of the Borough.
- Support practical, voluntary travel choices where realistic and affordable, while prioritising reduced congestion, improved traffic flow and continued compliance with air quality objectives.

In this AQAP, we recognise that there are numerous air quality policy areas that are outside of our influence (such as vehicle emissions standards) but for which we may

³ Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

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have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond Newcastle-Under-Lyme's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Environmental Protection Team of Newcastle-Under-Lyme Borough Council with the support and agreement of the following officers and departments:

- Commercial Delivery and Economic Growth
- Sustainability and Development
- Democratic Services
- Communications
- Public Health, Staffordshire County Council
- Economy, Infrastructure and Skills, Staffordshire County Council
- Children's Wellbeing and Partnerships

This AQAP has been approved by:

Cllr Vanessa Renshaw - Portfolio Holder for Housing & Public Protection

Nesta Barker – Service Director - Regulatory Services

This AQAP will be reviewed by Dr Richard Harling, Director of Health and Care.

The following Air Quality Partners / stakeholders have contributed to the development of the AQAP and will be committed to delivery of actions:

Council members of the group include Elected members, Senior Leadership Team and representatives from the following departments, Planning, Democratic Services, Communications, Licensing, Parks, Buildings & Facilities, Environmental Health.

Members of the group also include representatives from the following departments of external organisations: Public Health, Highways and Connectivity and Sustainability, Children's Well Being and the Built Community.

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This AQAP will be subject to an annual review and appraisal of progress. Progress each year will be reported in the Annual Status Reports (ASRs) produced by Newcastle-Under-Lyme, as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP, please send them to Andrew Hill at:

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1 Introduction

This report outlines the actions that Newcastle-Under-Lyme Borough Council will deliver between 2026-2030 to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to the Borough. The purpose of the report is to set out how the local authority will exercise its functions to achieve the relevant air quality objectives. This action plan is a draft version for consultation.

It has been developed in recognition of the legal requirement on the local authority to achieve and maintain Air Quality Objectives under Part IV of the Environment Act 1995, as amended by the Environment Act 2021, and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every year and progress on measures set out within this Plan will be reported on annually within Newcastle-Under-Lyme Borough Council's air quality [Annual Status Reports](#) (ASR).

2 Summary of Current Air Quality in Newcastle-Under-Lyme Borough Council

2.1 Air Quality Management Areas

The relevant Air Quality Management Area (AQMA) addressed by this AQAP is outlined below.

AQMA 2 – Town Centre, Newcastle-under-Lyme.

N.B. AQMA's 1,3 and 4, which were declared in 2015, have been revoked, with agreement from DEFRA, as it was evidenced that there is no longer a likely breach of the annual mean nitrogen dioxide national objective level of 40µg/m³ at any relevant receptors within those Air Quality Management Areas.

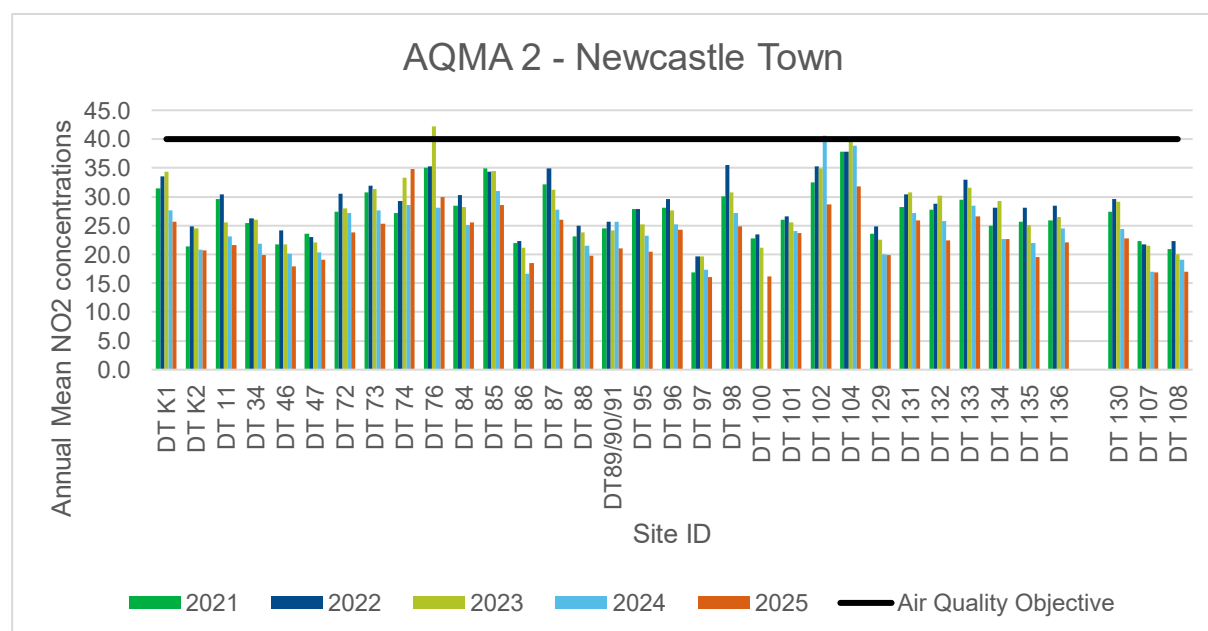
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A map for this area is shown in Section 2.2. It essentially covers the town centre and access to it, including one of the main routes (A53) to the M6 access road (A500). Given this area is the main employment and entertainment centre for the area, it is traffic congestion which has been identified as the main source of NO₂.

The monitoring strategy for NuLBC focuses on NO₂ with passive monitoring undertaken.

The NuLBC ASR 2025 (covering the 2024 monitoring data) showed an overall downward trend in NO₂ levels, with one site (DT102) showing as over the threshold, during the year. That reading was 40.6 µg/m³ and that monitoring tube is on the facade of a habitable dwelling. This trend is shown below and no monitoring site was over the threshold in 2025, with the closest being DT74 at 34.8 - i.e. more than 10% under the threshold

Trends in annual mean NO₂ concentrations 2020 to 2025 – AQMA 2 Newcastle under Lyme (Town Centre and A53 Corridor)



As can be seen, multiple diffusion tubes are located in this area, some of which are co-located.

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Table 2-1 – Relevant Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality within the AQMA influenced by National Highways roads?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective
AQMA 1: Liverpool Road, Kidsgrove REVOKED	Jan-15	NO ₂ Annual Mean	Exceedance of the NO ₂ annual mean objective along Liverpool Road A50, Kidsgrove.	NO	48	30.1	5
AQMA 2: Newcastle-under-Lyme Town Centre	Jan-15	NO ₂ Annual Mean	Exceedance of the NO ₂ annual mean objective. Covers Newcastle under Lyme Town Centre including the ring road A53, King Street, George Street and London Road to the boundary with the City of Stoke on Trent AQMA	YES	58.8	40.6	1
AQMA 3: Maybank-Wolstanton-Porthill REVOKED	Jan-15	NO ₂ Annual Mean	Principal routes between Maybank, Wolstanton and Porthill due to exceedances of the NO ₂ annual mean in Maybank High Street and in the Porthill area	YES	46.5	27.3	6

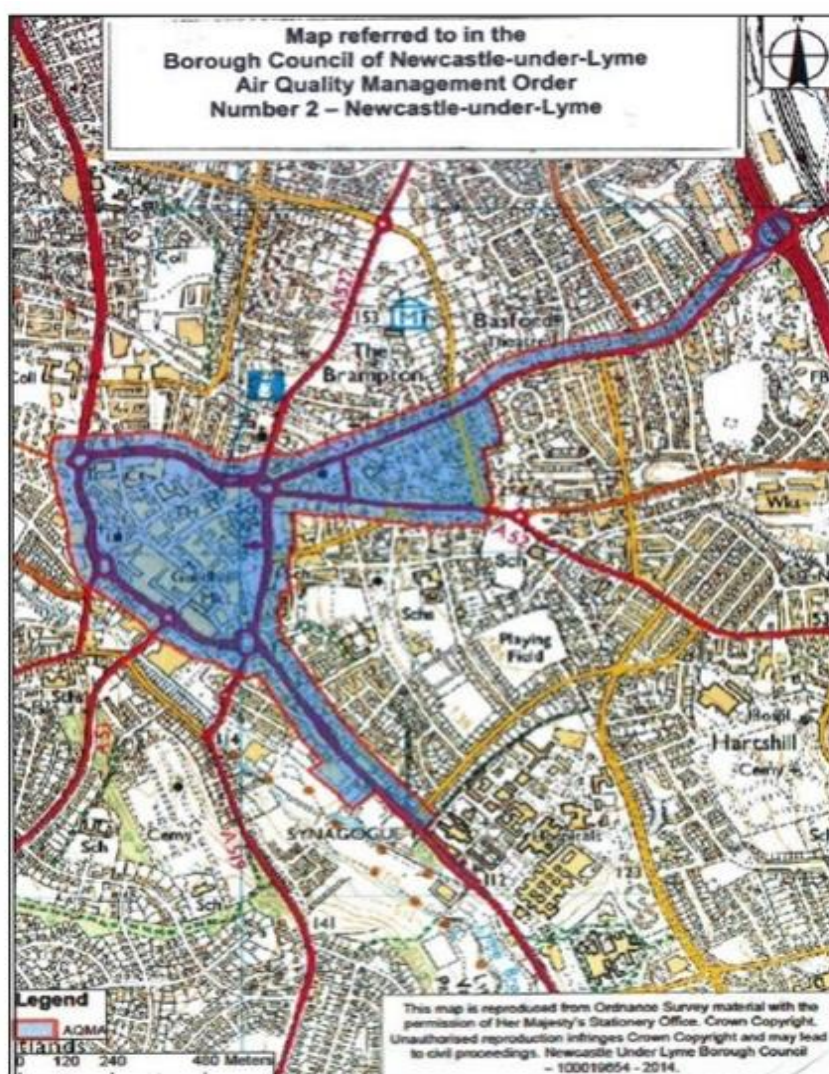
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AQMA 4: Little Madeley REVOKED	Jan-15	NO2 Annual Mean	Two properties at Little Madeley. Exceedance of the NO ₂ annual mean arising from the M6 motorway.	YES	52.1	19.4	8
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2.2 Public Exposure

The estimated number of households within the remaining AQMA are as follows:

AQMA 2 – Town Centre, Newcastle-under-Lyme contains approximately 2100 properties consisting of a mix of residential, retail and commercial contained next to and within the towns inner ring road and radiating out along the A53 King Street, the A52 Brunswick Street & George Street and the A34 London Road.



3 Newcastle-Under-Lyme's Air Quality Priorities

Our priorities are:

- Working to reduce and maintain NO₂ concentrations below the annual objective in all areas of the Borough.
- Support practical, voluntary travel choices where realistic and affordable, while prioritising reduced congestion, improved traffic flow and continued compliance with air quality objectives.

Source apportionment dispersion modelling studies have previously assisted in identifying priorities. The AQMAs were declared for NO₂ primarily due to emissions from road traffic, and bus emissions were identified as contributing a high proportion of the total road-NO_x. See comments in relation to source apportionment in Section 3.3.

3.1 Public Health Context

It has long been established that exposure to air pollutants is detrimental to human and environmental health. In the UK, exposure to air pollution contributes to the equivalent of 40,000 deaths per year⁴. In 2018, the Committee on the Medical Effects of Air Pollutants (COMEAP) provided an updated report on the association between long-term exposure to increased levels of NO₂ and mortality, which estimated that between 28,000 and 36,000 premature deaths in the UK could be linked to air pollution every year⁵. The health care related costs and loss of workplace productivity is estimated to cost the UK economy approximately £20 billion every year.

⁴ <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>

⁵ <https://www.gov.uk/government/publications/nitrogen-dioxide-effects-on-mortality>

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There are several air pollutants that are linked with having a detrimental impact on human health, for which AQMAs are commonly declared in the UK, including nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}) and sulphur dioxide (SO₂). NULBC declared the entire authority as a Smoke Control Area, encompassing an estimated population of approximately 123,000 citizens. Whilst many of these citizens do not live or regularly visit locations where measurements show pollution levels above the air quality objective value, all would benefit from feasible actions that reduce the concentrations of air pollutants across the authority.

The UK Government has responded to the latest research on the effects of PM_{2.5}, which indicates there is no real safe threshold for the pollutant, by outlining aims to reduce concentrations below the World Health Organisation's (WHO) recommended limit values by 2040. At present, whilst NULBC is under no statutory obligation to monitor PM_{2.5} concentrations, the need to and the importance of considering options for addressing emissions of PM_{2.5} at a local level is recognised. Many of the measures implemented within this action plan, designed to target reductions in NO₂, will also have benefits for reducing concentrations of particulate matter.

Poor air quality represents the largest environmental risk to public health. Long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy.

Though air pollution can be harmful to anyone, some people are more affected because of where they live, the concentration of air pollution they are exposed to in their day-to-day lives, or their inherent susceptibility to health problems caused by air pollution. Those who are more susceptible include older people, children, those with pre-existing cardiovascular or respiratory disease, pregnant women, communities in areas of deprivation, higher pollution and low-income communities.

Generally, more air pollution sources and higher pollutant concentrations are found in more socially disadvantaged areas, consequently air pollution tends to cause most harm to people in socially deprived groups.

It is important to consider when implementing measures to improve air quality whether they could put disadvantaged communities at further disadvantage, either

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economically or because generalised air quality improvements can mask pockets of deteriorating air quality, for example through displacement activity.

UK Health Security Agency and the Office for Health Inequalities and Disparities (OHID) have developed an Air Quality and Health Indicator Tool (for England) which draws together relevant air quality and health indicators for stakeholders to access in one place.

Directors of Public Health can consider how well potential means to address disparities has been addressed when signing off ASRs and AQAPs.

The PM_{2.5} indicator in the Public Health Outcomes Framework (PHOF) (England) provides further impetus to join up action between the various local authority departments which impact on the delivery of air quality improvements.

The 2025 Public Health Outcomes Framework 2025 indicator D01 shows that 5% of mortality in the Borough is attributable to particulates, compared to the England average of 5.3%

3.2 Planning and Policy Context

The National Planning Policy Framework (NPPF 25) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

Planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise. The National Planning Policy Framework must be considered in preparing the development plan and is a material consideration in planning decisions. The NPPF contains policies which are supportive of improvements to local air quality. The most prominent/relevant being paragraph 199 which specifically relates to LAQM, as follows

“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, considering the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative

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impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”

This 2024 document has been updated and air quality is specifically mentioned again within National Decision Making Policy P3: Living Conditions and Pollution. Section 2 states

“2. Within this context development proposals should:

a. Mitigate the effect of existing pollution on the site where necessary to secure acceptable conditions for occupiers and users and, where possible, take opportunities to reduce pollution affecting the wider area (such as through traffic and travel management or improved external lighting). In doing so consideration should be given to the cumulative effect of pollution from multiple sources, and to whether the intended occupiers or users may be particularly vulnerable to its effects, such as children and older people;

b. Sustain and contribute to compliance with relevant limit values or national objectives and targets for air pollutants including PM_{2.5}, taking into account the presence of Air Quality Management Areas and NO₂ Clean Air Plans. Where a development proposal falls within or could affect an Air Quality Management Area or Clean Air Plan (Including any Clean Air Zone), it should be consistent with the objectives of these plans and the local air quality action plan.”

3.2.1 Core spatial strategy policies that [Cover \(newcastle-staffs.gov.uk\)](https://newcastle-staffs.gov.uk)

CSP1 – Design Quality

CSP3 – Sustainability and Climate Change

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CSP4 – Natural Assets

CSP5 – Open Spaces / Sports / Recreation

SP1 – Spatial Principles of Targeted Regeneration

SP3 – Spatial Principles of Movement and Access

+ Core spatial strategy strategic aims (SA3, SA17)

+ Area Spatial Policies (ASP4, ASP5, ASP6)

These contain specific relevant improvements including

- “providing recognisable routes and interchanges and landmarks that are well connected to public transport, community facilities, the services of individual communities and neighbourhoods across the whole plan area” – CSP1.
- “Ensuring that all new residential development will be linked to existing and new open spaces and sport and recreation facilities through a series of well-defined safe routes/streets, incorporating pedestrian friendly routes and cycle ways” – CSP5.

Clearly these are aimed at reducing car use and journeys and thus reducing congestion.

3.2.2 Links to other relevant existing policies:

Council Plan 2022-2026 (Outcomes, priorities and approach)

[Council plan 2022 to 2026 – Newcastle-under-Lyme Borough Council \(newcastle-staffs.gov.uk\)](https://www.newcastle-staffs.gov.uk/council-plan-2022-to-2026)

Stoke-on-Trent and Staffordshire Growth Deal. 2015-2021

[Stoke-on-Trent and Staffordshire: Growth Deal - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/policies/stoke-on-trent-and-staffordshire-growth-deal)

Newcastle-under-Lyme and Stoke-on-Trent Core Spatial Strategy. 2006-2026

[Newcastle-under-Lyme and Stoke-on-Trent core spatial strategy – Newcastle-under-Lyme Borough Council \(newcastle-staffs.gov.uk\)](https://www.newcastle-staffs.gov.uk/core-spatial-strategy)

Staffordshire Local Transport Plan 2026 - Strategy Plan

[Local transport plan - Staffordshire County Council](https://www.staffordshire.gov.uk/transport-plan)

Staffordshire Transport Plan – Newcastle-under-Lyme Integrated Transport Strategy 2015-2026

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[STAFFORD DISTRICT TRANSPORT STRATEGY 2011 TO 2026](#)

[\(staffordshire.gov.uk\)](http://staffordshire.gov.uk)

[Staffordshire Bus Service Improvement Plan 2024 to 2050](#)

[Staffordshire bus service improvement plan - Staffordshire County Council](#)

Local Cycling and Walking Infrastructure Plan 2021 – 2031

[Walking and cycling - Staffordshire County Council](#)

Staffordshire Freight Strategy Plan

[Staffordshire freight strategy plan - Staffordshire County Council](#)

Joint Local Plan for N-u-Lyme and Stoke.

[Planning policy – Newcastle-under-Lyme Borough Council \(newcastle-staffs.gov.uk\)](#)

Staffordshire Joint Strategic Needs Assessment

[Joint Strategic Needs Assessment - Staffordshire Observatory](#)

Newcastle-under-Lyme Sustainable Environment Strategy Action Plan 2022/2023

<https://moderngov.newcastle-staffs.gov.uk/documents/s41414/Appendix%201%20-%20Sustainable%20Environment%20Strategy%20-%202023%20Action%20Plan%20update.pdf>

3.3 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within the Newcastle-under-Lyme Borough Council area. To inform the development of this Action Plan, a source apportionment study was carried out for 2024 to identify key contributors to air pollution and emissions at pollution hotspots in Newcastle-under-Lyme.

Source apportionment of NO_x emissions and NO₂ concentrations was carried out using background mapping data published by Defra⁶ and air quality modelling carried out using Ricardo's RapidAir model to estimate contributions from local roads. The study was undertaken in accordance with Defra's Local Air Quality Management Technical Guidance TG (22)⁷ and all other appropriate model guidance.

Meteorological data for 2024 was taken from the Leek Thorncliffe observation station. Road transport activity data were determined using DfT traffic counts. Emissions from road traffic were calculated using the emission factors and vehicle fleet statistics provided in the Emissions Factors Toolkit version 14.1, the latest available version⁸.

The study looked at the contribution of emissions sources to NO₂ concentrations at the locations of maximum monitored annual mean NO₂ concentrations in each AQMA:

- DT94 (AQMA 1);
- DT102 and DT104 (AQMA 2);
- DT24 (AQMA 3).

⁶ <https://uk-air.defra.gov.uk/data/laqm-background-home>

⁷ [LAQM-TG22-May-25-v2.1.pdf](#)

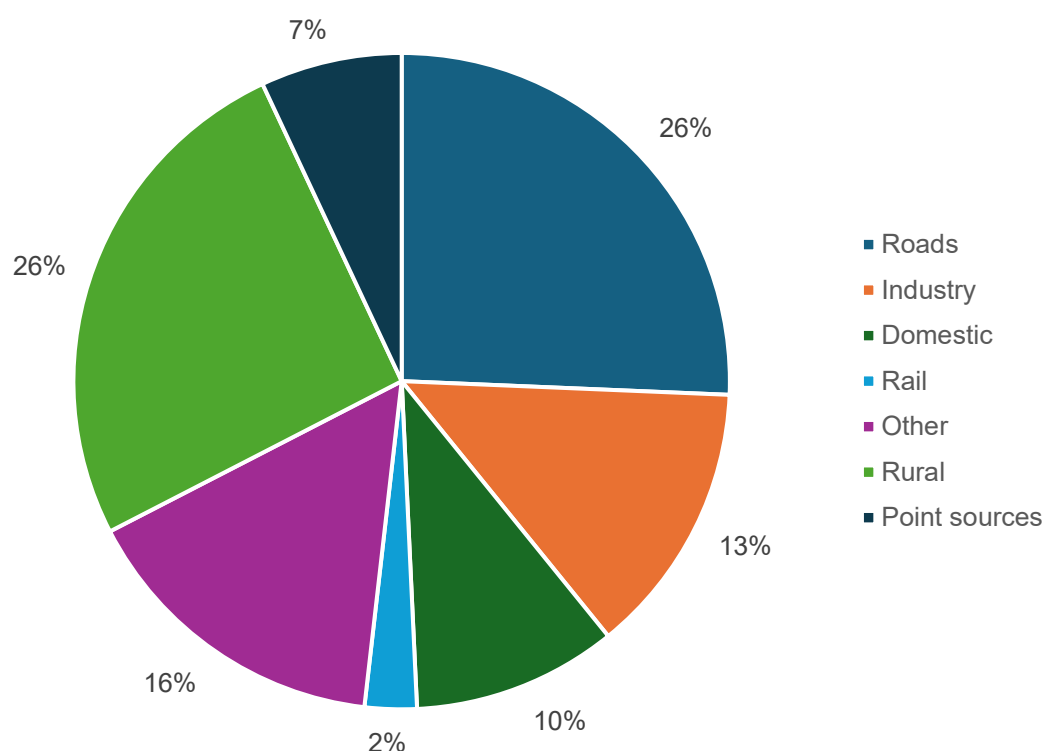
⁸ <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/>

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Figure 3 presents contributions to concentrations away from local sources in AQMA 2 (Newcastle-under-Lyme town centre) from background mapping data. Figure 4 presents a further apportionment of the contribution from local roads to concentrations at NO₂ current and historic hotspots in Newcastle-under-Lyme by vehicle type. Table 3 presents this source apportionment information in tabular format.

The three main contributors to regional NO_x and NO₂ concentrations are emissions from roads, industrial sources, and rural sources. Local contributions to NO₂ concentrations from road transport are dominated by emissions from diesel cars and LGVs.

Figure 3: Source apportionment of regional contribution to annual mean NO₂ concentrations in AQMA 2



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Figure 4: Source apportionment of local roads contribution to annual mean NO₂ concentrations at hotspots in the Newcastle-Under-Lyme Borough Council area by vehicle type, µg/m³

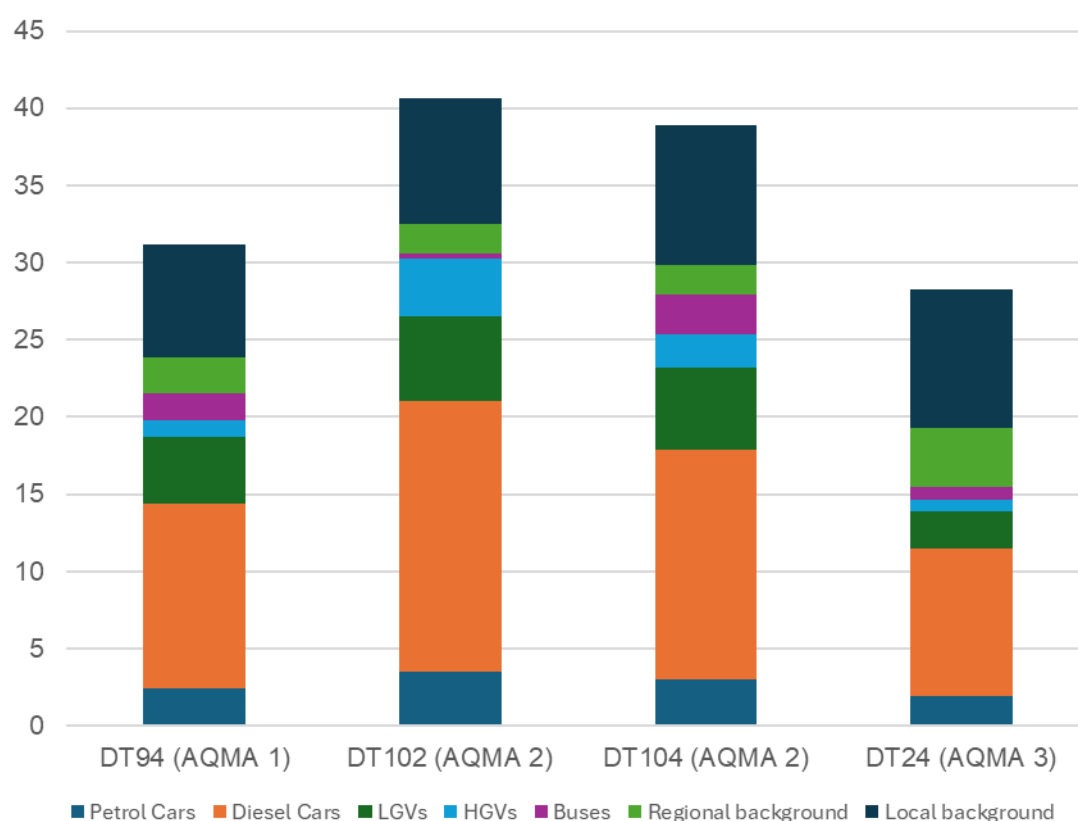


Table 3-1: Source apportionment of local roads contribution to annual mean NO₂ concentrations at current and historic hotspots by vehicle type, µg/m³

Site ID	Location	Petrol Cars	Diesel Cars	LGVs	HGVs	Buses	Regional background	Local background
DT94	AQMA 1	2.4	12.0	4.3	1.1	1.8	2.3	7.3
DT102	AQMA 2	3.5	17.5	5.5	3.8	0.3	1.9	8.1
DT104	AQMA 2	3.0	14.9	5.3	2.2	2.6	1.9	9.0
DT24	AQMA 3	1.9	9.5	2.4	0.7	0.8	3.8	9.0

3.4 Required Reduction in Emissions

A simplified method for calculating the required reduction in emissions is contained in Chapter 7 of [Technical Guidance LAQM.TG22](#).

The calculation firstly requires the worst-case receptor exposure to NO₂ in each of the AQMAs to be determined. This has been determined from the annual monitoring data for 2024 which has been published in the council's Annual Status Report.

The total estimated road contribution of nitrogen oxides (NO_x) is then calculated at each of the worst-case receptors. This estimated road contribution of NO_x to this exposure is determined from the DEFRA [NO_x to NO₂ calculator \(v9.1\)](#).

This calculator is also used to determine the reduction in the road contribution of NO_x which will enable the Air Quality Objective to be met.

The required reduction in emissions in AQMA 2 is summarised in the following table.

Table 3-2: Required reduction in emissions to achieve compliance at location of maximum monitored concentration in each AQMA based on 2024 monitoring data

AQMA	2024 Maximum NO ₂ Exposure	2024 Background NO ₂	Road NO _x Contribution	Road NO _x Reduction Required
AQMA 2: Newcastle-under-Lyme Town Centre (DT102)	40.6	10.0	88.2	2.1

A reduction of 2.1µg/m³ of road traffic nitrogen oxides (NO_x) will achieve compliance in the AQMA2 – Newcastle town centre, based on the 2024 monitoring data. As has been stated, the current indications are that average level has reduced further already and as such the reduction needed is now likely to be minimal.

3.5 Key Priorities

- Priority 1: Working to reduce and maintain NO₂ concentrations below the annual objective in all areas of the Borough.
- Priority 2: Support practical, voluntary travel choices where realistic and affordable, while prioritising reduced congestion, improved traffic flow and continued compliance with air quality objectives.
-

4 Development and Implementation of Newcastle-Under-Lyme Borough Council AQAP

4.1 Consultation and Stakeholder Engagement

In developing/updating this AQAP, we have worked with other local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995, as amended by the Environment Act (2021), requires local authorities to consult the bodies listed in Table 4.1.

In addition, we have undertaken the following stakeholder engagement:

- Website
- Articles in local newspaper

The response to our consultation stakeholder engagement is given in Appendix A: Response to Consultation.

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Table 4-1 – Consultation Undertaken

Consultee	Consultation Undertaken
The Secretary of State	
The Environment Agency	Y
National Highways	Y
All neighbouring local authorities	Y
Any National Park authority as appropriate	n/a
The County Councils (if a District Council)	Y
Other public authorities as appropriate, such as Public Health officials	Y

4.2 Steering Group

In the first steering group meeting on 05 June 2024, Cllr Hutchinson was elected Chair. Further meetings were undertaken of the full group on 19 June 2024 and 10 July 2024 to progress and approve the draft plan. Between these meetings smaller subgroups met to develop the Action Plan Table.

Council members of the group include Elected members, Senior Leadership Team and representatives from the following departments, Planning, Democratic Services, Communications, Licensing, Parks, Buildings & Facilities, Environmental Health.

Members of the group also include representatives from the following departments of external organisations: Public Health, Highways and Connectivity and Sustainability, Children's Well Being and the Built Community.

Following the receipt of comments from DEFRA in relation to a first draft report in 2025, a second draft report was produced again attracting comments from DEFRA.

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This third version was produced for wider stakeholder consultation in accordance with para 5.6 of Local Air Quality Management Policy Guidance (PG22).

It should be noted in May 2026, that there was a change in administration at the Council and some of the previous administrations projects, policies and priorities have been or are in the process of changing. This report has been updated to reflect the current administrations priorities.

It should be noted that this plan does not propose, authorise, justify or provide policy support for any Clean Air Zone, ULEZ-style charging scheme, road-user charging, workplace parking levy or punitive restrictions on ordinary motorists.

5 AQAP Measures

Table 5.1 shows the Newcastle-Under-Lyme Borough Council AQAP measures. It contains:

- A list of the actions that form part of the plan.
- The departments/organisations responsible for delivering this action.
- Estimated cost of implementing each action.
- Expected benefit in terms of pollutant emission and/or concentration reduction.
- The timescale for implementation; and
- How progress will be monitored.

NB: Please see future Annual Status Reports (ASRs) for regular annual updates on implementation of these measures.

Table 5-1 – Air Quality Action Plan Measures

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments/Potential Barriers to Implementation
1	Local Air Quality Annual Status Report (ASR) Including air quality monitoring and statutory reporting	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2026	Ongoing	NuLBC (EH)	NuLBC	No	Funded	£0	Implementation	Nil direct	Annual submission by 30 June	Annual approval	
2	Revocation of AQMAs when NO ₂ levels decrease below AQ objectives	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2028	2028	NuLBC, SCC	NuLBC	No	Funded	£0	Planning	Nil direct	Revocation of AQMAs	Full approval for revocation of 3 AQMAs. With one AQMA being active but showing reducing NO ₂ levels. Current trends indicate that the Council's 2028 ASR will detail that the AQ objective may be met in 2027 and the revocation process can commence at this time, subject to DEFRA approval and monitoring data.	
3	Prepare Joint Strategic Needs Assessment for Air Quality	Policy Guidance and Development Control	Other policy	2025	2026	SCC, NuLBC, DEFRA	SCC	No	Partially Funded	< £10k	Planning	Nil direct	Publication of JSNA	Published 2025	
4	Prepare Air Quality Supplementary Planning Document	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2026	2028	NuLBC (Planning and EH)	NuLBC	No	Funded	£0	Planning	Reduced NO ₂ , PM and CO ₂ emissions per developed m ²	Publication of Planning SPD	Planning Phase	
5	Tree Planting Strategy	Policy Guidance and Development Control	Other Policy	2025	2027	NuLBC	NuLBC	No	Not Funded	< £10k	Planning	tonnes of CO ₂ sequestered	Number of trees planted and managed.	Planted 24,070 in the first six phases of the urban tree planting strategy over 37 sites	This workstream will need to align with the Natural Environment & Sequestration Delivery Plan. Future phases would need further approval.

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6	Grassland Management Strategy	Policy Guidance and Development Control	Other Policy	2025	2027	NuLBC	NuLBC	No	Not Funded	< £10k	Planning	tonnes of CO ₂ sequestered	Total area of grassland habitat	Planning Phase	This strategy will need to align with the Natural Environment & Sequestration Delivery Plan
7	Planning applications with air quality mitigations included	Policy Guidance and Development Control	Other Policy	2025	Ongoing	NuLBC	NuLBC	NO	Funded	£0	Planning	Reduced NO ₂ , PM and CO ₂ emissions per developed m ²	Number of applications with mitigations	374 planning applications reviewed in 2025	Included as part of Local Validation List https://www.newcastle-staffs.gov.uk/planning-applications/information-requirements-validation-planning-applications
8	School – anti-idling campaigns	Traffic Management	Anti-idling enforcement	2023	Ongoing	Staffordshire County Council	SCC	YES	Funded	<10k	Completed	Reduced vehicle NO _x emissions	Number of events	Implementation	DEFRA Air Aware funding now ended
9	UTC SCOOT in areas of Newcastle Town Centre AQMA and Kidsgrove AQMA. Live labs monitoring work linked to congestion in Newcastle	Traffic Management	Urban Traffic Control Systems, Congestion management, traffic reduction	2022	2026	Staffordshire County Council	SCC	YES	Funded	n/a	Completed	Reduced vehicle NO _x emissions; reduction of up to 2.3% in annual mean NO ₂ concentration.	Reduced Newcastle town centre NO ₂	Complete	The Live Labs project has concluded
10	Staffordshire Bus Service Improvement Plan (BSIP)	Transport Planning and Infrastructure	Bus route improvements	2023	2040	Staffordshire County Council	SCC	NO	Funded	> £10 million	Implementation	Reduction of up to 1.6% in annual mean NO ₂ concentrations at hotspots (with measure 11)	Annual number of individual bus journeys (County target)	New 95 route from Audley to Biddulph introduced.	As a result of BSIP & BSIP+ funding consideration is being given to bus route improvements where feasible.

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11	Staffordshire's Local Cycling and Walking Infrastructure Plan (LCWIP)	Transport Planning and Infrastructure	Cycle network	2022	2026	Staffordshire County Council	SCC	NO	Funded	£1 million - £10 million	Implementation	Reduction of up to 1.6% in annual mean NO ₂ concentrations at hotspots (with measure 10)	Vehicle / cycle counts along the routes	Connection 2 due for completion 2026	
12	Newcastle under Lyme Town Deal - Sustainable Public Transport Solutions	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2022	2026	Newcastle Town Deal Board	MHCLG	NO	Funded	> £10 million	Implementation	Reduction of up to 1.6% in annual mean NO ₂ concentrations at hotspots (with measures 13 & 14)	Vehicle counts along the routes		
13	Newcastle under Lyme Town Deal - Town Centre Permeability	Promoting Travel Alternatives	Promotion of cycling	2022	2026	Newcastle Town Deal Board	MHCLG	NO	Funded	> £10 million	Implementation	Reduction of up to 1.6% in annual mean NO ₂ concentrations at hotspots (with measures 12 & 14)	Vehicle counts along the routes	Gallowstree roundabout works completed	
14	Newcastle under Lyme Town Deal - EV infrastructure	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2026	Newcastle Town Deal Board	MHCLG	NO	Funded	> £10 million	Implementation	Reduction of up to 1.6% in annual mean NO ₂ concentrations at hotspots (with measures 12 & 13)	Install 40 EV charge bays		Completed
15	Kidsgrove Town Deal - Canal enhancements	Promoting Travel Alternatives	Promote use of rail and inland waterways	2022	2026	Kidsgrove Town Deal Board	MHCLG	NO	Funded	£1 million - £10 million	Implementation	Reduction of up to 0.4% in annual mean NO ₂ concentrations at hotspots in Kidsgrove	Vehicle counts along the routes		

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												(with measure 16)			
16	Kidsgrove Town Deal - Kidsgrove Station	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2022	2026	Kidsgrove Town Deal Board	MHCLG	NO	Funded	£1 million - £10 million	Implementati on	Reduction of up to 0.4% in annual mean NO ₂ concentrations at hotspots in Kidsgrove (with measure 15)	Vehicle counts along the routes		
17	Get INTO walking and cycling in Newcastle - active travel	Promoting Travel Alternatives	Promotion of cycling	2024	2030	SCC, Bikeright	Active Travel England	NO	Funded	£50k - £100k	Implementati on	Reduced traffic volumes	Number of participants	5.98 billion vehicle miles were travelled on roads in Staffordshire in 2023	https://roadtraffic.dft.gov.uk/local-authorities/117
18	Bikeability national standard cycle training	Promoting Travel Alternatives	Promotion of cycling	2024	2030	SCCs Active School Travel Team	Active Travel England	NO	Funded	£50k - £100k	Implementati on	Reduced traffic volumes	Number of participants	5.98 billion vehicle miles were travelled on roads in Staffordshire in 2023	https://roadtraffic.dft.gov.uk/local-authorities/117
19	Travelling INTO School - sustainable school transport	Promoting Travel Alternatives	Workplace Travel Planning	2024	2030	SCCs Active Travel Team	Active Travel England	NO	Funded	£50k - £100k	Implementati on	Reduced traffic volumes	Number of participants	7 schools with a Travel Plan in 2024	
20	Modeshift STARS - Travel plans in education, business and community settings	Promoting Travel Alternatives	Workplace Travel Planning	2024	2030	SCCs Active Travel Team	Active Travel England	NO	Funded	£50k - £100k	Implementati on	Reduced traffic volumes	Number of participants		
21	School curriculum air quality awareness	Public Information	Via other mechanisms	2023	Ongoing	SCC	SCC	NO	Funded	< £10k	Implementati on	Nil direct	Number of participants		
22	Council employee car and lift sharing schemes	Alternatives to private vehicle use	Car & lift sharing schemes	2023	Ongoing	NuLBC	NuLBC	NO	Funded	< £10k	Implementati on	Reduced traffic volumes	Number of participants		

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23	Adoption of SCC EV Strategy	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2023	2040	SCC	SCC	NO	Partially Funded	£1 million - £10 million	Planning	Reduced CO ₂ and NO _x from vehicles	Number of EV charge points	49.5 EV chargers per 100,000 population in NuLBC	https://maps.dft.gov.uk/ev-charging-map/index.html
24	SCC Local Transport Planning	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2024	2034	SCC	SCC	NO	Not Funded	> £10 million	Planning	Reduced traffic volumes	TBD based on KPIs in the LTP		
25	Environmental Permitting	Environmental Permits	Other	2026	Ongoing	NuLBC	NuLBC	NO	Funded	< £10k	Implementation	Reduced NO _x and PM emissions from industrial sources	% of compliant businesses	39 active environmental permits in 2025	
26	Transition to Hydrotreated Vegetable Oil (HVO) fuel, as a clean alternative to diesel in councils HGV fleet	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2023	2030	NuLBC	NuLBC	NO	Funded		Completed	Reduced tCO ₂ e		Complete – with ability to store and use HVO, its use is dependent upon market prices.	
27	Reducing dust control in construction	Other	Other	2023	Ongoing	NuLBC	NuLBC	NO	Funded	< £10k	Implementation	Reduced NO _x and PM from construction sources	Number of planning application consultations by EH	374 planning applications reviewed in 2025	

5.1 Timescales of the AQAP Measures

The timescale of the AQAP measures varies as many measures are already in progress; completed but extended in scope; or yet to be commenced.

The success of these measures will be determined by reviewing performance against the relevant KPIs each year as part of the Newcastle-under-Lyme Annual Status Report. The timeline for implementation of measures will also be revised as necessary if any barriers are encountered/anticipated that may result in delay.

5.2 Air Quality Partners

The Air Quality Partners responsible for implementing these measures include:

- Newcastle-under-Lyme Borough Council including responsible departments within the Council
- Newcastle Town Deal Board, and
- Kidsgrove Town Deal Board.

5.3 Maintaining Safe Air Quality

NuLBC will continue to monitor air quality across the Borough and especially in the areas previously identified as AQMAs.

With 3 AQMAs already revoked, it is also anticipated that the final existing one will be revoked within the lifetime of this AQAP when suitable evidence is available to provide confidence that exceedances will not occur in the future. Current trends indicate that the Council's 2028 ASR will detail that the AQ objective may be met in 2027, for the third time and the revocation process can commence at this time, subject to DEFRA approval and monitoring data.

Following revocation of the final AQMA, NuLBC will develop an Air Quality Strategy (AQS) in order to safeguard compliance and deliver continued improvements in air quality and public health. There is currently no template for an AQS, and NULBC's

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will outline any ongoing, funded air quality work. Discretionary AQ measures will not be automatically brought forward and the strategy will be subject to separate member approval.

6 Quantification of Measures

6.1 Model scenarios

In addition to the impact of the measures in this Air Quality Action Plan, emissions from road transport in future years will also be affected by other factors including population growth and improvements in vehicle emissions technology. As a result, all locations are expected to reach compliance with the Air Quality Objective for annual mean NO₂ concentrations by 2026.

Defra published Supplementary Guidance on Determining the Impact of Air Quality Improvement Measures⁹ in September 2024, which sets out how impacts can be quantified using concentration-based or emissions-based assessments.

To quantify the additional reductions that will be achieved through the Action Plan in order to safeguard and bring forward compliance, dispersion modelling was carried out using Ricardo's RapidAir model. The model was used to predict expected impacts of selected measures on hotspot locations within Newcastle-under-Lyme. Details of the model setup are provided in Section 3.3. Modelling was carried out for 2026, the year of natural compliance.

Table 9 provides a summary of the methodology used in the scenario modelling.

Table 9 – Assessment methods for scenario modelling

Measure ID	Description	Evaluation method and rationale
9	UTC SCOOT in areas of Newcastle Town Centre AQMA and Kidsgrove AQMA	- Improvements in free-flowing traffic speeds in Newcastle Town Centre AQMA and Kidsgrove AQMA - This project is ongoing, so many improvements from this scheme are already seen in baseline concentrations. - Further impacts modelled as a 5% increase in traffic speeds near junctions in these AQMAs.

⁹ <https://laqm.defra.gov.uk/air-quality/aqap-guidance/supplementary-guidance-determining-the-impact-of-air-quality-improvement-measures/>

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Measure ID	Description	Evaluation method and rationale
10, 11	Staffordshire Bus Service Improvement Plan (BSIP); Staffordshire's Local Cycling and Walking Infrastructure Plan (LCWIP)	- These are borough-wide measures 2% reduction in private car journeys from modal shift to active travel for short journeys - A further 1% reduction in private car journeys along key bus routes
12, 13, 14	Newcastle-under-Lyme Town Deal measures: Sustainable Public Transport Solutions, Town Centre Permeability, EV infrastructure	- These are borough-wide measures which focus on transport in Newcastle-under-Lyme town centre (AQMA 2). - These measures are designed to support a modal shift from private petrol or diesel cars to electric vehicles or public transport - Impacts modelled assuming these combined measures give rise to a modal shift of 2% from private cars to electric vehicles or public transport in AQMA 2 (Newcastle-under-Lyme town centre).
15, 16	Kidsgrove Town Deal: Canal enhancements and Kidsgrove station	- Encourage modal shift from private vehicles in AQMA 3. - Impacts modelled assuming these combined measures give rise to a modal shift of 1% from private cars to or public transport in AQMA 3 (Kidsgrove).
23	Adoption of SCC EV Strategy	- Borough-wide measure encouraging modal shift from diesel and petrol private cars to EVs - Impacts modelled assuming a 4% modal shift to EVs

6.2 Estimated impact of measures

Table 10 presents the expected further reduction in NO₂ concentrations resulting from measures in the AQAP.

Measures	Predicted further % reduction in NO ₂ concentrations in 2026			
	DT94 (AQMA 1)	DT102 (AQMA 2)	DT104 (AQMA 2)	DT24 (AQMA 3)
9	2.1%	2.3%	2.2%	-
10, 11	1.4%	1.6%	1.4%	1.2%
12, 13, 14	-	1.0%	0.9%	-

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15, 16	-	-	-	0.4%
23	1.8%	2.1%	1.8%	1.6%

Measure 9 has the largest impact on concentrations at pollution hotspots compared to the other measures in the action plan. However, this improvement is primarily limited to the vicinity of junctions, and are not expected to lead to significant improvements in air quality across the wider area. Other measures, including measure 23, aim to reduce overall journeys by private car and therefore reduce emissions and improve air quality across the borough.

6.3 Year of Objective Compliance

The expected year of natural compliance (i.e. the year that compliance with the target level would be achieved without including the measures in the Air Quality Action Plan) was assessed through emissions projections and dispersion modelling at DT102, where monitored annual mean NO₂ concentrations exceeded the Air Quality Objective in 2024.

Traffic flows in future years were estimated using the projections from the Trip End Model Presentation Program (TEMPPro), published by the Department for Transport. Vehicle fleet projections for future years were taken from the Emissions Factors Toolkit (V14.1), published by Defra. Background concentrations for future years were taken from the Defra background maps¹⁰.

The natural year of compliance is presented in Table 11. Compliance is predicted to be achieved within AQMA 2 by 2026. It is expected that the Council's 2028 ASR will detail that the AQ objective may have been met in 2027 and the revocation process can commence at this time, subject to DEFRA approval and monitoring data.

¹⁰ [Background Mapping data for local authorities - 2021 - DEFRA UK Air - GOV.UK](#)

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Table 6-1 – Expected year of natural-attained compliance at locations where NO₂ concentrations exceed the annual mean NO₂ UK Air Quality Objective

Site ID	Location	AQMA	Monitored NO ₂ concentration, 2024, µg/m ³	Year of expected compliance
DT102	Belong Lower Street Newcastle	AQMA 2	40.6	2026

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
Environment Agency	Public Body	
National Highways	Government owned Company	
DEFRA	Ministerial Department	
Stoke-on-Trent	Neighbouring Authority	
Staffordshire Moorlands	Neighbouring Authority	
Stafford	Neighbouring Authority	
Shropshire	Neighbouring Authority	
Cheshire East	Neighbouring Authority	

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Consultee	Category	Response
Staffordshire County Council	Neighbouring Authority	

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
<Select from the categories in the blue instruction box above>	<Insert description of measure>	<Insert text here>

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
SO ₂	Sulphur dioxide

References