Charnwood

Air Quality Strategy

2025 - 2030

DRAFT 07/02/2025

Contents

Glossary

Abbreviation	Term	Definition
AQAP	Air Quality Action Plan	A document that outlines how a local authority will address air quality issues. AQAPs are a statutory requirement under the Local Air Quality Management process for authorities where AQMAs have been declared.
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.
ASR	Annual Status Report	A yearly report that local authorities in England and Wales submit to the government to assess air quality in their areas.
CBC	Charnwood Borough Council	Charnwood is a local government district with 'borough' status in the north of Leicestershire, England. Towns in the Borough include Loughborough, Shepshed, and Syston.
COMEAP	Committee on the Medical Effects of Air Pollutants	An independent advisory committee that provides scientific advice to the UK government on the health effects of air pollutants.
Defra	Department for Environment, Food & Rural Affairs	Defra is a government department who are responsible for improving and protecting the environment.
JSNA	Joint Strategic Needs Assessment	The JSNA was developed by Leicestershire County Council Public Health Department. The health inequalities chapter examines the different measures of poverty and deprivation and who experiences these in Leicestershire.
LAQM	Local Air Quality Management	LAQM is the government's air quality regime that requires local authorities to regularly review and assess the air quality in their areas.

LCC	Leicestershire County Council	LCC is an upper tier of local government covering the Leicestershire region.
LCWIPs	Local Cycling and Walking Infrastructure Plans	A strategic approach to identifying cycling and walking improvements required at the local level, as set out in the government's Cycling and Walking Investment Strategy.
LTP4	Local Transport Plan 4	Leicestershire's fourth Local Transport Plan sets out the vision for transport across the County to 2050.
MSOA	Middle Super Output Area	MSOAs are used by the Office for National Statistics; they comprise between 2,000 and 6,000 households and have a resident population between 5,000 and 15,000 persons.
NAEI	National Atmospheric Emissions Inventory	The NAEI is the standard reference air emissions inventory for the UK and includes emission estimates for a wide range of important pollutants.
NO2	Nitrogen Dioxide	A gas that is produced along with nitric oxide (NO) by combustion processes. Together they are often referred to as oxides of nitrogen (NOx).
PM_{10}/$PM_{2.5}$	Particulate Matter	A generic term used to describe a complex mixture of solid and liquid particles of varying size, shape, and composition. PM_{10} and $PM_{2.5}$ are those particles that are less than 10 or 2.5 microns (µm) in diameter.
SPD	Supplementary Planning Document	SPDs provide additional details to policies laid out in Local Plans and should be accounted for when submitting a planning application.
UKHSA	UK Health Security Agency	A government department which prevents, prepares for and responds to infectious diseases, and environmental hazards, to keep all our communities safe (formerly Public Health England, PHE).

Foreword

The quality of the air we breathe plays a major part in the overall health of our communities, affecting everyone. We know that some people are more vulnerable to the impact of air quality than others, and we want to ensure that all our residents and the people who work or visit Charnwood, can breathe the cleanest air possible.

Air pollution continues to be the biggest environmental risk to human health[1], and although air quality has improved significantly in Charnwood, we can't afford to be complacent. We all have a role to play in improving the air we breathe; this is not something that the Council can do alone. Collaboration is very much at the heart of this Strategy, working with and supporting residents, local partners, and businesses, to bring about meaningful improvement.

As the Lead member for Climate Action and Net Zero, I am proud to present our first Air Quality Strategy. It has been produced with input from a wide range of stakeholders and members of the public to ensure it represents what is important to our community. It includes key action areas that we will be taking over the next five years to help us to deliver further improvements to air quality whilst meeting the Council's themes of "Healthy Communities", "Thriving Economy" and "Caring for the Environment".

Cllr Beverley Gray

Executive Summary

This Strategy outlines the actions that Charnwood Borough Council will deliver between 2025 and 2030 in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting the health and quality of life of residents and visitors to the Borough.

Our priorities for delivery of this Strategy are:

- **Compliance with legal standards** - Ensure continued compliance with UK air quality objectives and the LAQM process;
- **Public health protection** - Reduce health inequalities from air pollution;
- **Community engagement and collaboration** - Raise public awareness of the health effects of poor air quality;
- **Reduce emissions from development** - Reduce the impact from development and regeneration on air quality;
- **Reduce domestic, industrial and agricultural emissions;**
- **Reduce emissions from road transport;** and
- **Encourage behaviour change**, particularly in relation to domestic and transport emissions.

Why do we need to improve air quality?

Air quality has improved in Charnwood over recent decades. However, air pollution continues to be the **biggest environmental risk to public health**. Air pollution affects people's health throughout all life stages, including before birth. The impacts of air pollution on people's health can be felt in the short-term (for example in increased hospital admissions and mortality), with long-term exposure associated with a range of conditions, such as: stroke, lung cancer, respiratory conditions, and cardiovascular disease. Air pollution does not affect everyone equally, with some members of the population exposed to higher levels of pollution for longer periods of time, and some having a greater susceptibility to the health impacts of air pollution.

Air quality in Charnwood

The Council currently measures air quality **concentrations** in the Borough at three automatic monitoring sites which measure a range of pollutants (nitrogen dioxide, particulate matter, sulphur dioxide), and a further 48 diffusion tube (nitrogen dioxide only) sites. There were no exceedances of any of the air quality objectives across Charnwood in 2023 (the most recent validated year of monitoring data available).

The measures presented in this Strategy are therefore targeted towards the predominant sources of **emissions** within the Borough. The sector that is the greatest source of PM10 emissions includes quarrying and food manufacturing, followed by domestic solid fuel burning. Domestic solid fuel burning is the greatest source of PM2.5 emissions within the Borough, followed by road transport. The greatest emissions of oxides of nitrogen (NOx) are from road transport, followed by other mobile sources and machinery.

As improvements in outdoor air pollution levels occur, **indoor air pollution** is becoming an increasing proportion of exposure to pollutants. We spend most of our time indoors, whether we are at home, work, studying, or enjoying leisure activities. While some factors affecting the concentration of pollutants are outside an individual's control, **individual behaviours** are a significant determinant of indoor air pollutant concentrations.

Action Areas

Eight areas that require action to improve air quality throughout Charnwood have been identified as:

1. Planning
2. Road Transport
3. Industry & Agriculture
4. Collaboration between Air Quality & Climate Change
5. Public Awareness
6. Health Inequalities
7. Domestic Burning
8. Indoor Air Quality

These areas are covered in more detail in the Strategy, with specific actions included.

What you can do now

Improving air quality requires everyone to reflect on how their actions can influence the emissions generated by their behaviours, and how to reduce their own personal exposure to pollution. We want to support residents and visitors to the Borough in making these choices. Suggested actions that can be started now include:

- Using public transport (e.g. buses and trains) to move around the Borough
- Choose to walk or cycle for short journeys instead of using the car
- Reduce burning solid fuels (e.g. wood)
- Reduce damp and mould by controlling humidity and ventilation
- Spread awareness about the impact of air pollution on everyone's health, and encourage others to reduce emissions

What we will do next

The Council is committed to continue monitoring pollutant concentrations even though the Air Quality Management Areas are now revoked. We will continue to report monitoring data within our Annual Status Reports (ASR), which are available online.

Annual updates on progress in delivering the Strategy will be reported within the ASR, which is appraised by Defra. The Strategy will be kept under review and will be updated when appropriate to do so.

An Air Quality Strategy for Charnwood

Introduction

This Strategy outlines the actions that Charnwood Borough Council (CBC) will deliver between 2025 and 2030 in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting the health and quality of life of residents and visitors to the Borough.

The Strategy has been developed in recognition of the legal requirement on the local authority to achieve and maintain the 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) process.

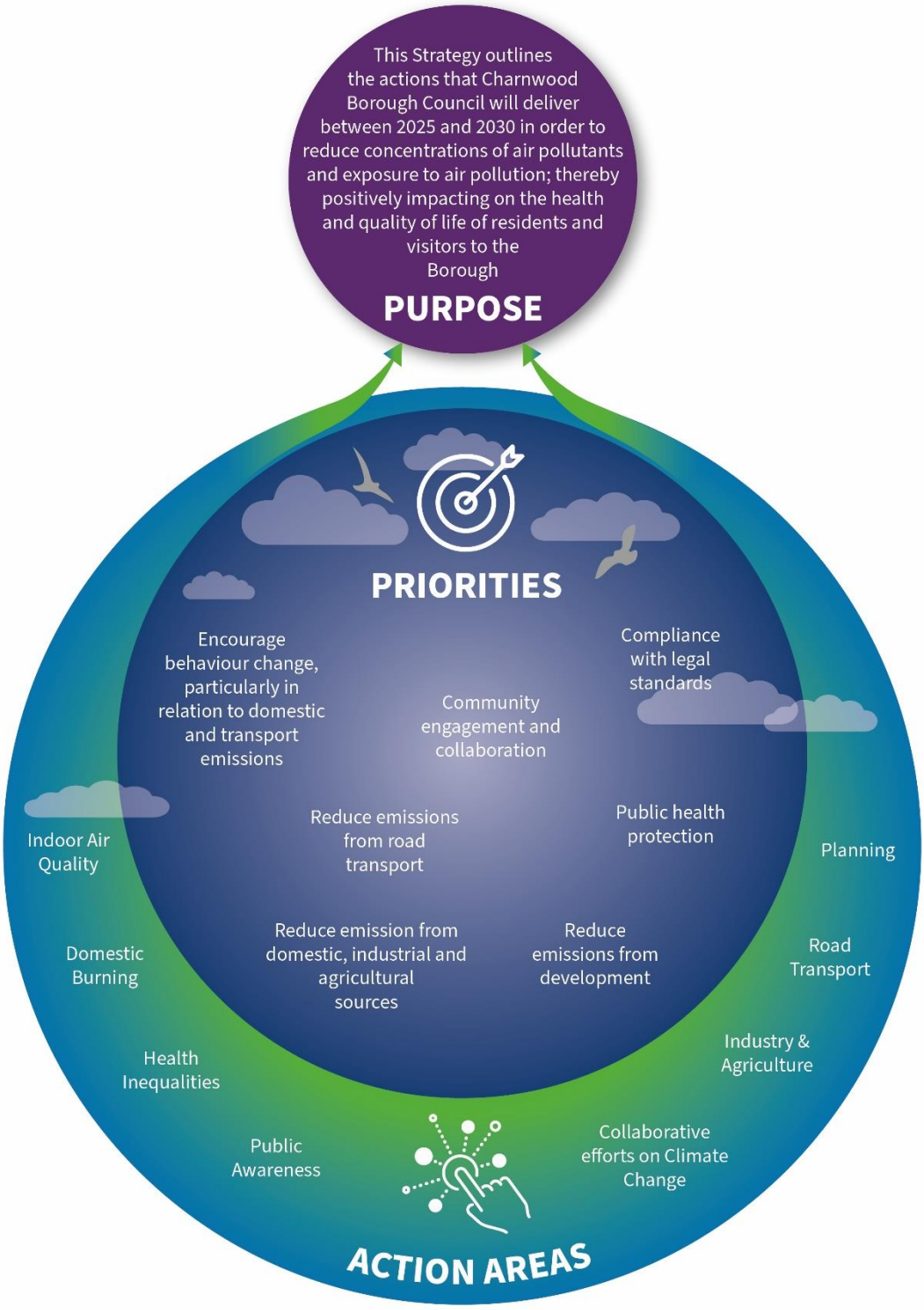
This Strategy replaces the previous Air Quality Action Plan (AQAP) developed by the Council. It will be reviewed and amended as required, while progress on measures set out within this Strategy will be reported on annually within CBC's air quality Annual Status Report (ASR).

In developing this Strategy, we have collaborated with others, particularly Leicestershire County Council (LCC), to ensure consistency with wider policy measures for the whole County.

Our Priorities

The Strategy is shaped by the following priorities:

- **Compliance with legal standards** - Ensure continued compliance with UK air quality objectives and the LAQM process;
- **Public health protection** - Reduce health inequalities from air pollution;
- **Community engagement and collaboration** - Raise public awareness of the health effects of poor air quality;
- **Reduce emissions from development** - Reduce the impact from development and regeneration on air quality;
- **Reduce domestic, industrial and agricultural emissions;**
- **Reduce emissions from road transport;** and
- **Encourage behaviour change**, particularly in relation to domestic and transport emissions.


This Strategy outlines the actions that Charnwood Borough Council will deliver between 2025 and 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 Borough
PURPOSE
PRIORITIES
Encourage behaviour change, particularly in relation to domestic and transport emissions
Compliance with legal standards
Community engagement and collaboration
Reduce emissions from road transport
Public health protection
Reduce emission from domestic, industrial and agricultural sources
Reduce emissions from development
Indoor Air Quality
Planning
Domestic Burning
Road Transport
Health Inequalities
Industry & Agriculture
Public Awareness
Collaborative efforts on Climate Change
ACTION AREAS

Why do we need to improve air quality?

Public Health Impacts

Air quality has improved in Charnwood over recent decades. However, air pollution continues to be the biggest environmental risk to public health across England[1].

The impacts of air pollution on people's health can be felt in the short-term through symptoms such as: exacerbation of asthma, coughs, wheezing, and shortness of breath. Episodes of high air pollution increase respiratory and cardiovascular hospital admissions and mortality[2]. Meanwhile long-term exposure is associated with a range of conditions, such as: stroke, lung cancer, respiratory conditions, and cardiovascular disease.

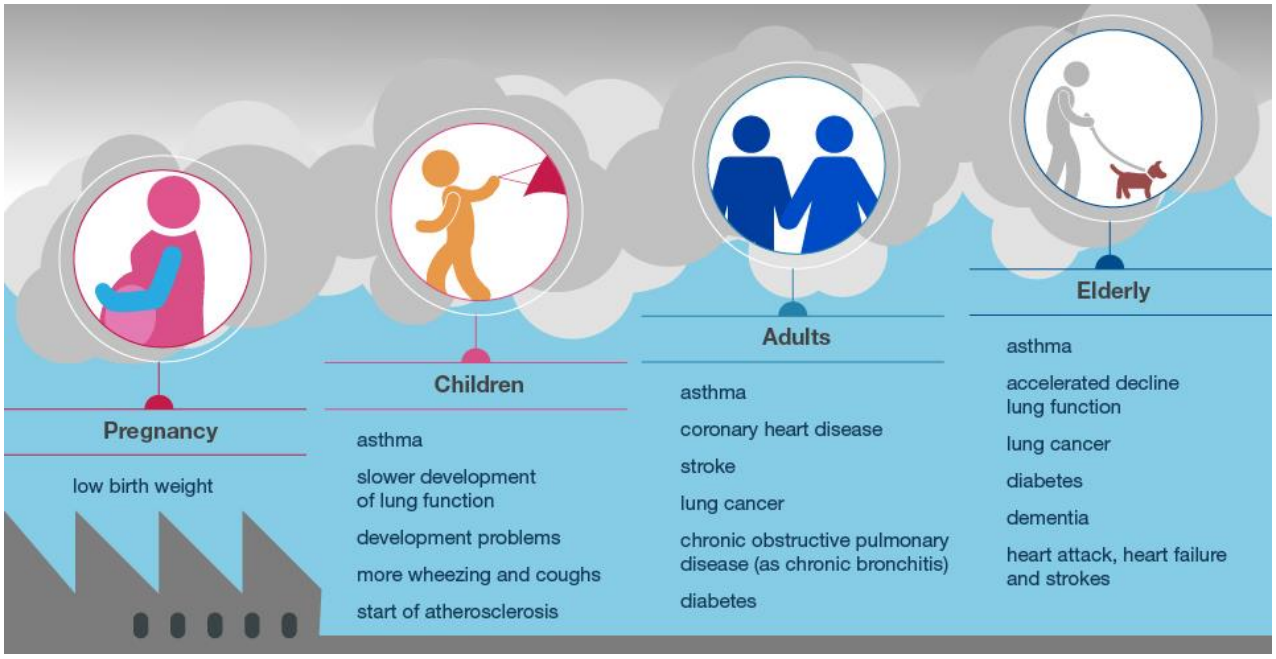


Figure 1: Lifetime effects of air pollution

Source: Public Health England (now UK Health Security Agency, UKHSA)

Air pollution affects people's health throughout all life stages, including before birth, as summarised in Figure 1. Exposure to air pollution reduces people's life expectancy; the mortality burden of long-term exposure to outdoor air pollution in England is estimated to be equivalent to

[1] Defra (2023) The air quality strategy for England. Available: https://www.gov.uk/government/publications/the-air-quality-strategy-for-england

[2] Public Health England (2018) Health matters: air pollution. Available: https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution

26,000 - 38,000 deaths a year[3,4]. In Charnwood, the fraction of mortality attributable to particulate air pollution is 7.1%, which is the highest in the East Midlands region and greater than the average for England (5.8%)[5].

The health impacts of air pollution also have a financial impact. It is estimated that the potential costs to the NHS and social care system due to the health impacts of particulate matter and nitrogen dioxide in England between 2017 and 2025 was £1.69 billion.

What are the main pollutants of concern?

Particulate Matter (PM) is a generic term used to describe a complex mixture of solid and liquid particles of varying size, shape, and composition. Some particles are emitted directly (primary PM); others are formed in the atmosphere through complex chemical reactions (secondary PM). In particular, ammonia from agricultural sources is a known pre-cursor for secondary PM. PM is classified according to aerodynamic size - **PM_{10} and $PM_{2.5}$** are those particles that are less than 10 or 2.5 microns (µm) in diameter.

Nitrogen Dioxide (NO_2) is a gas that is produced along with nitric oxide (NO) by combustion processes, such as petrol and diesel vehicles, and gas boilers. Together they are often referred to as oxides of nitrogen (NOx).

Who is most vulnerable to air pollution?

Air pollution does not affect everyone equally. Some population groups have a physiological susceptibility to the health impacts of air pollution, such as those with underlying health conditions, and others are likely to be exposed to higher levels of pollution for longer periods of time. In addition to those with pre-existing health issues, vulnerable groups include[3]:

- Children; children are particularly susceptible to the health effects of air pollution as their lungs and other organs are still developing.
- Pregnant women; there is growing evidence worldwide that the health of pregnant women and their babies could be affected by air pollution, impacting lung function and increasing the risk of low birth weights.
- Socio-economically deprived; studies of hospital admissions and mortality show increased health risks associated with exposure to air pollution among those living in areas of higher socio-economic deprivation.

[3] Chief Medical Officer's Annual Report 2022: Air pollution. Available: https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf

[4] The figure is noted as 'equivalent to' because air pollution is considered to be a contributory factor to mortality. This estimate was calculated by the UKHSA, based on recommendations from the Committee on the Medical Effects of Air Pollutants (COMEAP).

[5] Department of Health & Social Care, Public Health Outcomes Framework. Available: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/1/gid/1000043/pat/6/par/E12000004/ati/501/are/E07000130/iid/93861/age/230/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1/page-options/car-do-0

LCC's Joint Strategic Needs Assessment (JSNA) on Health Inequalities identified six neighbourhoods across the Charnwood District which are deemed to be of a high risk in terms of potential health inequalities. These are shown in Figure 2, and currently include the following middle layer super output areas (MSOAs): Loughborough Lemyngton & Hastings, Storer and Queens Park, University, Shelthorpe & Woodthorpe, Syston West and Shepshed East. This data is likely to be updated as the JSNA is updated.

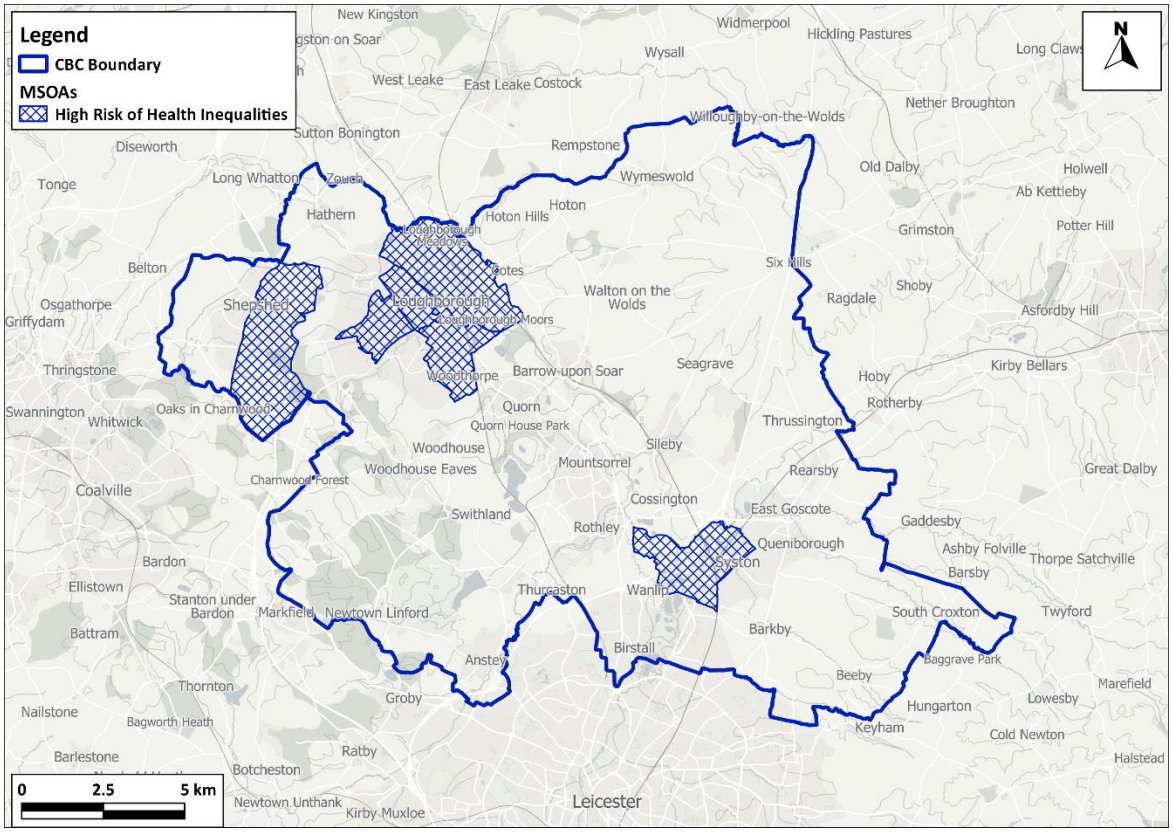


Figure 2: MSOAs in Charnwood which have been identified as a high risk of health inequalities

Legislation and Standards

The Government has established a set of air quality Standards[6] to protect human health. The Standards reflect the concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The Standards are based on assessment of the effects of each pollutant on human health, including the effects on sensitive sub-groups. The objectives for use by local authorities are prescribed within the Air Quality (England) Regulations[7] and the Air Quality (England) (Amendment) Regulations[8].

Defra has also recently set two new targets, and two new interim targets, for $PM_{2.5}$ concentrations in England for achievement nationally. One set of targets focuses on absolute

[6] Air Quality Standards Regulations (2010) and amended through The Air Quality Standards (Amendment) Regulations 2016 and The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020.

[7] HMSO (2000) The Air Quality (England) Regulations 2000 Statutory Instrument 928

[8] HMSO (2002) The Air Quality (England) (Amendment) Regulations 2002, Statutory Instrument 3043

concentrations. The long-term target is to achieve an annual mean $PM_{2.5}$ concentration of 10 µg/m^3 by the end of 2040 (referred to as the annual mean concentration target or AMCT), with the interim target being a value of 12 µg/m^3 by the start of 2028. The second set of targets relate to reducing overall population exposure to $PM_{2.5}$. By the end of 2040, overall population exposure to $PM_{2.5}$ should be reduced by 35% compared with 2018 levels (referred to as the population exposure reduction target or PERT), with the interim target being a reduction of 22% by the start of 2028.

The relevant air quality criteria are provided in Table 1. There is also increasing evidence showing health effects of exposure to lower levels of pollutants. Therefore, this Strategy aims to reduce emissions on a more general basis across Charnwood.

Table 1: Air Quality Criteria for NO_2, PM_{10} and $PM_{2.5}$

Pollutant	Time Period	Value	Responsibility
NO_2	1-hour Mean	200 µg/m^3 not to be exceeded more than 18 times a year	Local Authority
	Annual Mean	40 µg/m^3	
PM_{10}	24-hour Mean	50 µg/m^3 not to be exceeded more than 35 times a year	
	Annual Mean	40 µg/m^3	
$PM_{2.5}$	Annual Mean	12 µg/m^3 by 2028 (interim AMCT)	National Government
		10 µg/m^3 by 2040 (AMCT)	

Climate Change

Air Quality and Climate Change actions interact in a variety of ways; greenhouse gases and air pollutants often come from the same source, some local pollutants are climate active, climate change may make air quality issues worse (for example, hotter drier summers will lead to more heatwaves and wildfires creating more pollution events). Climate change may also exacerbate health effects, for example hotter drier summers can also increase the physiological stress on our bodies, which may make us more susceptible to air pollution. There are also possible trade-offs in policy decisions, for example in managing emissions from combustion we need policies that give appropriate weight to both air quality and climate change.

Air Quality in Charnwood

Recent Changes

CBC had previously declared four Air Quality Management Areas (AQMAs) for historic exceedances of the NO_2, PM_{10}, and sulphur dioxide objectives. However, these were all revoked in September 2024 as monitoring showed pollutant concentrations had decreased and remained below the objective for a number of years. More information on the revocation can be found online here.

Monitoring Air Quality

CBC currently[9] measures air quality in the Borough at three automatic (continuous) monitoring sites which measure a range of pollutants (NO_2, PM_{10}, SO_2), and a further 48 diffusion tube (NO_2 only) sites. The locations of the monitoring sites are shown in Figure 3. There were no exceedances of any of the air quality objectives across Charnwood in 2023.

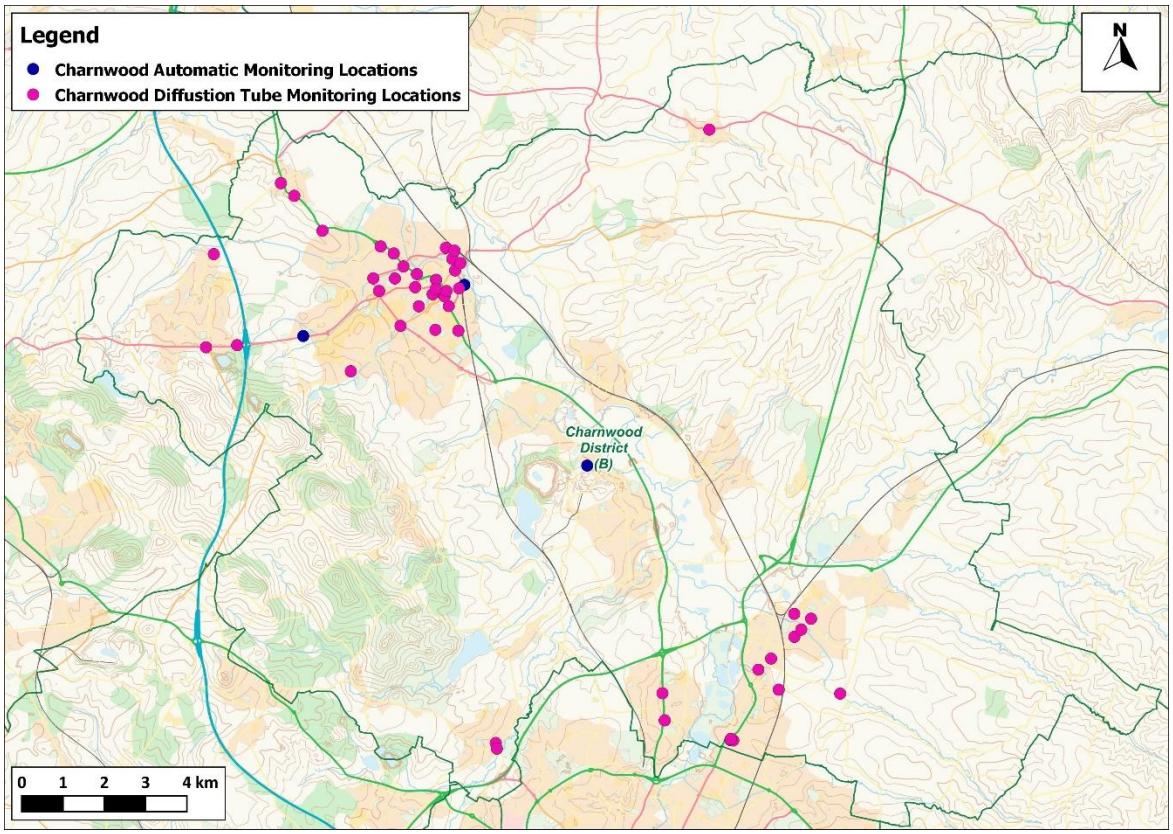


Figure 3: Air quality monitoring sites operated by CBC

[9] As of 2024 ASR, reporting on monitoring undertaken in 2023.

Where does air pollution in Charnwood come from?

The measures presented in this Strategy are intended to be targeted towards the predominant sources of emissions within CBC's area.

A source apportionment exercise was carried out using data from Defra's background concentration maps[10] and the National Atmospheric Emissions Inventory (NAEI)[11]. Both sources of information are provided at a 1km-by-1km grid resolution, and average concentrations / total emissions across all grid squares covering Charnwood have been calculated.

A summary of sources contributing to PM_{10}, $PM_{2.5}$ and NOx **background concentrations** is presented in Figure 4. Defra provide the proportion of concentrations from local and non-local sources. Local sources are those which CBC are able to influence directly, while non-local sources are those which are transported into the Borough from further afield.

Within Charnwood, a large proportion of the background particulate matter (PM_{10} and $PM_{2.5}$) concentrations are attributable to non-local sources. The largest **local** sources of PM_{10} and $PM_{2.5}$ concentrations are the combustion of fossil fuels from domestic and industrial sectors. The predominant local source of NOx is road transport, accounting for approximately one fifth of background NOx concentrations.

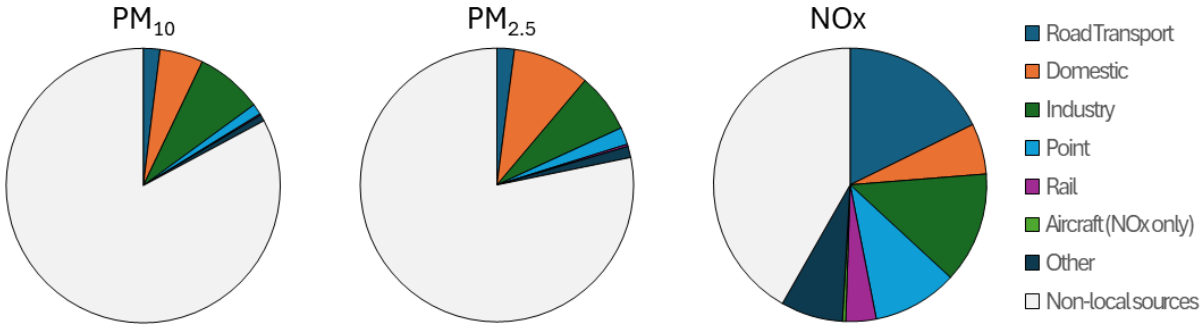


Figure 4: Average background concentrations across Charnwood and the contributions from local and non-local sources, as provided by the Defra 2021-based background maps[10].

The direct **emissions** of pollutants, as modelled by the NAEI, is summarised in Figure 5. The production process sector (which includes quarrying and food manufacturing) is the greatest source of PM_{10} emissions within the Borough, followed by non-industrial combustion plant (i.e., domestic solid fuel burning). Non-industrial combustion plant is the greatest source of $PM_{2.5}$ emissions within the Borough, followed by road transport. The greatest emissions of NOx are from road transport, making up over 50% of total NOx emissions, followed by other mobile sources and machinery, and non-industrial combustion plant.

[10] Defra (2024) Background Mapping data for local authorities – 2021. Selected year: 2025. Available: https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2021

[11] NAEI (2021) UK Emissions Interactive Map. Available: https://naei.energysecurity.gov.uk/emissionsapp/

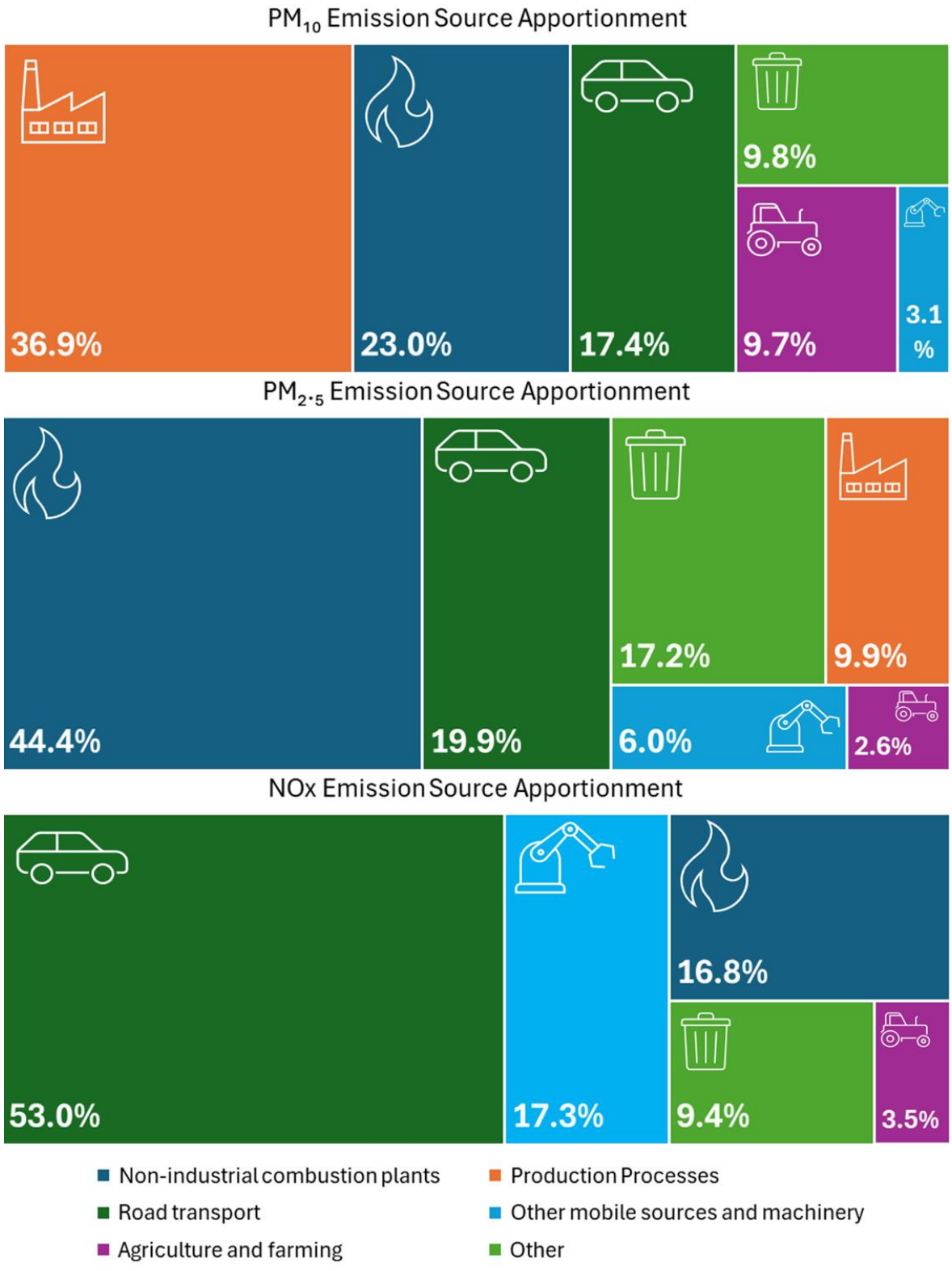


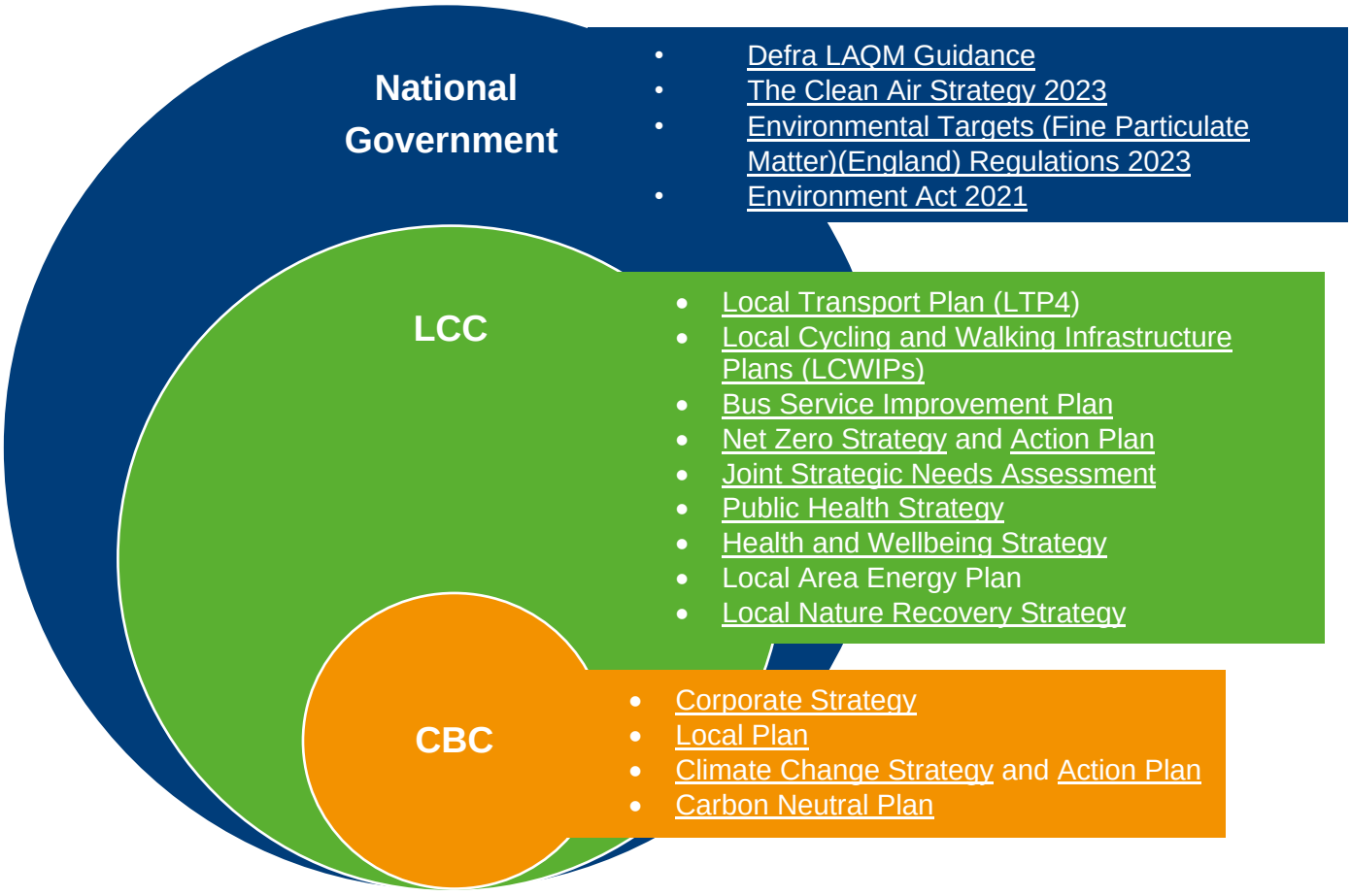
Figure 5: Proportion of emissions of PM_{10}, $PM_{2.5}$, and NOx by source in Charnwood, as detailed in the NAEI.

Note the 'Other' category consists of: waste collection treatment and disposal activities; combustion in manufacturing industry; combustion in energy and transformation industries; solvent and other product use; and other sources and sinks.

As improvements in outdoor air pollution levels occur, as shown through CBC's own monitoring, indoor air pollution is becoming an increasing proportion of exposure to pollutants. We spend most of our time indoors, whether we are at home, work, studying, or enjoying leisure activities. However, indoor pollution is highly complex and has not been as well studied as outdoor pollution. There are a wide range of sources including: building materials, furnishings, the use of combustion appliances such as gas and solid fuel cookers, boilers and stoves, the consumption of solvent-containing products, and the use of consumer products (e.g. cleaning and personal care products)[12]. While some factors affecting the concentration of pollutants are outside an individual's control, such as ventilation in a public building, individual behaviours are a significant determinant of indoor air pollutant concentrations.

How does this Strategy interact with other policies?

Local, County, and National policies that address air quality in Charnwood are summarised below:



[12] Air Quality Expert Group (2022) Indoor Air Quality. Available: https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2211011000_15062022_Indoor_Air_Quality_Report_Final.pdf

Action Areas

The areas that require action to improve air quality throughout Charnwood are outlined below, with specific actions listed. More detail regarding the actions that CBC will take are listed in the *Charnwood Air Quality Strategy Actions* section, including responsible organisations and timescales.

Planning

The planning system has an important role to play in improving air quality and reducing exposure to air pollution. Both the development of local planning policies and the determination of individual planning applications are important, the former setting the framework for the latter. Over the long term, the use of the planning system will reduce emissions and exposure to poor air quality, and reduce health inequalities, by ensuring development is located in sustainable locations within the Borough and that they follow a 'Better by Design' approach. Currently, relevant new developments assess air quality at the application stage, using the EPUK and IAQM Planning Guidance criteria outlining when an air quality assessment is required, and this approach will continue. The Council also currently encourage developers to maximise opportunities for integrating green infrastructure provision within development sites. Additionally, the emerging Charnwood Local Plan contains policy 'EV 11: Air Quality' that seeks to support the aim of improving air quality in the Borough.

The new $PM_{2.5}$ targets set out in the *Legislation and Standards* section of this Strategy require a different approach to that used by Local Authorities in response to existing air quality legislation. The new approach moves away from a requirement to assess solely whether a scheme is likely to lead to an exceedance of a legal limit and instead ensures that appropriate mitigation measures are implemented from the design stage, streamlining the process for planning and ensuring the minimum amount of pollution is emitted and that exposure is minimised. Interim guidance has been published, pending guidance on how these requirements will be implemented in practice.

What we will do next

1. Ensure that any new requirements for reducing $PM_{2.5}$ through planning, which are likely to be in place in the timeframe of this Strategy, are fully implemented.
2. Ensure that any future review of the Local Plan fully considers air quality, incorporating policies on air quality and health inequalities.
3. Develop our understanding of how green space can contribute to air quality improvement in principle, and in the specific context of Charnwood/individual development sites.
4. Review the need for further local planning guidance. This could include: a Supplementary Planning Document (SPD) on air quality to ensure consistency in assessing planning applications and asking for mitigation; incorporating construction dust and air quality in a Housing SPD; ensuring that any future Design Codes include consideration of Air Quality (for example in orientation and layout of developments to reduce exposure, or by incorporating renewable energy sources to reduce emissions).

5. Consider preparing guidance for the introduction of Health Impact Assessments (HIAs) for new developments to address health inequalities in longer term.

Road Transport

Leicestershire County Council is the transport authority which covers Charnwood, and hence partnership working with LCC is critical to reducing transport emissions. CBC will do what it can to reduce emissions from road transport by encouraging modal shift to active travel and public transport alternatives, by removing vehicles from the roads, and by encouraging less polluting vehicles for the remaining necessary journeys.

We are currently working with LCC on delivering LTP4, which aims to reduce the volume of traffic and encourage a transformation of transport infrastructure in favour of active transport. CBC are also installing EV charging points in CBC Car Parks through the Flex D Project (Solar powered electric charge points), as well as working with LCC on delivering an integrated EV on-street charging network across the Borough. With regards to public transport, we are supporting LCC with the Leicestershire Enhanced Bus Partnership. All of these activities will continue throughout the timeframe of this Strategy.

In order to encourage modal shift to cycling and walking, the Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a strategic approach to identifying cycling and walking improvements required at the local level, and a mechanism to bid for funding. Another specific way of increasing cycling and walking is the implementation of School Streets, which close roads to motor traffic outside a school during drop off and pick up times, in order to improve safety, reduce emissions and provide a safer environment for walking and wheeling.

One area which CBC could influence directly is through the taxi licensing system, as taxis are licensed at Borough level. Also, in order to reduce emissions from the LGV and HGV fleet, we are proposing to investigate the feasibility of joining the ECO Stars scheme that helps fleet operators improve efficiency, lower emissions, reduce fuel consumption, and make resulting cost savings.

What we will do next

1. Support the implementation of the Local Cycling and Walking Infrastructure Plans (LCWIPs) in Loughborough and north of Leicester.
2. Review taxi licensing policy in Charnwood to further incentivise newer (less polluting) vehicles.
3. Investigate the feasibility of joining the ECO Stars Fleet Recognition Scheme.
4. Support LCC on the implementation of School Streets within locations in Charnwood identified as having the greatest health inequalities.
5. Continue to improve and support passenger transport across Bus, Rail, Demand Responsive Transport and Community Transport, through ongoing delivery of the Local Transport Plan, Bus Service Improvement Plan and Leicestershire Enhanced Partnership, to reduce reliance on the car. Introduction of electric buses from Zero Emission Bus Fund in Loughborough and Melton.

Industry & Agriculture

CBC does not have direct control over agricultural emissions or most industrial emissions. However, we will work in partnership with others to do what we can to ensure emissions from industrial and agricultural processes are controlled, and where possible reduced, to reduce both direct emissions of pollutants and secondary formation of PM_{10} and $PM_{2.5}$. Agricultural emissions could be tackled in partnership with LCC who are consulting on a Local Nature Recovery Strategy, which is primarily aimed at landowners, farmers, local authorities and environmental groups to bring together landscape scale, multifaceted approaches focused on preserving, conserving and enhancing nature and meeting other environmental objectives such as climate change, flood mitigation and improved air and water quality.

Part A, A2, and B permits are environmental permits that control emissions from industrial installations. The type of permit required depends on the specific processes and emissions involved. Part A1 processes are the largest emitters, and are regulated by the Environment Agency, with Part A2 and Part B's regulated by CBC.

We are currently working with the Environment Agency to ensure that Part A permitted processes, such as the Shepshed energy from waste plant, are operating effectively, within the bounds set by the permits, while also ensuring that relevant information is disseminated to residents.

In relation to Part B permits, we carry out a risk-based inspection programme of all Local Authority regulated installations under the Environmental Permitting Regulations 2016 (as amended) to ensure compliance with pollution control conditions. We also review all Local Authority EPR permits and update them as and when appropriate to ensure operating conditions are up to date with latest guidance. Mountsorrel Quarry operates under a Part B permit; CBC publishes monitoring data from the local area and the site's Dust Action Plans to ensure these are available to public.

What we will do next

1. Encourage farmers to use the Code of Good Agricultural Practice (COGAP) for Reducing Ammonia Emissions, in partnership with LCC Public Health Team.
2. Support central government, by responding to consultations, on actions to reduce ammonia emissions.

Collaborative actions for Air Quality & Climate Change

Climate change is a global crisis. The climate is changing at an unprecedented rate across the world. Climate impacts are also felt locally. In towns and cities observed climate change has impacted human health, livelihoods and key infrastructure, most notably in extreme weather conditions. Collaborative actions for air quality and climate change cover those trying to reduce emissions from combustion within energy use, actions to encourage behaviour change away from the use of private vehicles, and using alternatively fuelled vehicles where journeys are necessary.

CBC are currently working across both air quality and climate change by reducing energy usage and adopting sources of low carbon energy within CBC operations, and enabling community and businesses to benefit from energy efficiency initiatives and low carbon solutions. We are also encouraging staff to sign up to Green Rewards app which incentivises actions to reduce our carbon footprint, and decarbonising transport use within CBC operations and services. CBC staff are already encouraged to reduce and decarbonise their travel choices through the cycle to work scheme, access to an electric staff vehicle pool car, an electric vehicle staff salary scheme, and the encouragement of flexible and remote working.

What we will do next

1. Implement a ‘solar hub’ for low carbon EV charging in Loughborough.
2. Improve energy efficiency of Council owned homes by upgrading insulation and installing new windows, doors, and more energy efficient heating systems.
3. Support the use of more sustainable modes of transport in preference to motorised journeys through the implementation of a CBC staff Travel Plan and the Carbon Net Zero Plan.

Public Awareness

CBC will raise awareness of air quality issues and implications to people's health to encourage behavioural change with regard to road transport and domestic burning, therefore reducing emissions as well as exposure to poor air quality.

We are currently working with partners including local authorities across Leicestershire, Transport and Public Health teams within Leicestershire County Council, to communicate environmental behaviour change and best practice, to increase active travel and reduce domestic burning. Our annual air quality reports, including monitoring data, are also available online. We have, and will continue to, support Clean Air Day on an annual basis.

What we will do next

1. Review our air quality monitoring network to ensure that sites provide coverage of pollutants, areas of health inequalities, and specific sources.
2. Market Better Points App to the public and increase local reward partners.
3. Improve information available on CBC website to include information on air quality and health, and encouragement of behaviour change to improve air quality.

Health Inequalities

Health inequalities are the preventable and unfair differences in health outcomes, such as life expectancy and years of life spent in good health, between groups, populations or individuals as a result of unequal social, environmental and economic conditions. As outlined in the *Who is most vulnerable to air pollution?* section, air pollution does not affect everyone equally. Public Health Colleagues at LCC, through the Leicestershire Joint Health and Wellbeing Strategy, are already working to reduce health inequalities of which air quality is a part. CBC will support LCC and seek to reduce the inequality in exposure to poor air quality across the Borough by prioritising actions in MSOAs identified in the JSNA to reduce emissions, and by continuing to work collaboratively across Leicestershire with the Air Quality and Health Partnership Group to reduce health inequalities.

What we will do next

1. Work with Public Health colleagues at LCC to ensure that work undertaken across the County on health inequalities is fully integrated into CBC strategies, and where possible actions in this Air Quality Strategy are prioritised within the latest MSOAs identified with the highest risk of health inequalities.
2. Ensure that particularly vulnerable members of the population are prioritised from a health perspective (i.e., children, the elderly, those with pre-existing conditions) - for example by targeted communications.

Domestic Burning

As outlined in the *Where does air pollution in Charnwood come from?* section, domestic solid fuel burning is a large contributor to emissions of PM_{10} and $PM_{2.5}$ in Charnwood. CBC will therefore seek to reduce emissions from domestic burning through increasing public awareness to reduce the quantity of fuel burnt and improve burning practices, alongside policy enforcement on businesses selling solid fuels.

We currently respond to complaints relating to domestic solid fuel burning to increase awareness and ensure best practice, where possible. We will continue with this work.

What we will do next

1. Investigate the feasibility of declaring a Smoke Control Area in Charnwood, including what geographical area it could cover.
2. Increase public awareness around domestic burning, including a campaign for Clean Air Night (in partnership with LCC), and general awareness raising on social media and through other communications methods.
3. Work with LCC Trading Standards to ensure that the Domestic Solid Fuel Regulations are enforced (which cover sales of solid fuel).

Indoor Air Quality

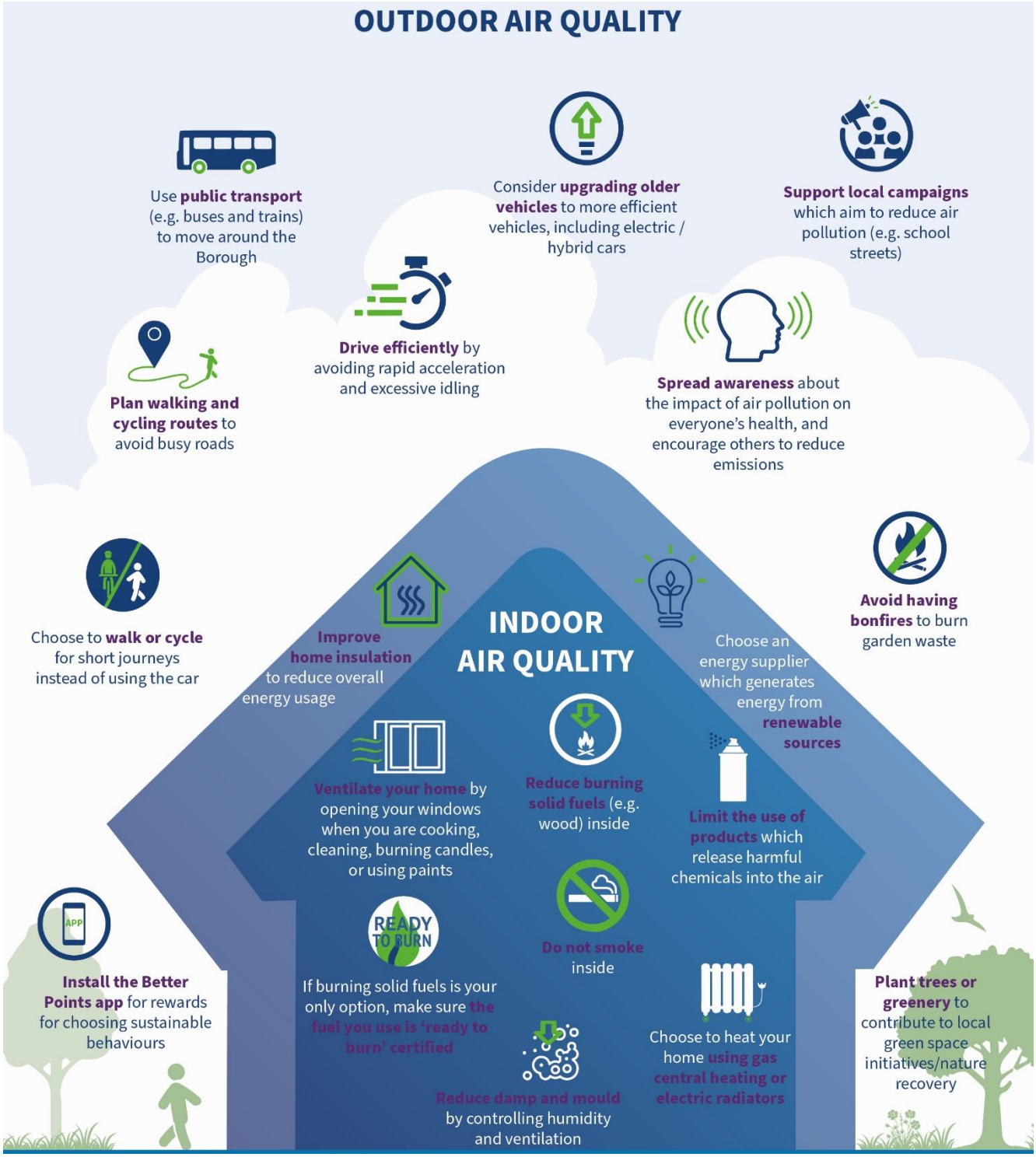
People spend a substantial fraction of their lives indoors (often 80-90%) and so these locations can represent a significant proportion of exposure to air pollution. Indoor air quality is complex and has been studied far less than air quality outdoors. Indoor air quality is determined by ingress of outdoor air, indoor sources, balanced with pollutant loss processes such as ventilation. There are a number of different indoor air pollutants, the one most visible being mould. CBC will work in partnership to first seek to improve damp and mould issues, particularly in homes highlighted as a high risk for health inequalities. On a Leicestershire basis, we are part of a 2-year Pilot Project which provides an accessible reporting system for front line NHS staff to report issues of damp and mould, in order that solutions can be put in place most effectively. The project has been funded by the ‘Better Care’ fund, and although currently has a damp and mould focus, it could incorporate other aspects of indoor air quality in the future. Currently the system provides an easy way for NHS staff to report any issues which need resolving but could also use Environmental Health students for routinely checking damp and mould issues.

What we will do next

1. Ensure Integrated Care Boards (ICBs) in Charnwood are aware of the reporting system for damp and mould. Provide support for further funding bids in order that the project is continued post 2025, with the potential to widen out to different indoor sources of pollution and to address the issue on a more reactive basis.
2. Support the Warm Homes team at LCC Public Health in targeting ventilation improvements where greatest benefit is anticipated.

What you can do now

Improving air quality requires everyone to reflect on how their actions can influence the emissions generated by their behaviours, and how to reduce their own personal exposure to pollution. We want to support residents and visitors to the Borough in making these choices. Suggested actions that can be started now are summarised below:



What we will do next

Monitoring

CBC is committed to continue monitoring pollutant concentrations even though the AQMAs are now revoked. CBC will continue to report monitoring data annually within ASRs which are available online here. The Council will also routinely review monitoring locations and will consider moving equipment to monitor concentrations in different locations, if appropriate, for example to provide more information for work on health inequalities.

An additional monitoring site is due to be installed as part of the Automatic Urban and Rural Network (AURN) network in Loughborough. The AURN monitoring network is run by UK-AIR (central government) and will complement the monitoring undertaken by CBC. Once the site is operational, it is anticipated that further information will be available via the interactive map and data portal.

Governance

Delivery of this Strategy will be overseen by the Charnwood Air Quality Steering Group, which has representatives from numerous departments across CBC and LCC, as detailed below:

Charnwood Borough Council (CBC)	Leicestershire County Council (LCC)
Environmental Health Sustainability and Climate Change Plans Policy & Place Making Private Sector Housing Ecology / Biodiversity Contracts (Leisure, Waste and Environment) Planning	Public Health Sustainable Transport Team Transport Strategy & Policy Environment Policy & Strategy

Annual updates on progress in delivering the Strategy will be reported within the ASR, which is appraised by Defra and published on the CBC website.

CBC will also report progress to the following groups: Leicester, Leicestershire and Rutland Air Quality Forum; East Midlands Air Quality Network; Leicestershire Air Quality and Health Partnership.

Evaluation

The Strategy will be kept under review and will be updated when appropriate to do so, considering the following:

- Introduction of new legislation or regulations;
- On declaration of Smoke Control Areas (if appropriate, as explored by action 21);
- Introduction of new sources of emissions;
- Changes to priorities; and
- Updates or changes to existing CBC/LCC policy or guidance impacting upon air quality.

Charnwood Air Quality Strategy Actions

ID	Action Area	Action	Responsible Individuals / Agencies	Timescale for Implementation	How progress will be measured
1	Planning	Ensure that any new requirements for reducing $PM_{2.5}$ through planning, which are likely to be in place in the timeframe of this plan, are fully implemented.	CBC Development Management (Planning and Growth) Environmental Protection	Awaiting further guidance from Defra/ Ministry of Housing Communities and Local Government	Difficult to monitor progress in terms of $PM_{2.5}$ emissions, but will track planning applications and specific mitigation measures
2	Planning	Ensure that the future review of the Local Plan fully considers air quality, incorporating policies on air quality and health inequalities.	CBC Plans, Policy and Placemaking – Planning and Growth Environmental Protection	Timescale will be dictated by Local Plan update timescales	Policy within future Local Plan (although will not completed in timeframe of this Strategy)
3	Planning	Develop our understanding of how green space can contribute to air quality improvement in principle, and in the specific context of Charnwood/individual development sites	CBC Plans, Policy and Placemaking – Planning and Growth Environmental Protection	2025-2026	Provision of information on green space and air quality internally and to developers.
4	Planning	Review the need for further local planning guidance. This could include: a Supplementary Planning Document (SPD) on air quality to ensure consistency in assessing planning applications and asking for mitigation; incorporating construction dust and air quality in Housing SPD; and / or ensuring that any future Design Codes include consideration of Air Quality	CBC Plans, Policy and Placemaking - Planning and Growth Environmental Protection	Timescales will be dependent on planning system, for example dictated by Design Code updates, Local Plan updates etc.	Incorporation of air quality considerations into local planning guidance will be reported on in ASR.

		(for example in orientation and layout of developments to reduce exposure).			
5	Planning	Consider preparing guidance for the introduction of HIAs for new developments to address health inequalities in longer term	CBC Plans, Policy and Placemaking – Planning and Growth Environmental Protection LCC Public Health	2025-2026	Preparation of Guidance on HIAs
6	Road Transport	Support the implementation of the Local Cycling and Walking Infrastructure Plans (LCWIPs) in Loughborough and north of Leicester.	LCC Sustainable Transport Team CBC Environmental Protection Team CBC Development Management Team-Planning and Growth	Ongoing throughout the timescale of this Strategy	Ongoing Cycling and walking statistics will become available as the LCWIP progresses
7	Road Transport	Continue to improve and support passenger transport across Bus, Rail, Demand Responsive Transport and Community Transport, through ongoing delivery of the Local Transport Plan, Bus Service Improvement Plan and Leicestershire Enhanced Partnership, to reduce reliance on the car. Introduction of electric buses from Zero Emission Bus Fund in Loughborough and Melton	LCC Sustainable Travel Team and Transport Strategy & Policy Team	By June 2026 46 new electric buses on Leicestershire Road,	9 Leicestershire bus routes electrified (services 2, 5, 9, 11/12, Sprint, 5/5a, 127)
8	Road Transport	Review taxi licensing policy in Charnwood to further incentivise newer (less polluting) vehicles.	CBC Licensing Team	2025	Review undertaken. Ultimately proportion of Euro 6 and zero emission taxis in fleet
9	Road Transport	Investigate the feasibility of joining the ECO Stars Fleet Recognition Scheme.	CBC Environmental Protection Team (but could be implemented in	2025	Decision on whether to implement

			partnership with other Leicestershire authorities)		
10	Road Transport	Support LCC on the implementation of School Streets within locations in Charnwood identified as having the greatest health inequalities.	LCC Choose how you move Team CBC Environmental Protection Team	Applications closed for 2024/25: 2025/26 onwards	Numbers of school streets implemented
11	Industry & Agriculture	Encourage farmers to use the Code of Good Agricultural Practice (COGAP) for Reducing Ammonia Emissions in partnership with LCC Public Health Team.	CBC Environmental Protection LCC Public Health	2025 - 2026	Any specific communications campaigns will be documented within the ASR
12	Industry & Agriculture	Support central government, by responding to consultations, on actions to reduce ammonia emissions.	CBC Environmental Protection	Ongoing	Any consultations responded to will be documented within the ASR
13	Air Quality & Climate Change collaboration	Implement 'solar hub' for low carbon EV charging in Loughborough.	Harborough District Council led project in partnership with CBC	2025	Level of charging undertaken once implemented
14	Air Quality & Climate Change collaboration	Improve energy efficiency of Council owned homes by upgrading insulation and installing new windows, doors, and more energy efficient heating systems.	Landlord Services	Ongoing to 2044	Numbers of properties retrofitted
15	Air Quality & Climate Change collaboration	Support the use of more sustainable modes of transport in preference to motorised journeys through the implementation of a CBC staff Travel Plan and the Carbon Net Zero Plan.	CBC Environmental Protection	Ongoing	Additional schemes could include: the use of pool bikes, car club vehicles, discounted public transport tickets for work travel, and the use of telematics and driver training.
16	Public Awareness	Review our air quality monitoring network to ensure that sites provide coverage of pollutants, areas of health inequalities, and specific sources.	CBC Environmental Protection	Review prior to 2026, ongoing monitoring	Reviews will be reported in ASRs and any changes to monitoring locations and/or

					number or monitoring sites will be documented.
17	Public Awareness	Market Better Points App to the public and increase local reward partners.	LCC Choose how You Move Team CBC Comms Team	2025 onwards	Number of users of Better Points App in Charnwood
18	Public Awareness	Improve information available on CBC website to include information on air quality and health, and encouragement of behaviour change to improve air quality.	CBC Environmental Protection LCC Public Health CBC Comms Team	2025 onwards	Improved web-based information. Numbers of visitors to website
19	Health Inequalities	Work with Public Health colleagues at LCC to ensure that work undertaken across the County on health inequalities is fully integrated into CBC strategies, and where possible actions in this Air Quality Strategy are prioritised within the latest MSOAs identified with the highest risk of health inequalities.	CBC Environmental Protection Team LCC Public Health	Ongoing through period of this Strategy	Improved health outcomes - as assessed through JSNA, which is regularly refreshed
20	Health Inequalities	Ensure that particularly vulnerable members of the population are prioritised from a health perspective (i.e., children, the elderly, those with pre-existing conditions) - for example by targeted communications.	LCC Public Health CBC Environmental Protection Team	Ongoing through period of this Strategy	Improved health outcomes for children, the elderly and those with pre-existing conditions
21	Domestic Burning	Investigate the feasibility of declaring Smoke Control Area in Charnwood, including what geographical area it could cover.	CBC Environmental Protection	Funding dependent	Feasibility study undertaken
22	Domestic Burning	Increase public awareness around domestic burning, including campaign for Clean Air Night (in partnership with LCC), and general awareness raising	CBC Environmental Protection LCC Public Health	Ongoing through period of this Strategy	Difficult to measure progress on awareness. Will report in ASR any specific communications undertaken

		on social media and through other communications methods.			
23	Domestic Burning	Work with LCC Trading Standards to ensure that the Domestic Solid Fuel Regulations are enforced (which cover sales of solid fuel).	LCC Trading Standards CBC Environmental Protection	2025 onwards	Level of compliance with Domestic Solid Fuel Regs (sales of fuel)
24	Indoor Air Quality	Ensure Integrated Care Boards (ICBs) in Charnwood are fully aware of the reporting system for damp and mould. Support for further funding bids in order that the project is continued post 2025, with the potential to widen out to different indoor sources of pollution and to address the issue on a more reactive basis.	CBC support, project coordinated by Hinckley and Bosworth (Housing and respiratory Illnesses Leicestershire).	2026 onwards	Improvements in resolution of issues (to be measured using Damp and Mould Dashboard)
25	Indoor Air Quality	Support the Warm Homes team at LCC Public Health in targeting ventilation improvements where greatest benefit is anticipated.	CBC Private Sector Housing LCC Public Health	Ongoing through period of this Strategy	Numbers of properties retrofitted within the ventilation requirements of PAS2035 (British standard for retrofitting domestic buildings to improve their energy efficiency). The targeting is based on overall energy efficiency ratings or eligible areas based on deprivation criteria.