



SOUTH
KESTEVEN
DISTRICT
COUNCIL

South Kesteven District Council

Air Quality Action Plan

In fulfilment of Part IV of the Environment Act 1995

Local Air Quality Management

December 2023

South Kesteven District 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 action we will take to improve air quality in South Kesteven District Council between 2024 - 2029.

This action plan replaces the previous action plan published in 2016. Projects delivered through the past action plan include completion of phase 1 and 2 of the Grantham Southern relief road; ongoing work to promote cycling, walking and public transport; an anti-idling campaign focused in and around the AQMA; and improvements in South Kesteven District Council's own vehicle fleet.

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 the less affluent areas^{1,2}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³. South Kesteven District Council is committed to reducing the exposure of people in South Kesteven to poor air quality to improve health.

We have developed actions that can be considered under 5 broad topics:

- Promoting low emission transport
- Promoting travel alternatives
- Public information
- Traffic management

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

³ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

- Vehicle fleet efficiency
- Our priorities are to sustain a downward trend in emissions reduction through partnership work. The delivery of the Grantham Southern relief road remains a major focus to divert traffic away from the town centre. Traffic management and infrastructure for walking and cycling are prioritised by the Grantham Transport Strategy published in 2022. The Clean Air Lincolnshire project will continue to raise awareness of issues of air quality and provide additional monitoring data within the AQMA. Vehicle fleet efficiency opportunities will continue to be implemented by South Kesteven District Council.

In this AQAP we outline how we plan to effectively tackle air quality issues within our control. However, we recognise that there are many air quality policy areas that are outside of our influence (such as vehicle emissions standards agreed in Europe), 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 South Kesteven District Council's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Environmental Health department of South Kesteven District Council Council with the support and agreement of the following officers and departments:

The Climate Change and Sustainability Officer

The final AQAP will be approved by:

Councillor Rhea Rayside – Cabinet Member for People and Communities.

Graham Watts - Assistant Director (Governance and Public Protection)

Ayeisha Kirkham – Head of Service – Public Protection

The AQAP has been developed in conjunction with Lincolnshire County Council from a highways and sustainability perspective.

This draft AQAP has not been signed off by a Director of Public Health. However, the final AQAP will be reviewed by the Director of Public Health.

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This Air Quality Action Plan (AQAP) has been prepared and developed in partnership with other relevant bodies, particularly the Highways team of Lincolnshire County Council (LCC) and the relevant teams of South Kesteven District Council to incorporate localised engineered measures in the AQMA.

This AQAP will be subject to an annual review, appraisal of progress and South Kesteven District Councils Environment over and scrutiny Committee. Progress each year will be reported in the Annual Status Reports (ASRs) produced by South Kesteven District Council, as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP, please send them to Tom Amblin-Lightowler at:

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1 Introduction

This report outlines the actions that South Kesteven District Council will deliver between 2024 – 2029 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 South Kesteven District Council administrative area.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at the latest and progress on measures set out within this Plan will be reported on annually within South Kesteven District Council's air quality ASR.

South Kesteven District Council is committed to working to improve the air quality in our district where levels of air pollutants are exceeding air quality objectives.

Air quality in South Kesteven is generally good. However, there are locations where pollutant levels are high, with the highest levels being along narrow, congested street canyons (roads with properties close to the road on either side of the street) in Grantham.

Monitoring has revealed that the annual mean air quality objectives for NO₂ for the previous 3 years have been close to the National Air Quality objective of 40 µg/m³ but have not exceeded this threshold at any of the monitoring locations in Grantham town centre, some of which are within an Air Quality Management Area (AQMA).

Monitoring data for the last 5 years with the Air Quality Management Area have identified:

- There is an overall decreasing trend in nitrogen dioxide air pollution at monitoring sites.
- There remain three sites which have only been under objective levels for air pollution for the last 2-3 years, which includes 2020 where results are not considered typical due to abnormal traffic levels.

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- There were no exceedances of the 1 hour mean target for NO₂ air pollution for the last 5 years.

Department for Food and Rural Affairs (DEFRA) based upon the lack of exceedances of the 1 hour mean target that this be removed from the current AQMA.

There is now an intention to review the existing AQMA to reflect the update NO₂ monitoring data.

The district of South Kesteven is very diverse, comprising principal towns of Grantham, Stamford Bourne and The Deepings surrounded by small rural villages and hamlets.

The main source of air pollution in the district is road traffic emissions from major roads, notably the A1, A52, A15 and A607. The district and surrounding areas are illustrated in Figure 1.

2 Summary of Current Air Quality in South Kesteven District Council

Please refer to the latest ASR from South Kesteven District Council.

In 2013, the council declared an AQMA for the area encompassing the main roads in the town centre of Grantham. The AQMA is illustrated in Figure 2. Several roads included within the AQMA are likely to lead to a “street canyon effect” due to the road and building layout, trapping, and preventing the dispersion of air pollutant emissions from road-traffic, therefore explaining the high levels of pollution in these areas.

The 2011 Detailed / Further Assessment concluded that around 320 homes lie within the Grantham town centre AQMA, equating to an exposed population of around 650. The NO₂ monitoring data for the previous 5 years as stated have not exceed the annual or hourly means and we are confident that the proposed measure included within the AQAP will continue to see a downward trend and remain below the National Air Quality Objectives.

Historical source apportionment indicated that emissions from local moving traffic are the main contributor to overall NO₂ levels, although idling emissions due to queuing vehicles are also particularly important near traffic lights. Given that there has been no substantial changes to the physical environment and that it remains predominantly a residential and retail setting it remains highly likely that that local moving traffic is the main contributor of NO₂. As a source apportionment assessment has not been completed recently it is not clear as to whether Heavy-Duty Vehicles (HDVs) are still estimated to be a main source of pollution, in addition the contribution levels from Light-Duty Vehicles (LDVs).

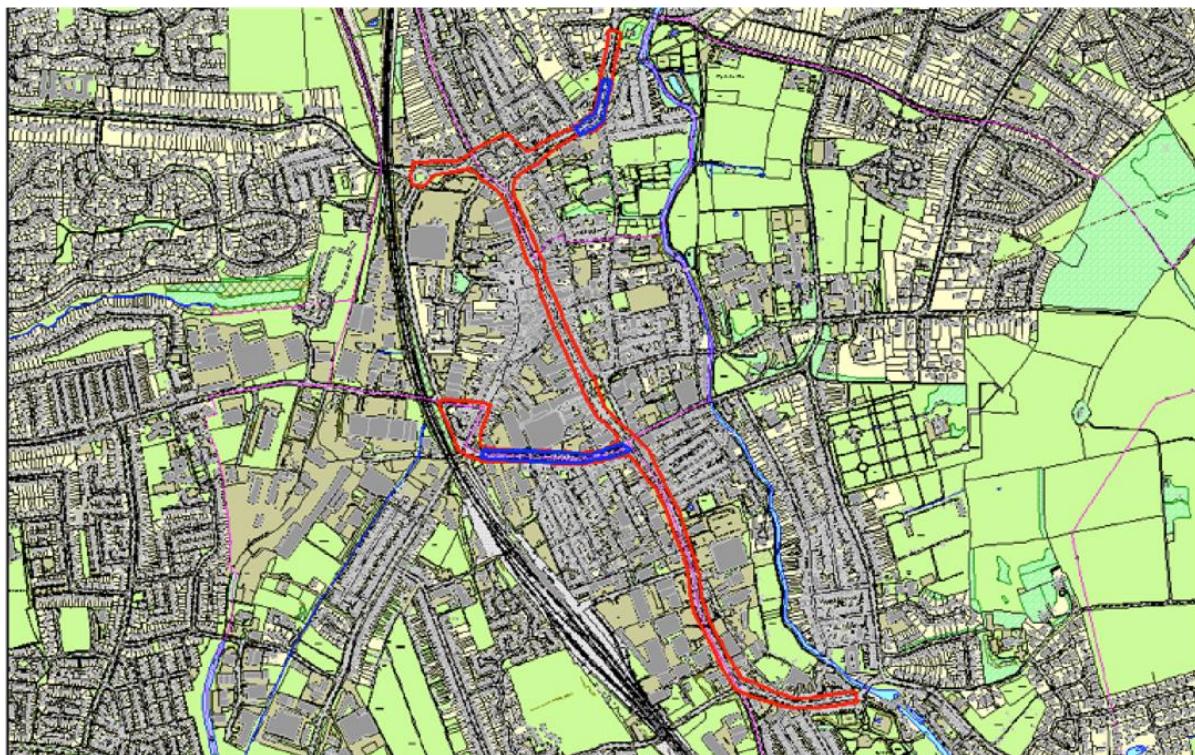


Figure 1 - Grantham Air Quality Management Area

In red, current AQMA boundary (declared in 2013). In blue, previous AQMA areas.

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The council carries out passive NO₂ monitoring at 37 sites across the district using diffusion tubes. This includes 15 duplicate tube and four triplicate tube locations, which are aimed at improving reliability of the data.

Full details of monitoring data are shown within the ASR:

[South Kesteven District Council ASR 2023 v3.pdf \(southkesteven.gov.uk\)](https://www.southkesteven.gov.uk/air-quality/air-quality-management-area-aqma)

3 South Kesteven District Council's Air Quality Priorities

3.1 Public Health Context

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of both heart and respiratory diseases and lung cancer⁴. Additionally, air pollution particularly 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 areas⁵⁶.

The mortality burden of air pollution within the UK is equivalent to 29,000 to 343,000 deaths at typical ages⁷, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017⁸.

Given that South Kesteven is predominantly a rural setting and that the NO₂ monitoring data from within the district is below the National Air Quality Objectives the healthy implications are deemed to be minimal.

3.2 Planning and Policy Context

South Kesteven Districts Local Plan 2011-2036 has links to improving air quality with the considerations for contributing to low-carbon travel through the expectations for residential and commercial developments to provide electric vehicle charging points⁹.

⁴ Health Matters: air pollution - GOV.UK (www.gov.uk)

⁵ Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

⁶ Defra, Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006.

⁷ Defra, Air quality appraisal: damage cost guidance, January 2023

⁸ Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

⁹ South Kesteven District Council. Local Plan 2011-2036

It is hoped that this will encourage the switch to electric vehicles and reduce traffics contribution towards NO₂ levels.

Additionally larger scale developments have development principles specified within the Local Plan to provide footway and cycleway connections to local amenities.

3.3 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within South Kesteven District Council's area.

A source apportionment exercise was carried out by South Kesteven District Council in 2014. At present an updated source apportionment exercise has been instructed and findings will be included in the final AQAP.

3.4 Required Reduction in Emissions

As the current monitored levels of NO₂ for the last 3 years are below the National Air Quality Objectives it has been determined as unnecessary to carry complete a required reduction in NO₂ exercise. The actions detailed within this AQAP once completed are intended to continue to reduce further and maintain below the AQS objectives.

3.5 Key Priorities

Our priorities are to sustain a downward trend in emissions reduction through partnership work. The delivery of the Grantham Southern relief road remains a major focus to divert traffic away from the town centre. Traffic management and infrastructure for walking and cycling are prioritised by the Grantham Transport Strategy published in 2022. The Clean Air Lincolnshire project will continue to raise awareness of issues of air quality and provide additional monitoring data withing the AQMA. Vehicle fleet efficiency opportunities will continue to be implemented by South Kesteven District Council.

- Priority 1 - The delivery of the Grantham Southern relief road remains a major focus to divert traffic away from the town centre – Phase 3

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- Priority 2 – Implementation of Traffic management and infrastructure for walking and cycling has prioritised by the Grantham Transport Strategy published in 2022.
- Priority 3 – Raise continual awareness conjunction with the Clean Air Lincolnshire project.

4 Development and Implementation of South Kesteven District 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 requires local authorities to consult the bodies listed in Table 4.1. We propose to consult on this AQAP in early 2024 with stakeholder and methodology for consultation detail below.

- Website
- Articles in local newspaper
- Questionnaire available via online survey platform
- Localised marketing campaign.>

The response to our consultation stakeholder engagement will be published within the final AQAP.

Table 4.1 – Consultation Undertaken

Consultee	Consultation Undertaken
The Secretary of State	No
The Environment Agency	Yes - proposed
The highways authority	Yes - proposed
All neighbouring local authorities	Yes - proposed
Other public authorities as appropriate, such as Public Health officials	Yes - proposed
Bodies representing local business interests and other organisations as appropriate	Yes - proposed

4.2 Steering Group

As part of developing this Action Plan, a steering group was established to review the existing actions that are in progress to improve air quality within the South Kesteven District Council's Air Quality Management Area as well as any future actions. This steering group will also oversee the implementation and monitoring of the actions contained within this and future revisions of the Action Plan.

This steering group is chaired by the Head of Service – Public Protection and consist of the following internal service areas:

- Environmental Health – Environmental Protection Leads
- Sustainability & Climate Change Lead
- Waste Services
- Planning Policy Team
- Housing Maintenance Services

The internal steering group liaise directly with relevant external stakeholders which include:

- Lincolnshire County Council – Highways
- Lincolnshire County Council - Assisting Development Team
- Lincolnshire County Council – Public Health

5 AQAP Measures

Table 5.1 shows the South Kesteven District Council AQAP measures. It contains:

- a list of the actions that form part of the plan.
- the responsible individual and departments/organisations who will deliver this action.
- estimated cost of implementing each action (overall cost and cost to the local authority)
- expected benefit in terms of pollutant emission and/or concentration reduction.
- the timescale for implementation
- how progress will be monitored

NB: Please see future 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 Year	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
M1	Grantham Southern Quadrant East West Relief Road	Traffic Management	Strategic highway improvements, Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	Ongoing project	2025	Lincolnshire County Council Highways & South Kesteven District Council	Lincs County Council Highways Infrastructure funding Highways England Growth and Housing Fund Developer contributions	No	Fully funded	>£10 million	Implementation	0.5 - 1 µg/m3	Reduced HGV through traffic in the town centre – reduced overall traffic flows through the town	Work commenced on site in late 2015. Phase 1 complete, Phase 2 completed December 2022, Phase 3 estimated completion 2025.	In progress, potential delay to estimated completion date.
M2	Improve traffic management at key junctions.	Traffic Management	Strategic highway improvements, Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane.	Ongoing project	2024+ 3-5 years	Lincolnshire County Council Highways	Lincs County Council Highways Infrastructure funding	No	As funding opportunities arise	£50k-£100k	Planning	1 - 2 µg/m3	Reduced congestion and increased average speeds through the AQMA.	The Grantham Transport Strategy 2023 sets out several improvements planned for improving traffic management in and around Grantham.	Lack of funding/change in priorities
M3	Improvements in Bus fleet emissions	Promoting Low Emission Transport	Other	Ongoing project	2024+ 3-5 years	Lincolnshire County Council Highways & South Kesteven DC	Lincolnshire County Council Transport Services	No	As funding opportunities arise	£50k-£100k	Planning	1 - 2 µg/m3	Improved bus fleet composition. Bus use more attractive to potential users – increased passenger numbers.	The Lincolnshire Bus Service Improvement Plan 2023 has been approved. Working in partnership with operators and stakeholders this will enhance bus services and further improve the bus offer to residents and visitors over the next 5 - 10 years.	Lack of funding/change in priorities
M4	Clean Air Lincolnshire air quality monitoring and	Public Information	Via the internet	2023	2024+ 1-2 years	Lincolnshire County Council and South Kesteven DC	DEFRA	Yes	Fully funded	£50k-£100k	Implementation	0.2 - 0.5 µg/m3	Engagement sessions completed with school in AQMA.	Air monitors installed and engagement session underway	Clean Air Lincolnshire is a county wide project

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Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	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
	communication														
M5	Encouraging modal shift	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	Ongoing	2024+ 3-5 years	Lincolnshire County Council and South Kesteven DC	Lincolnshire County Council South Kesteven District Council	No	Partially funded	<£10k	Implementation	0.2 - 0.5µg/m3	Reduced vehicle uses and increased use of public transport.	The Grantham Cycling & Walking Network Plan has been developed as part of the new Grantham Transport Strategy 2022. This document will inform all future schemes.	Lack of funding
M6	Provision of Cycling infrastructure	Promoting Travel Alternatives	Promotion of cycling	Ongoing	2024+ 3-5 years	Lincolnshire County Council Highways	Lincs County Council Highways Infrastructure funding Active Travel England funding	No	Not funded	£100k-500k	Planning	0.2 - 0.5µg/m3	Increased number of cycle lanes makes cycling a more attractive alternative method of transport.	The Grantham Cycling & Walking Network Plan has been developed as part of the new Grantham Transport Strategy 2022. This document will inform all future schemes.	Lack of funding/change in priorities/developments
M7	Rolling programme of replacing older more polluting vehicles with newer cleaner vehicles	Vehicle fleet efficiency	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	Ongoing	2024+ 3-5 years	South Kesteven District Council	South Kesteven District Council	No	Partially funded	£100k-500k	Implementation	0.2 - 0.5µg/m3	Continue to improve average euro class of the whole council owned fleet and introduce additional EVs.	Fleet review completed 2021. New depot site targeted end of 2025 Review further EV implementation 2026 onward	Relocation of fleet to new facilities.
M8	Implement improved travel planning amongst the council's employees.	Public information	Via the internet	Ongoing	2024+ 3-5 years	South Kesteven District Council	South Kesteven District Council	No	Partially funded	<£10k	Implementation	0.2 - 0.5µg/m3	Reduce number of council staff driving to work	Staff travel survey completed 2020 showing decrease in single occupancy car travel. Hybrid working policy in place from 2021 to minimise need to travel. Cycle to work scheme in place- approx. 6 users each year	Lack of take up

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
EU	European Union
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