

# City of Stoke-on-Trent

## 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

Date: September 2025

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Report Reference Number	
Date	

## **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 Stoke-on-Trent City Council (S-o-T CC) between 2025 and 2030.

This AQAP is designed to complement actions set out in the wider North Staffordshire Local Air Quality Plan (NSLAQP). The NSLAQP has been devised by S-o-T CC, Newcastle-under-Lyme Borough Council (NULBC) and Staffordshire County Council (SCC) to reduce concentrations of Nitrogen Dioxide at three hotspot locations.

The aim of this AQAP is to ensure that the actions detailed in the NSLAQP are complemented with additional softer measures that will ensure 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 and will be adopted from 01/09/2025.

This plan is aimed at addressing air quality issues recognised within the city-wide Air Quality Management Area, declared in 2006 to address exceedances of the objective set for Nitrogen Dioxide.

This action plan replaces the previous action plan which ran from 2015 - 2025. Projects delivered through the past action plan include:

- Reduced congestion in Burslem Town Centre
- Road network improvements in Cobridge
- Road network improvements in Fenton
- Road network improvements in Joiners Square
- Road network improvements in Stoke
- Road network improvements in Basford
- Etruria Valley Major Highway & Transport Scheme
- Walk to School Outreach Living Streets

Air pollution is associated with a number of 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.<sup>1,2</sup>

The UK Health Security Agency 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 2035.<sup>3</sup> Stoke-on-Trent City Council is committed to reducing the exposure of people in the area to poor air quality in order to improve health.

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

- Reducing congestion across the road network
- Reducing emissions from council fleet
- Supporting use of public transport
- Reducing emissions from Private Hire Vehicles
- Reducing emissions from buildings
- Supporting active travel and wellbeing

Our priorities are:

- Implementation of the North Staffordshire Local Air Quality Management Action Plan
- Road network improvements at the Waterloo Road and Cobridge Road junction

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/708 855/Estimation\_of\_costs\_to\_the\_NHS\_and\_social\_care\_due\_to\_the\_health\_impacts\_of\_air\_pollution \_\_\_\_summary\_report.pdf

Stoke-on-Trent City Council Air Quality Action Plan

<sup>&</sup>lt;sup>1</sup> <u>https://pubmed.ncbi.nlm.nih.gov/16234422/</u>

<sup>&</sup>lt;sup>2</sup> <u>https://uk-air.defra.gov.uk/library/reports?report\_id=424</u>

<sup>3</sup> 

- Supporting public transport systems and active travel networks
- Reducing emissions from public and private housing

In this AQAP, we outline how we plan to effectively tackle air quality issues within our control. However, we recognise that there are a large number of air quality policy areas that are outside of our influence (such as vehicle emissions standards) but for which we may have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond Stoke-on-Trent City Council's direct influence.

## **Responsibilities and Commitment**

This AQAP was prepared by the Public Health, Protection & Wellbeing Directorate of Stoke-on-Trent City Council with the support and agreement of the following officers and departments:

Jayne Hawe	Environmental Health Manager and Chief EHO
	Public Health, Protection & Wellbeing
Ann Beeston	Consumer Protection Officer
	Public Health, Protection & Wellbeing
Daniel Johnson	Consumer Protection Officer
	Public Health, Protection & Wellbeing
lan Tamburello	Head of Highways
	Transport Policy and Planning
Edwin Leigh	Programme Manager
	Transport Policy and Planning
Zoe Jones	Programme Manager

This AQAP has been approved by: Stephen Gunther, Director of Public Health, Protection and Wellbeing

Stoke-on-Trent City Council Air Quality Action Plan

This AQAP has been signed off by the council's Director of Public Health.

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

- The Environment Agency
- Staffordshire Moorlands District Council
- Newcastle-under-Lyme Borough Council
- National Highways
- UK Health Security Agency

Although this AQAP spans five years, it will be subject to annual review and appraisal of progress with updates reported to the Corporate Senior Management Team and the Local Health Protection Forum as appropriate. Progress each year will also be reported in the Annual Status Reports (ASRs) produced by Stoke-on-Trent City Council Public Protection Team, as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP, please send them to Jayne Hawe at:

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## 1 Introduction

This report outlines the actions that Stoke-on-Trent City Council (S-o-T CC) will deliver between 2025 to 2030 in order 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 city.

This AQAP is designed to complement actions set out in the wider North Staffordshire Local Air Quality Plan (NSLAQP). The NSLAQP has been devised by S-o-T CC, Newcastle-under-Lyme Borough Council (NULBC) and Staffordshire County Council (SCC) to reduce concentrations of Nitrogen Dioxide at three hotspot locations.

The aim of this AQAP is to ensure that the actions detailed in the NSLAQP are complemented with additional softer measures that will ensure 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 and will be adopted from 01/09/2025.

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 updated every five years at the latest, and progress on measures set out will be reported on annually within S-o-TCC's air quality ASR, as well to the Corporate Senior Management Team and the Local Health Protection Forum as appropriate.

## 2 Summary of Current Air Quality in Stokeon-Trent

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution affects the most vulnerable in society; children, the elderly, and those with existing 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.<sup>45</sup>

The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017.

The Environment Act (1994) has set the requirement for local authorities across the UK to regularly assess the state of air quality within its administration boundary. Following Local Air Quality Management (LAQM) requirements set out by the UK government, S-o-TCC have identified that levels of nitrogen dioxide (NO<sub>2</sub>) pollutant across the city are not compliant with the national air quality objective set by UK government.

As required by the LAQM framework, S-o-TCC have undertaken a number of actions to improve air quality across the city; declaring the entire authority as an Air Quality Management Area (AQMA) in 2014 alongside publishing an Air Quality Action Plan (AQAP) during the same year which set out actions to work towards bringing NO<sub>2</sub> concentrations in line with the national objectives.

₄<u>https://uk-</u>

air.defra.gov.uk/assets/documents/reports/cat09/0701110944\_AQinequalitiesFNL\_AEAT\_0506.pdf <sup>5</sup> https://ncas.ac.uk/deprived-communities-in-england-experience-higher-emissions-of-air-pollutionfrom-all-major-sources/

In October 2018, the UK government published an update to its national plan<sup>6</sup> for the UK to become compliant with international obligations to meet air quality standards. This plan required S-o-TCC and the neighbouring Newcastle-under-Lyme Borough Council (NULBC) to further develop their AQAPs. In recognition of the scale of the issue, the authorities, alongside Staffordshire County Council, formed a partnership to develop a North Staffordshire Local Air Quality Plan (NSLAQP).

The NSLAQP was developed to reduce nitrogen dioxide (NO<sub>2</sub>) concentrations at locations along Etruria Road, Victoria Road and Bucknall New Road, where the EU objectives were exceeded.

The actions from the NSLAQP are predicted to bring concentrations of NO<sub>2</sub> at the three locations into compliance with the air quality targets. The NSLAQP has been submitted to national government for review.

## 2.1 Air Quality Management Areas

The relevant Air Quality Management Areas (AQMAs) addressed by this AQAP are outlined below.

<sup>6</sup> 

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/915 958/air-quality-no2-plan-supplement.pdf

#### 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
Stoke-on- Trent Air Quality Management Area 2011	Declared 04/04/2006,	NO₂ Annual Mean	An area encompassing the whole of the city.	Yes	52	53.5	Not compliant
Stoke-on- Trent Air Quality Management Area 2011	Amended 09/05/2011.	NO <sub>2</sub> 1 Hour Mean	An area encompassing the whole of the city.	Yes	52	53.5	Not compliant

## 2.2 Public Exposure

The Office for National Statistics (ONS) states that approximately 258,400 citizens live within Stoke-on-Trent and its declared AQMA.

# 3 Stoke-on-Trent City Council's Air Quality Priorities

## **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 year.<sup>7</sup> 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 NO<sub>2</sub> and mortality, which estimated that between 28,000 and 36,000 premature deaths in the UK could be linked to air pollution every year.<sup>8</sup> The health care related costs and loss of workplace productivity is estimated to cost the UK economy approximately £20 billion every year.

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 (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and sulphur dioxide (SO<sub>2</sub>). S-o-T CC declared the entire authority as an AQMA, encompassing an estimated population of approximately 258,400 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.

<sup>&</sup>lt;sup>7</sup> https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution

<sup>&</sup>lt;sup>8</sup> https://www.gov.uk/government/publications/nitrogen-dioxide-effects-on-mortality

The UK Government has responded to the latest research on the effects of PM<sub>2.5</sub>, 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 S-o-T CC is under no statutory obligation to monitor PM<sub>2.5</sub> concentrations, the need to and the importance of considering options for addressing emissions of PM<sub>2.5</sub> at a local level is recognised. Many of the measures implemented within this action plan, designed to target reductions in NO<sub>2</sub>, will also have co-benefits for reducing concentrations of particulate matter.

## **3.2 Planning and Policy Context**

The following policies and plans have been identified as relevant to the development of the updated Air Quality Action Plan.

# 3.2.1 STOKE-ON-TRENT: JOINT HEALTH AND WELLBEING STRATEGY 2025 – 2028

Building on the improvements on key measures within the Joint Health and Wellbeing Strategy 2021-25<sup>9</sup>, the draft 2025-2028 strategy concentrates on areas where the City needs to make greater progress and will maintain a focus in priority areas of:

- Reducing health inequalities
- Supporting family life
- Supporting people to live independently
- Supporting physical and mental wellbeing
- Reducing harms from addictions

<sup>&</sup>lt;u>https://www.stoke.gov.uk/download/downloads/id/1803/health\_and\_wellbeing\_strategy\_2021-25.pdf</u>

The strategy aims to foster a whole population and holistic approach, focusing on mental, physical, and social wellbeing, and ensuring the most vulnerable are supported to reduce health inequalities.

Table 3-1 details the aspirations within the strategy where air quality will be positively impacted and/or may have a part to play in achieving success.

#### Table 3-1: Joint Health and Wellbeing Strategy Aspirations

Aspirations
Promote good physical and personal well-being to improve health outcomes and reduce number of inactive adults
Increase physical activity amongst children and young people to improve health and economic outcomes in adulthood
Improve healthy life expectancy of residents
Improved survival of babies and young children to reduce infant mortality rates
Management of long-term conditions in children, such as asthma, to reduce avoidable hospital admissions

#### 3.2.2 STOKE-ON-TRENT CITY COUNCIL: ENERGY STRATEGY 2023 - 2033<sup>10</sup>

S-o-T CC have published an energy strategy which aims to enable the council to be more efficient with its energy consumption and to support the UK's 2050 net-zero ambition. The strategy consists of the following five priorities:

- 1. Reduce energy and fuel consumption to reduce cost and carbon.
- 2. Establish Joint Venture for S-o-T CC energy services.
- 3. Become self-sufficient in low carbon energy generation.
- 4. Co-ordinate and digitalise energy assets and services.

<sup>&</sup>lt;sup>10</sup> <u>https://www.stoke.gov.uk/directory\_record/335151/energy\_strategy\_2023\_-2033</u>

5. Position Stoke-on-Trent for green economic opportunities.

The strategy includes a 10-year action plan which details the following measures which will have an impact on air quality. Table 3-2 details a summary of the actions which will have the biggest impact on NO<sub>2</sub> and PM<sub>2.5</sub> concentrations across the city. It should be noted that this is not a complete list of all the potential benefits to air quality by the strategy.

Action description	Completion year	Benefit to air quality
Install efficiency measures to council buildings prioritised for their consumption levels and/or ease of upgrading.	2025	Efficient use of electricity will reduce the demand on the grid, reducing the need for fossil fuel use and increasing the availability of electricity generated from renewable sources.
Electrify the council's small vehicle fleet.	2028	This will reduce the level of NO <sub>x</sub> emitted from the council's fleet vehicles.
Introduce a subsidised home charging scheme for council employees who use electric vehicles for work-related travel.	2028	This will encourage the use of electric vehicles. Reducing the emission of NOx across Stoke.
Complete the connection to the District Heat Network for all corporate buildings which can feasibly be added to the network.	2033	This will reduce the number of boilers in operation across the council sites. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Undertake preparatory work in relation to connecting social housing to the District Heat Network.	2033	This will reduce the number of boilers in operation from social housing. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Convert all larger vehicles in the corporate transport fleet to ultra-low emission vehicles (ULEV).	2033	This will reduce the level of NO <sub>x</sub> emitted from the council's fleet vehicles.
Enable the energy partner to take on low carbon energy technology installation and operating capabilities and assets.	2028	The strategy aims to partner with an energy expert who can help the authority become more efficient with energy use. Reducing NOx and PM emissions.
Offer commercial electric vehicle charging services in council-owned car parks and other publicly accessible sites.	2028	This will encourage the use of electric vehicles. Reducing the emission of NOx across Stoke.
Offer heat energy to public and private sector customers, including schools and social housing tenants.	2033	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.

#### Table 3-2: Priority actions in S-o-T CC energy strategy

Complete the citywide installation of on street electric vehicle charging infrastructure, making use of existing streetlighting and digital infrastructure.	2033	This will encourage the use of electric vehicles. Reducing the emission of NOx across Stoke.
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## Table 3-3: : Priority actions in S-o-T CC energy strategy (continued)

Action description	Completion year	Benefit to air quality
Install solar PV and CHP systems at appropriate locations across the corporate estate.	2025	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Expand the District Heat Network to enable more council-owned sites to benefit from the supply of low-carbon heat.	2025	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Continue to install solar PV systems on appropriate council-owned/managed sites.	2028	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Continue to expand the District Heat Network to extend connectivity and services to more of the corporate estate.	2028	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Complete the installation of a centrally managed solar PV 'virtual farm' across elements of the corporate estate.	2033	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.
Commence construction of the second phase of the Hanford ERF redevelopment to allow for carbon capture and potential green hydrogen generation.	2033	This will reduce the level of NO <sub>x</sub> and PM emitted across Stoke.
Capitalise on Silicon Stoke digital infrastructure to unlock further advances in 'smart city' energy management solutions.	2033	This will reduce the number of boilers in operation. Reducing the number of emission sources of NO <sub>x</sub> and PM.

#### 3.2.3 STOKE-ON-TRENT CITY COUNCIL PROPOSED TAXI AND PRIVATE HIRE POLICY 2024 – 2027<sup>11</sup>

S-o-T CC have proposed an update to current policy which will further enhance standards relating to the operations of Taxi and Private Hire Car vehicles. The proposal updates vehicle requirements so that:

- All new internal combustion engine vehicles must be Euro VI emission compliant by the 1<sup>st</sup> April 2025.
- No vehicles which are non-compliant with Euro VI emission standards will be renewed after the 31<sup>st</sup> March 2026.
- No new combustion engine vehicles will receive a permit after 31<sup>st</sup> March 2027.
- No combustion engine vehicles will receive a permit after 31<sup>st</sup> March 2030.

#### 3.2.4 STOKE-ON-TRENT CITY COUNCIL: SUPPLIER USER GUIDE (2019)<sup>12</sup>

This guide provides council suppliers with details of five strategic priorities for Stoke which should be considered by suppliers whilst under contract. The following priorities have an overlap with improving air quality:

- Work with residents to make our towns and communities great places to live
  - Promoting environmental sustainability (including limiting energy consumption, reducing wastage and procuring materials from sustainable sources; minimalizing travel distances by either employees or providers).
- A commercial council, well governed and fit for purpose, driving efficiency in everything we do
  - Improving the council's own ability to improve the economic, social and environmental well-being of the city.

<sup>&</sup>quot;https://www.stoke.gov.uk/info/20030/taxis/717/taxi\_policy\_review

<sup>&</sup>lt;sup>12</sup> https://www.stoke.gov.uk/download/downloads/id/1493/social\_value\_guide\_for\_council\_suppliers.pdf

The guide provides three key principles to achieving the aims listed:

- That the type of social value outcomes sought must be relevant and appropriate to the type of activity or goods being purchased.
- That they must be proportionate in all the circumstances, including in the context of the value of the purchase.
- That they must be practical in their application.

#### 3.2.5 TRANSPORT STRATEGY AND DELIVERY PLAN FOR 2022 - 203113

The transport strategy aims to identify a programme of transport improvements over the next ten years which will support economic growth, residents' mobility and both public and environmental health. The strategy details a number of priorities which include:

- Bus network improvements including enhanced services, with quicker journeys and cheaper fares.
- Developing business cases for Very Light Rail (VLR) and Bus Rapid Transport (BRT) in the city.
- Decarbonising transport through the provision of infrastructure to support zero-carbon vehicles, looking at a multi-user depot.
- Developing a connected walking and cycling network, reopening rail stations and developing the case for more frequent local rail services.
- Improving freight transport facilities.
- Highway schemes to tackle pinch points and improve bus service reliability and punctuality.

<sup>13</sup> 

https://www.stoke.gov.uk/info/20008/roads\_parking\_and\_travel/608/transport\_strategy\_and\_delivery\_ plan\_2022-2031

• Provision of multi-modal transport 'hubs' to enable easier transfer between different travel modes.

#### 3.2.6 BUS SERVICE IMPROVEMENT PLAN (2024)<sup>14</sup>

The current bus service improvement plan aims to 'create and maintain affordable access to, and improvement to the public transport system'.

The plan details that progress has been made on 2021 actions which can be summarised as:

- Launch and continued review of the affordable fares scheme
  - This scheme provides cheaper and simpler ticketing options for travel around the city.
- Bus service enhancement plan
  - This plan aims to increase the operational hours and frequencies of bus services across the city, supporting the seven-day economy.
- Transport safety officers' plan
  - This plan aims to increase the number of transport safety officers in the network to help curb anti-social behaviour and improve the experience of the service user.
- Bus accessibility measures
  - This scheme has upgraded the accessibility 100 of the 194 identified bus stops.
- Information initiatives
  - A survey of current bus stops has resulted in a planned installation of 100 electronic displays to provide live service updates across the city.

<sup>&</sup>lt;sup>14</sup> <u>https://www.stoke.gov.uk/busserviceimprovementplan</u>

 Additionally, 400 bus stops will display QR codes that users can scan to access live bus service information.

The plan now aims to build on the progress made, and has committed to:

- Continuation of the affordable fares scheme.
- Evaluating the feasibility of the installation of a new bus route serving the Etruria Valley employment zone (The Newport Bus Link). This evaluation will also consider the opportunities to install active travel options.
- The roll out of Traffic Signal Bus Priority SCOOT 7 infrastructure. The roll out aims to install new traffic signalling equipment at 38 locations across the city. The upgrades will enable traffic signals to prioritise bus services that are in high demand and those which are running behind schedule.
- Effective management of bus lanes and red routes. This plan aims to enforce rules on the use of bus lanes and red routes so that bus services can operate more efficiently.
- Continuation of the bus accessibility measures. S-o-T CC to upgrade a further 100 bus stops by July 2024. S-o-T CC will undertake a further evaluation of the remaining bus stops present within its network with the ambition to obtain funding for further upgrades at priority locations.
- Review of existing CCTV and lighting infrastructure at bus stops.

#### 3.2.7 THE CORPORATE STRATEGY 2024 – 2028, OUR CITY, OUR WELLBEING<sup>15</sup>

The corporate strategy aims to improve community wellbeing through the focus of seven priorities. Table 3-4 details the priorities that are likely to impact air quality across the city:

<sup>&</sup>lt;sup>15</sup> <u>https://www.stoke.gov.uk/ourcityourwellbeing</u>

Table 3-4: Priorities detailed in the corporate strategy (2024 – 2028) relating to	
air quality	

Priority title	Objectives relating to Air Quality	
A healthier city	<ul> <li>Promote and enable a healthier standard of living for citizens of all ages.</li> <li>Create healthy and sustainable places and communities, including a thriving green and blue environment to influence placemaking and community wellbeing.</li> <li>Create opportunities for communities to discover and get involved in</li> </ul>	
A greener city	<ul> <li>improving local green spaces.</li> <li>Reduce the city's carbon emissions in line with the 2050 net zero commitment.</li> <li>Work towards the creation of a circular economy which prioritises environmental sustainability over consumption and waste.</li> <li>Use low-carbon energy innovation to maximise environmental sustainability.</li> <li>Strengthen biodiversity and opportunities to engage with the natural environment.</li> <li>Use investment in low-carbon energy to reduce fuel poverty, as well as greenhouse gas emissions.</li> </ul>	
A cleaner city	<ul> <li>Create and develop healthy and sustainable places and communities.</li> <li>Empower communities to become effective stewards for their areas.</li> <li>Strive to eradicate environmental crime in our city.</li> </ul>	
A fairer city	Encourage more use of cycling for routine journeys.	

## **3.3 Source Apportionment**

A source apportionment study was carried out by Ricardo in 2025, using 2023 as a base year. Source apportionment was carried out using background mapping data

published by Defra<sup>16</sup> and local roads modelling carried out by Ricardo using traffic data from the North Staffordshire Multimodal Model (NSMM).

The study looked at the contribution of sources to total  $NO_2$  at 11 locations where the  $NO_2$  monitoring network has shown an exceedance of the target set for  $NO_2$  as an annual mean concentration between 2019 and 2023. Figure 1 provides a summary of the average source contribution to each monitoring location.

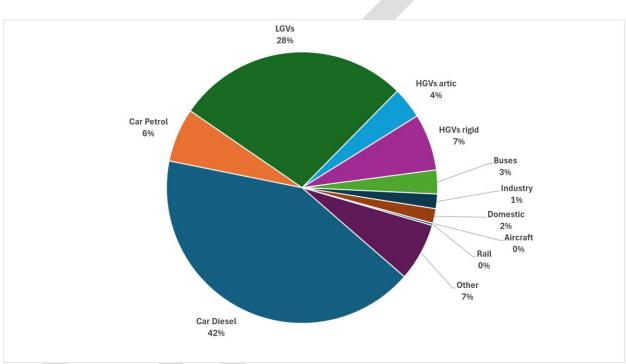


Figure 1: NOx source apportionment average at hotspot locations in Stoke-on-Trent

Figure 1 shows that, as an average across all sites:

- 90% of NO<sub>2</sub> can be attributed to NOx release from road transport vehicles.
  - o 42% is attributed to diesel cars
  - 28% is attributed to Light Goods Vehicles (LGVs)
  - o 7% is attributed to Heavy Goods Vehicles (HGVs), rigid types
  - o 6% is attributed to petrol cars

<sup>&</sup>lt;sup>16</sup> <u>https://uk-air.defra.gov.uk/data/laqm-background-home</u>

- 3% is attributed to Buses and Coaches
- o 4% attributed to Heavy Goods Vehicles (HGVs), artic types
- 2% is attributed to domestic sources (such as boilers used in private homes)
- 1% is attributed to industrial sources.

Based on these observations, it was concluded that this AQAP should seek to reduce the contribution to NO<sub>2</sub> from vehicles using the road network and from private homes.

## **3.4 Required Reduction in Emissions**

The monitoring data collected during 2024 shows only one monitoring location (DT17) which exceeds the 40  $\mu$ g/m<sup>3</sup> annual mean threshold set for NO<sub>2</sub>. The data shows that annual average concentrations are at 53.5  $\mu$ g/m<sup>3</sup> at this site and that NOx concentrations would have to reduce by 42% at this location. The NSLAQP includes actions which are specifically focused on achieving national compliance at this location.

## 3.5 Key Priorities

The following priority themes, derived from the presented evidence, have been incorporated into practical measures. These measures are intended to promote adherence to Air Quality Objectives (AQO) within Air Quality Management Areas (AQMAs). This holistic approach aims to progressively enhance air quality throughout the district.

- Priority 1 Reduce NO<sub>2</sub> concentrations at hotspot locations through the implementation of the NSLAQP plan.
- Priority 2 Reduce NO<sub>2</sub> concentrations along Waterloo Road by improving traffic flow through the Waterloo Road and Cobridge Road junction.
- Priority 3 Reduce NOx emissions from the road transport network through increased uptake of public transport and active travel.
- Priority 4 Reduce emissions from domestic housing by increasing the energy efficiency of domestic housing via the warm-homes grant scheme.

## 4 Development and Implementation of Stoke-on-Trent City Council's AQAP

## 4.1 Consultation and Stakeholder Engagement

In developing 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 a public consultation via a survey accessible through the authority's website.

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

Consultee	Consultation Undertaken
The Secretary of State	Yes
The Environment Agency	Yes
National Highways	Yes
All neighbouring local authorities	Yes
Any National Park authority as appropriate	N/A
The County Councils (if a District Council)	N/A
Other public authorities as appropriate, such as Public Health officials	Yes
Bodies representing local business interests and other organisations as appropriate	Yes

#### Table 4-1: List of consultees

## 4.2 Steering Group

The initial steering group meeting was held on 12th March 2025. A list of participants is shown in Table 4-2.

Name	Role	Organisation				
Jayne Hawe	Environmental Health Manager	Stoke-on-Trent City Council				
Ann Beeston	Consumer Protection Officer	Stoke-on-Trent City Council				
Daniel Johnson	Consumer Protection Officer	Stoke-on-Trent City Council				
James Southgate	Senior air quality consultant	Ricardo				
Mark Attree	Principle air quality consultant	Ricardo				
Padmanabhan Badrinath	Interim Consultant in Public Health Medicine	Stoke-on-Trent City Council				
Cynthia Folarin	Public Health Consultant	Stoke-on-Trent City Council				
Joshua Skellern	Senior Officer (Public Health Insights)	Stoke-on-Trent City Council				
Sebastien Danneels	Programme Manager (Energy and Sustainability)	Stoke-on-Trent City Council				

Alice Bates	Senior Planning Officer	Stoke-on-Trent City Council
Anne-Marie Hindley	Air Quality Link Scientist	UK HSA
Nesta Barker	Director for Regulatory Services	Newcastle-under-Lyme Borough Council
Chris Henderson	Senior Advisor – SES	National Highways
Daniel McCrory	Principal Pollution Officer	Staffordshire Moorlands District Council
Andrew Bean	Air Quality Lead	National Highways
Vicki Yates	Programme Manager (Living without addictions)	Stoke-on-Trent City Council

A second steering group was held on 4<sup>th</sup> April 2025. Table 4-3 details the list of attendees.

#### Table 4-3: Participants of the steering group meeting held on 4<sup>th</sup> April 2025

Name	Role	Organisation
Jayne Hawe	Environmental Health Manager	Stoke-on-Trent City Council
James Southgate	Senior air quality consultant	Ricardo
Mark Attree	Principle air quality consultant	Ricardo
lan Tamburello	Head of Transport Planning	Stoke-on-Trent City Council

Sarah Grattage	Team Manager, Transport Policy and Planning	Stoke-on-Trent City Council
Steve Lovatt	Highways asset and commercial works Team Manager	Stoke-on-Trent City Council
Edwin Leigh	Transport Programme Manager	Stoke-on-Trent City Council

## 5 AQAP Measures

Table 5-1(a): Air Quality Action Plan Priority 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	Implementation of the North Staffordshire Local Air Quality Action Plan	Other	Other	tbc	tbc	Stoke-on-Trent City Council, Newcastle under Lyme Borough Council. Staffordshire County Council	Departme nt for the Environm ent, Food and Rural Affairs.	NO	Funded	tbc	Planning		To achieve compliance with EU AQOs	Full evaluation of the proposed plan has been undertaken and is now awaiting feedback from central government.	Cross authority and central Government involvement may lead to time delay and financial issues.
2	Waterloo Road junction improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	tbc	tbc	Implementati on	A reduction of 1% in NO2 concentrations	Measurements reported by the DT9 monitor	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 Action included in S-o- T CC Bus Service Improvement Plan (2024)	
3	Red routes enforcement	Traffic Manageme nt	Other	2025	2026	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£2.25m	Implementati on		A target of 5% reduction in journey times is expected to be achieved by the end of the current Bus Service Improvement Plan	Action included in S-o- T CC Bus Service Improvement Plan (2024)	
4	Real time bus information	Promoting Travel Alternatives	Personalised Travel Planning	2025	September	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£1.5m + £825k	Implementati on			Action included in S-o- T CC Bus Service Improvement Plan (2024)	
5	Affordable fares initiative	Transport Planning and Infrastructu re	Bus route improvements	2023	March 2026 end of funding	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£15m	Implementati on		Patronage	Action included in S-o- T CC Bus Service Improvement Plan (2024) - Current year of funding has been granted and will run until March 2026.	

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
6	Additional bus service routes	Transport Planning and Infrastructu re	Bus route improvements	2025	March 2026 end of funding	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£5.7m	Implementati on		Patronage	Action included in S-o- T CC Bus Service Improvement Plan (2024)	
7	No taxi / PHV that are non- compliant with Euro VI emission standards will be renewed after the 31st March 2026	Promoting Low Emission Transport	Taxi Licensing conditions	2026		Stoke-on-Trent City Council		NO			Planning		Removal of all Euro 5 vehicles from licensing	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	Slight risk on affordability for drivers without any support or grant.
8	Warm Homes: Local Grants	Other	Other	2026	2030	Stoke-on-Trent City Council	Departme nt for Net Zero	NO	Funded	< £10k	Planning	5% reduction in PM2.5	PM2.5 concentrations attributed to domestic sources	S-o-T CC have approved the first year of funding during the cabinet meeting held on the 25/02/25	
9	Complete the connection to the District Heat Network for all corporate buildings which can feasibly be added to the network (Completed by 2033)	Other	Other	2025	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	tbc	Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	
10	Promotion of attractive cycle routes	Promoting Travel Alternatives	Promotion of cycling	Ongoing	Ongoing	Stoke-on-Trent City Council		NO	Consolida ted Active Travel Fund		Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	Need to gain a robust baseline usage figure

## Table 5-1(b): Air Quality Action Plan Priority Measures (continued)

## Table 5-2(a): Air Quality Action Plan Supplementary 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
11	Longton centre network improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2026	2026	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	BSIP - £900k LUF TCF	Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 BSIP contribution towards upgrading Longton Times Square SCOOT/red route enforcement/bus stops upgrade Consultation planned for mid-June	
12	Newport link Road	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle		2027	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	Funded	£9m BSIP and Bus Grant	Planning			Action included in S-o- T CC Bus Service Improvement Plan (2024)	Timescales for delivery and funding deadlines. Ongoing issues resolving land ownership
13	Leek Road / Station Road	Traffic Manageme nt	occupancy lane Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2023	2025	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
14	Traffic signal refresh programme	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CCC Transport Strategy and Delivery Plan 2022 – 2031	

## Table 5-3(b): Air Quality Action Plan Supplementary Measures (continued)

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
15	Traffic Signal Bus Priority SCOOT 7 infrastructure	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2025	2026 end of funding	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	Funded	£2.75m BSIP	Implementati on		Improved bus journey times through traffic light driven junctions.	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 Action included in S-o- T CC Bus Service Improvement Plan (2024)	
16	Look at feasibility of developing of a city-wide freight strategy	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc		Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Not identified	tbc	Planning	Tbc – reduction in freight miles, including last mile deliveries and emissions	tbc	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031.Not yet progressed. Likely to be superseded by Local Transport Plan content	Funding resources need to be identified. Likely to be an action emerging from Local Transport Plan delivery plan, involving electrification of stabling (freight parking) areas.
17	Development of multi-modal hubs	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc		Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Not identified	£1 million - £10 million	Planning	Tbc – reduction in vehicle miles including last mile deliveries	tbc	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031. Not yet progressed. Likely to be superseded by Local Transport Plan content	Funding resources need to be identified. Likely to be an action emerging from Local Transport Plan delivery plan
18	A50/A500 junction improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	

## Table 5-4(c): Air Quality Action Plan Supplementary Measures (continued)

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
19	Electrify the council's small vehicle fleet (Completed by 2028)	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
20	Introduce a subsidised home charging scheme for council employees who use electric vehicles for work-related travel (Completed by 2028) The Cross Pavement Charging Gully Project could be included into this as the install of the gully, the planning costs and part of the charger cost will be paid for via Gov (LEVI) funding.	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2025	2027	Stoke-on-Trent City Council	LEVI Capital and DfT Local Transport Grant	NO	LEVI & DfT Transfor mation funded	£519,300	Planning	426t CO2e 1.42t (average car) x 300	Number of gullies installed	Action included in draft EV Infrastructure Delivery Strategy 2025-2030.	The Cross Pavement Charging Gully Scheme will be available to Council employees if they live in Stoke-on- Trent. Potential challenges are planning procedures + unexpected groundworks
21	Conversion of bus fleet to electric	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging			SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)		NO	No funding identified		Planning Initial discussion taking place with First Bus. No other operators at this time are involved in this discussion.		% electrification of bus fleet	No funding allocated. See comments	SOTCC are in initial conversions with First Bus regarding their proposals for fleet and depot electrification options. Challenges include funding allocation for feasibility or delivery. Difficulties around identifying a, suitable, depot location for depot for use by, grid capacity. Enabling accessibility to all bus operators. Grid connections/Council fleet and 3rd party charging opportunities

## Table 5-5(d): Air Quality Action Plan Supplementary Measures (continued)

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
22	Low Emissions Vehicles Infrastructure (LEVI)	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging			Stoke-on-Trent City Council	LEVI Pilot (£150k) and LEVI Capital Funding (£2.4 million)	NO	Funded		Planning		No. of chargers installed and utilisation stats	<ul> <li>Action included in draft EV Infrastructure Delivery Strategy 2025-2030.</li> <li>LEVI Pilot contract awarded in July 2024 and now in process of installing 30 charging points (60 charging sockets) for public use, prioritising residential areas with a high reliance for on street parking. All LEVI Pilot funded chargers to be installed by summer 2026.</li> <li>LEVI Capital funding to deliver 400+ charging points (800 + sockets) between 2026-30. Would ensure most residential properties without off street parking would be within few minutes' walk of a public charging point.</li> </ul>	No significant LEVI Pilot delivery challenges identified. LEVI Capital (called 3rd LEVI consortium) Tender is now live (from 18th April) and will close on 26th June. This contract includes 90% of our LEVI Capital funding (£2,400,000). Contract evaluation in July. Contract to be awarded and commence in Sept 2025. LEVI Capital challenges are ensuring a suitable charging point operator is procured to deliver contract.
23	No new Taxis / PHVs with a combustion engine vehicle will receive a permit after 31st March 2027.	Promoting Low Emission Transport	Taxi Licensing conditions	2027		Stoke-on-Trent City Council		NO			Planning		No new internal combustion vehicles to be licensed	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	Risk of affordability and the actual availability of infrastructure to charge.
24	No Taxis/PHV with a combustion engine vehicle will receive a permit after 31st March 2030.	Promoting Low Emission Transport	Taxi Licensing conditions	2030		Stoke-on-Trent City Council		NO			Planning		No renewals for internal combustion vehicles only EV.	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	

## Table 5-6(e): Air Quality Action Plan Supplementary Measures (continued)

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
25	Installation of cycle lockers at key city locations	Promoting Travel Alternatives	Promotion of cycling	2026	2028	Stoke-on-Trent City Council	Future Active Travel Funding	NO	Future Active Travel Funding		Planning		More cycle lockers in key locations	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
26	Adult cycling training programme	Promoting Travel Alternatives	Promotion of cycling	2025	2026	Stoke-on-Trent City Council	Consolida ted Active Travel Fund	NO	In place	£6,000	Planning		Number of places taken up	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
27	Cycle hire scheme	Promoting Travel Alternatives	Promotion of cycling			Stoke-on-Trent City Council		NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
28	Improved access to health and leisure facilities	Promoting Travel Alternatives	Other	2025	Ongoing	Stoke-on-Trent City Council		NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
29	Undertake preparatory work in relation to connecting social housing to the District Heat Network (Completed by 2033)	Other	Other	tbc	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	tbc	Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	
30	Offer heat energy to public and private sector customers, including schools and social housing tenants (Completed by 2033)	Other	Other			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded		Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	

shows S-o-T CC's AQAP measures, with those considered priorities for air quality improvement featured as the top ten.

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.

Where appropriate, future Annual Status Reports (ASRs) will provide updates on implementation of the priority measures, detailed in lines 1-10 of the table.

The supplementary measures, lines 11 - 30, are projects or actions included because they are likely to have an impact on improving air quality and will be kept under watching brief.

Stoke- on-Trent City Council Air Quality Action Plan

### Table 5-1(a): Air Quality Action Plan Priority 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	Implementation of the North Staffordshire Local Air Quality Action Plan	Other	Other	tbc	tbc	Stoke-on-Trent City Council, Newcastle under Lyme Borough Council. Staffordshire County Council	Departme nt for the Environm ent, Food and Rural Affairs.	NO	Funded	tbc	Planning		To achieve compliance with EU AQOs	Full evaluation of the proposed plan has been undertaken and is now awaiting feedback from central government.	Cross authority and central Government involvement may lead to time delay and financial issues.
2	Waterloo Road junction improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	tbc	tbc	Implementati on	A reduction of 1% in NO <sub>2</sub> concentrations	Measurements reported by the DT9 monitor	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 Action included in S-o- T CC Bus Service Improvement Plan (2024)	
3	Red routes enforcement	Traffic Manageme nt	Other	2025	2026	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£2.25m	Implementati on		A target of 5% reduction in journey times is expected to be achieved by the end of the current Bus Service Improvement Plan	Action included in S-o- T CC Bus Service Improvement Plan (2024)	
4	Real time bus information	Promoting Travel Alternatives	Personalised Travel Planning	2025	September	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£1.5m + £825k	Implementati on			Action included in S-o- T CC Bus Service Improvement Plan (2024)	
5	Affordable fares initiative	Transport Planning and Infrastructu re	Bus route improvements	2023	March 2026 end of funding	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£15m	Implementati on		Patronage	Action included in S-o- T CC Bus Service Improvement Plan (2024) - Current year of funding has been granted and will run until March 2026.	

# Table 5-1(b): Air Quality Action Plan Priority Measures (continued)

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
6	Additional bus service routes	Transport Planning and Infrastructu re	Bus route improvements	2025	March 2026 end of funding	SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)	Stoke on Trent City Council BSIP	NO	Funded	£5.7m	Implementati on		Patronage	Action included in S-o- T CC Bus Service Improvement Plan (2024)	
7	No taxi / PHV that are non- compliant with Euro VI emission standards will be renewed after the 31st March 2026	Promoting Low Emission Transport	Taxi Licensing conditions	2026		Stoke-on-Trent City Council		NO			Planning		Removal of all Euro 5 vehicles from licensing	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	Slight risk on affordability for drivers without any support or grant.
8	Warm Homes: Local Grants	Other	Other	2026	2030	Stoke-on-Trent City Council	Departme nt for Net Zero	NO	Funded	< £10k	Planning	5% reduction in PM2.5	PM <sub>2.5</sub> concentrations attributed to domestic sources	S-o-T CC have approved the first year of funding during the cabinet meeting held on the 25/02/25	
9	Complete the connection to the District Heat Network for all corporate buildings which can feasibly be added to the network (Completed by 2033)	Other	Other	2025	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	tbc	Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	
10	Promotion of attractive cycle routes	Promoting Travel Alternatives	Promotion of cycling	Ongoing	Ongoing	Stoke-on-Trent City Council		NO	Consolida ted Active Travel Fund		Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	Need to gain a robust baseline usage figure

# Table 5-2(a): Air Quality Action Plan Supplementary 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
11	Longton centre network improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2026	2026	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	BSIP - £900k LUF TCF	Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 BSIP contribution towards upgrading Longton Times Square SCOOT/red route enforcement/bus stops upgrade Consultation planned for mid-June	
12	Newport link Road	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle		2027	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	Funded	£9m BSIP and Bus Grant	Planning			Action included in S-o- T CC Bus Service Improvement Plan (2024)	Timescales for delivery and funding deadlines. Ongoing issues resolving land ownership
13	Leek Road / Station Road	Traffic Manageme nt	occupancy lane Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2023	2025	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
14	Traffic signal refresh programme	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CCC Transport Strategy and Delivery Plan 2022 – 2031	

# Table 5-3(b): Air Quality Action Plan Supplementary Measures (continued)

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
15	Traffic Signal Bus Priority SCOOT 7 infrastructure	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2025	2026 end of funding	Stoke-on-Trent City Council	Stoke-on- Trent City Council BSIP	NO	Funded	£2.75m BSIP	Implementati on		Improved bus journey times through traffic light driven junctions.	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031 Action included in S-o- T CC Bus Service Improvement Plan (2024)	
16	Look at feasibility of developing of a city-wide freight strategy	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc		Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Not identified	tbc	Planning	Tbc – reduction in freight miles, including last mile deliveries and emissions	tbc	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031.Not yet progressed. Likely to be superseded by Local Transport Plan content	Funding resources need to be identified. Likely to be an action emerging from Local Transport Plan delivery plan, involving electrification of stabling (freight parking) areas.
17	Development of multi-modal hubs	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	tbc		Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Not identified	£1 million - £10 million	Planning	Tbc – reduction in vehicle miles including last mile deliveries	tbc	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 – 2031. Not yet progressed. Likely to be superseded by Local Transport Plan content	Funding resources need to be identified. Likely to be an action emerging from Local Transport Plan delivery plan
18	A50/A500 junction improvements	Traffic Manageme nt	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	

# Table 5-4(c): Air Quality Action Plan Supplementary Measures (continued)

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
19	Electrify the council's small vehicle fleet (Completed by 2028)	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
20	Introduce a subsidised home charging scheme for council employees who use electric vehicles for work-related travel (Completed by 2028) The Cross Pavement Charging Gully Project could be included into this as the install of the gully, the planning costs and part of the charger cost will be paid for via Gov (LEVI) funding.	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2025	2027	Stoke-on-Trent City Council	LEVI Capital and DfT Local Transport Grant	NO	LEVI & DfT Transfor mation funded	£519,300	Planning	426t CO2e 1.42t (average car) x 300	Number of gullies installed	Action included in draft EV Infrastructure Delivery Strategy 2025-2030.	The Cross Pavement Charging Gully Scheme will be available to Council employees if they live in Stoke-on- Trent. Potential challenges are planning procedures + unexpected groundworks
21	Conversion of bus fleet to electric	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging			SOT CC / Local Bus Operators (First, D&G buses, Stantons of Stoke, Blue Buses, Arriva Midlands)		NO	No funding identified		Planning Initial discussion taking place with First Bus. No other operators at this time are involved in this discussion.		% electrification of bus fleet	No funding allocated. See comments	SOTCC are in initial conversions with First Bus regarding their proposals for fleet and depot electrification options. Challenges include funding allocation for feasibility or delivery. Difficulties around identifying a, suitable, depot location for depot for use by, grid capacity. Enabling accessibility to all bus operators. Grid connections/Council fleet and 3 <sup>rd</sup> party charging opportunities

# Table 5-5(d): Air Quality Action Plan Supplementary Measures (continued)

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
22	Low Emissions Vehicles Infrastructure (LEVI)	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging			Stoke-on-Trent City Council	LEVI Pilot (£150k) and LEVI Capital Funding (£2.4 million)	NO	Funded		Planning		No. of chargers installed and utilisation stats	<ul> <li>Action included in draft EV Infrastructure Delivery Strategy 2025-2030.</li> <li>LEVI Pilot contract awarded in July 2024 and now in process of installing 30 charging points (60 charging sockets) for public use, prioritising residential areas with a high reliance for on street parking. All LEVI Pilot funded chargers to be installed by summer 2026.</li> <li>LEVI Capital funding to deliver 400+ charging points (800 + sockets) between 2026-30. Would ensure most residential properties without off street parking would be within few minutes' walk of a public charging point.</li> </ul>	No significant LEVI Pilot delivery challenges identified. LEVI Capital (called 3 <sup>rd</sup> LEVI consortium) Tender is now live (from 18 <sup>th</sup> April) and will close on 26 <sup>th</sup> June. This contract includes 90% of our LEVI Capital funding (£2,400,000). Contract evaluation in July. Contract to be awarded and commence in Sept 2025. LEVI Capital challenges are ensuring a suitable charging point operator is procured to deliver contract.
23	No new Taxis / PHVs with a combustion engine vehicle will receive a permit after 31st March 2027.	Promoting Low Emission Transport	Taxi Licensing conditions	2027		Stoke-on-Trent City Council		NO			Planning		No new internal combustion vehicles to be licensed	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	Risk of affordability and the actual availability of infrastructure to charge.
24	No Taxis/PHV with a combustion engine vehicle will receive a permit after 31st March 2030.	Promoting Low Emission Transport	Taxi Licensing conditions	2030		Stoke-on-Trent City Council		NO			Planning		No renewals for internal combustion vehicles only EV.	Action included in S-o- T CC Taxi and Private Hire Licence Policy (2025)	

# Table 5-6(e): Air Quality Action Plan Supplementary Measures (continued)

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
25	Installation of cycle lockers at key city locations	Promoting Travel Alternatives	Promotion of cycling	2026	2028	Stoke-on-Trent City Council	Future Active Travel Funding	NO	Future Active Travel Funding		Planning		More cycle lockers in key locations	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
26	Adult cycling training programme	Promoting Travel Alternatives	Promotion of cycling	2025	2026	Stoke-on-Trent City Council	Consolida ted Active Travel Fund	NO	In place	£6,000	Planning		Number of places taken up	Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
27	Cycle hire scheme	Promoting Travel Alternatives	Promotion of cycling			Stoke-on-Trent City Council		NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
28	Improved access to health and leisure facilities	Promoting Travel Alternatives	Other	2025	Ongoing	Stoke-on-Trent City Council		NO			Planning			Action included in S-o- T CC Transport Strategy and Delivery Plan 2022 - 2031	
29	Undertake preparatory work in relation to connecting social housing to the District Heat Network (Completed by 2033)	Other	Other	tbc	tbc	Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded	tbc	Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	
30	Offer heat energy to public and private sector customers, including schools and social housing tenants (Completed by 2033)	Other	Other			Stoke-on-Trent City Council	Stoke-on- Trent City Council	NO	Funded		Planning			Action included in S-o- T CC Energy Strategy 2023 - 2033	

# **5.1 Timescales of the AQAP Measures**

This Air Quality Action Plan is designed to complement the plan set out in the North Staffordshire Local Air Quality Plan, which details the development of actions aimed to ensure that NO<sub>2</sub> concentrations are below national threshold at hotspot locations across the authority. Full details of the measures and expected achievements are detailed within the plan.

The main focus of this action plan is to further reduce NOx emissions from the road transport network by encouraging a modal shift from using private vehicles to bus use and active travel options.

The authority has put in place its Bus Service Improvement Plan (2024) which builds upon the authorities 2021 programme. Capital investments for different components of the plan are timetabled to come into effect from September 2025 whilst the revenue schemes are timetabled to come into effect from March 2026.

The authority also has ambitions to encourage the uptake of active travel options through the promotion of active travel routes and the installation of cycling infrastructure. The authority has not currently timetabled funding for these schemes, but they will be considered in future funding cycles.

# **5.2 Air Quality Partners**

S-o-T CC's Public Protection Team within the Public Health, Protection & Wellbeing Directorate will continue to lead on monitoring and reporting matters relating to air pollution within the authority. The team will work with the following colleagues and partners to ensure that the maximum benefits to air quality are realised through planned action.

- Highways and Transport Policy Team
- Planning and Development Team
- Public Health Consultants

# 5.3 Maintaining Safe Air Quality

Measurements collected during 2024 show that levels of NO<sub>2</sub> are below the threshold targets set for NO<sub>2</sub> as an annual average at all locations, bar DT17. Action to bring air quality into compliance with the national objectives are detailed in the NSLAQP.

The measures set out in this plan aim to both support actions that have been identified in the NSLAQP and further reduce concentrations of NO<sub>2</sub> and PM<sub>2.5</sub> where feasible.

The authority aims to ensure that all council teams and relevant partners continue to work together to ensure that feasible reductions in NO<sub>2</sub> are achieved through the identified plans, policies and measures which also have the potential to improve air quality as a secondary goal.

# 6 Quantification of Measures

The outcomes of the combined actions implemented by the NSLAQP, and this AQAP, predict that the measurements of NO<sub>2</sub> will continue to be below the Air Quality objective threshold in future years.

A modelling exercise has been carried out for each of the priority measures in our AQAP, with the results showing:

- NO<sub>2</sub> concentrations are predicted to reduce by 1% at the DT9 NO<sub>2</sub> monitoring location along the southern section of Waterloo Road as a result of the improved traffic flows through the Waterloo Road and Cobridge road junction. The modelling predicts an additional improve of approximately 1% due to the expected uptake of public and active travel options.
- NO<sub>2</sub> concentrations are predicted to reduce on average by 1.5% at monitoring locations across the authority due to the predicted modal shift from private car to public transport and active travel alternatives.
- NOx emissions are predicted to reduce by 5% and PM<sub>2.5</sub> emissions by 5% due to the potential improvement in energy efficiency of private dwellings as a result of the role out of the warm home grants.

Full details of the modelling are provided in Appendix B.

# **Appendix A: Response to Consultation**

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

Consultee	Category	Response
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Chamber of Commerce>	Business>	favour of buses and cycles; consider it will harm business of members>

TO BE COMPLETED AFTER CONSULTATION

# **Appendix B: Scenario modelling**

### **General approach**

Consideration was made to the impacts on levels of NO<sub>2</sub> by the undertaking of the four priority actions. Table 6-1 provides a summary of the approach undertaken to complete the evaluation.

Priority number	Priority description	Evaluation method
1	Reduce NO <sub>2</sub> concentrations at hotspot locations through the implementation of the NSLAQP plan.	These actions were appraised as part of the NSLAQP and are not considered further within this action plan.
2	Reduce NO <sub>2</sub> concentrations at the air quality monitor located along the southern section of Waterloo Road through by improving traffic flow through the Waterloo Road and Cobridge Road junction.	The air pollutant dispersion model used for appraising the impacts of the NSLAQP 2025 scenarios was adapted to reflect a flow improvement through the Waterloo Road and Cobridge Road junction. The model was adjusted through the modification of period traffic speeds in the underlying traffic model. A conservative estimate of a speed

#### Table 6-1: Assessment methods for scenario modelling

		improvement of 2 km/hr was used on
		road links served by this junction.
3	Reduce NOx emissions	The air pollutant dispersion model used
	from the road transport	for appraising the impacts of the
	network through increased	NSLAQP 2025 scenarios was adapted
	uptake of public transport	by reducing the number of private cars
	and active travel.	by 5%. The percent reduction is a
		conservative estimate based on the
		Department for Transports (DfT) Tool of
		changes programme <sup>17</sup> and national
		ambitions to increase active travel. <sup>18</sup>
4	Reduce emissions from	Defra / Ricardo's Scenario Modelling
	domestic housing by	Tool (SMT) was used to estimate a level
	increasing the energy	of reduction in NOx and PM2.5 emissions
	efficiency of domestic	from cavity walls and loft installation plus
	housing via the warm-	the transition from solid fuel appliances
	homes grant scheme.	to a greener alternative. The scenarios
		were modelled for 2030 based on a 5%
		update. Representing a conservative
		estimated reduction.

<sup>17</sup> https://www.toolsofchange.com/en/case-studies/detail/644/

<sup>18</sup> <u>https://www.gov.uk/government/publications/the-second-cycling-and-walking-investment-strategy/the-second-cycling-and-walking-investment-strategy-cwis2</u>

#### Estimate impact of measures

Table 6-2 details the expected NO<sub>2</sub> concentrations reductions from by the improved traffic flows at the Waterloo Road and Cobridge Road junction (P1), the modal shift from private cars to public transport or active travel options (P2) and the combined effect (P3) at each monitoring location across the authority.

#### Table 6-2(a): Expected percentage reductions at NO<sub>2</sub> monitoring locations in Stoke-on-Trent.

Site ID	Site name	Site Type	X OS Grid Reference	Y OS Grid Reference	Estimated percentage reduction from P1	Estimated percentage reduction from P2	Estimated percentage reduction from P3
DT2	Lamppost adj 6/8 Dividy Road	Roadside	389884	347288	0.0%	-1.7%	-1.7%
DT8A, DT8B, DT8C	AURN collocation	Urban Background	388355	347893	0.0%	-0.3%	-0.3%
DT9A, DT9B, DT9C	Drainpipe 344 Waterloo Road, Cobridge	Roadside	387626	348515	-0.8%	-1.9%	-2.7%
DT15A, DT15B, DT15C	Lamppost 8 20/22 Victoria Place	Roadside	389336	344693	0.0%	-1.4%	-1.4%
DT16A, DT16B, DT16C	Drainpipe 523/525 Etruria Road, Basford	Roadside	385975	346575	0.0%	-2.0%	-2.0%

Site ID	Site name	Site Type	X OS Grid Reference	Y OS Grid Reference	Estimated percentage reduction from P1	Estimated percentage reduction from P2	Estimated percentage reduction from P3
DT17A, DT17B, DT17C	Lamppost adj 481 Etruria Road, Basford	Roadside	386270	346782	0.0%	-1.7%	-1.7%
DT23A, DT23B, DT23C	Drainpipe 19/21 Bucknall New Road, Hanley	Roadside	388704	347608	0.0%	-1.0%	-1.0%
DT24	Drainpipe (Hairdressers) 64 Weston Road, Meir	Roadside	393201	342409	0.0%	-1.7%	-1.7%
DT34A, DT34B, DT34C	Lamppost 58 adj 97/99 Victoria Road, Fenton	Roadside	389232	345026	0.0%	-1.3%	-1.3%
DT37	Lamppost 10, adj Wrights pie shop, Weston Rd, Meir	Roadside	393260	342460	0.0%	-1.7%	-1.7%
DT51A, DT51B, DT51C	Lamppost 3 adj 445 Etruria Road, Basford	Roadside	386380	346860	0.0%	-1.3%	-1.3%
DT52A, DT52B, DT52C	Lamppost 11 adj 569 Etruria Road, Basford	Roadside	385812	346546	0.0%	-1.7%	-1.7%
DT53	Lamppost 7 College Road (side of 41 Queen Anne Street)	Roadside	387938	345939	0.0%	-2.2%	-2.2%

### Table 6-2(c): Expected percentage reductions at NO2 monitoring locations in Stoke-on-Trent (continued)

Site ID	Site name	Site Type	X OS Grid Reference	Y OS Grid Reference	Estimated percentage reduction from P1	Estimated percentage reduction from P2	Estimated percentage reduction from P3
DT56A, DT56B, DT56C	Basford Collocation Etruria Road	Roadside	386288	346802	0.0%	-1.7%	-1.7%
DT63A, DT63B, DT63C	Lamppost junction of Victoria St/Etruria Road	Roadside	385929	346563	0.0%	-2.0%	-2.0%
DT64A, DT64B, DT64C	Lamppost adj 2 Victoria Street	Roadside	385937	346531	0.0%	-1.9%	-1.9%
DT65A, DT65B, DT65C	Lamppost adj 8 Victoria Street	Roadside	385943	346504	0.0%	-1.9%	-1.9%
DT66A, DT66B, DT66C	Lamppost adj 100 Victoria Street	Roadside	385979	346316	0.0%	-1.6%	-1.6%
DT67A, DT67B, DT67C	Lamppost adj 411 Shelton New Road	Roadside	386024	346153	0.0%	-1.7%	-1.7%
DT72A, DT72B, DT72C	Telegraph pole adj 113 Victoria Street	Roadside	386014	346137	0.0%	-1.9%	-1.9%
DT73A, DT73B, DT73C	Lamppost Victoria Street side of 506 Hartshill Road	Roadside	386020	345933	0.0%	-1.8%	-1.8%
DT74	Lamppost adj 107 Weston Road	Roadside	393294	342509	0.0%	-1.7%	-1.7%

Site ID	Site name	Site Type	X OS Grid Reference	Y OS Grid Reference	Estimated percentage reduction from P1	Estimated percentage reduction from P2	Estimated percentage reduction from P3
DT75	Lamppost adj 877 Uttoxeter Road	Roadside	393370	342178	0.0%	-1.6%	-1.6%
DT101A, DT101B, DT101C	Lamppost adj 514 Hartshill Road	Roadside	385999	345936	0.0%	-1.6%	-1.6%
DT102A, DT102B, DT102C	Lamppost adj 446 Hartshill Road	Roadside	386154	345835	0.0%	-1.8%	-1.8%
DT105A, DT105B, DT105C	Lamppost A53 bus stop westbound	Roadside	386591	347018	0.0%	-1.3%	-1.3%
DT106A, DT106B, DT106C	Lamppost A53 bus stop eastbound	Roadside	386660	347088	0.0%	-1.3%	-1.3%
DT107A, DT107B, DT107C	Lamppost cul-de- sac Kingsfield Road, Basford	Urban Background	385753	346267	0.0%	-0.5%	-0.5%
DT108A, DT108B, DT108C	Lamppost adj Hartshill Business Park, Shelton New Road	Roadside	385866	346117	0.0%	-1.1%	-1.1%
DT110A, DT110B, DT110C	Lamppost adj Screen Tech Print Essentials, Shelton New Road	Roadside	386164	346214	0.0%	-1.1%	-1.1%

### Table 6-2(e): Expected percentage reductions at NO<sub>2</sub> monitoring locations in Stoke-on-Trent (continued)

Site ID	Site name	Site Type	X OS Grid Reference	Y OS Grid Reference	Estimated percentage reduction from P1	Estimated percentage reduction from P2	Estimated percentage reduction from P3
DT140	Lamppost adj Lodge, Vivian Road, Fenton	Urban Background	389688	344963	0.0%	-1.2%	-1.2%
DT141 A, DT141 B, DT141 C	Collocation A50 AURN	Roadside	392584	342572	0.0%	-1.5%	-1.5%
DT142	Lamppost adj NVS Group, Etruria Valley Link Rd Roundabout	Roadside	386392	348454	0.0%	-1.4%	-1.4%
DT143	Lamppost junction of Marina Way/Lakewood Grove	Roadside	387009	347529	0.0%	-1.1%	-1.1%
CM1	Stoke-on-Trent Centre AURN	Site Type	388351	347895	0.0%	-0.2%	-0.2%
CM5	Basford	Roadside	386288	346802	0.0%	-1.7%	-1.7%
CM6	A50 Roadside AURN	Urban Background	392584	342572	0.0%	-1.5%	-1.5%

Table 6-3 shows the results from the assessment undertaken to quantify the impacts on NOx and PM<sub>2.5</sub> across Stoke-on-Trent using the Scenario Modelling Tool (SMT).

# Table 6-3: Predicted changes in pollutant emissions due to the role out of thewarm homes grant

Pollutant	Pollutant 2030 baseline (μg/m³)		Absolute change in pollutant emission (µg/m <sup>3</sup> )	Percentage change in pollutant emission (µg/m <sup>3</sup> )
NOx	0.0032	0.0031	0.0002	5%
PM <sub>2.5</sub>	0.0226	0.0215	0.0011	5%

The results show that emissions of both NOx and PM<sub>2.5</sub> are predicted to fall by 5% should 5% of properties within the authority convert from solid fuel heating appliances to cleaner alternatives.

# **Glossary of Terms**

Abbreviation	Description			
Air Quality Action Plan - A detailed description of meas outcomes, achievement dates and implementation meth showing how the local authority intends to achieve air qua values'				
AQMA Air Quality Management Area – An area where air poll concentrations exceed / are likely to exceed the relevant a objectives. AQMAs are declared for specific pollutants 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 <sub>2</sub>	Nitrogen Dioxide			
NOx	Nitrogen Oxides			
PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less			
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less			
SO <sub>2</sub> Sulphur dioxide				