Air Quality Strategy

2024



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Introduction

Air quality in the UK has improved significantly in recent decades with a decrease in all five major air pollutants. However, air pollution continues to be the biggest environmental risk to human health, disproportionately affecting those who are young, elderly and already vulnerable.

Air pollutants are emitted from a range of both man made and natural sources. Many everyday activities such as transport, industrial processes, farming, energy generation and domestic heating can all have a detrimental effect on air quality. Air pollution has a direct impact on our natural environment and contributes to the change in our climate. Protecting our natural environment protects our way of life, this is particularly true of air quality.

The primary source of air pollution within the borough is from road transport. The air quality monitoring carried out by Ashford Borough Council continues to indicate there is, in general, 'good' air quality within the borough. The air quality objectives for nitrogen dioxide (NO2) are being met and, in general, levels are reducing each year.

An Air Quality Strategy (AQS) is designed to encourage local authorities to take early preventative action to improve local air quality, avoid exceedances and reduce long-term health impacts associated with air pollution. Whilst vehicular emissions are a significant contributor to air pollution within the borough, it is not the only contributing factor. This AQS highlights other sources of emissions, such as domestic and commercial activities, and summarises the Council's approach to reducing these emission sources and promoting alternatives.

This document is designed to collate the Council's actions, measures and interventions relating to air quality that have been separately agreed as part of other policies and strategies, for example the Climate Change Strategy and Local Plan.

The document is designed to be a working document and updated as Council actions, policies are completed, amended or developed.

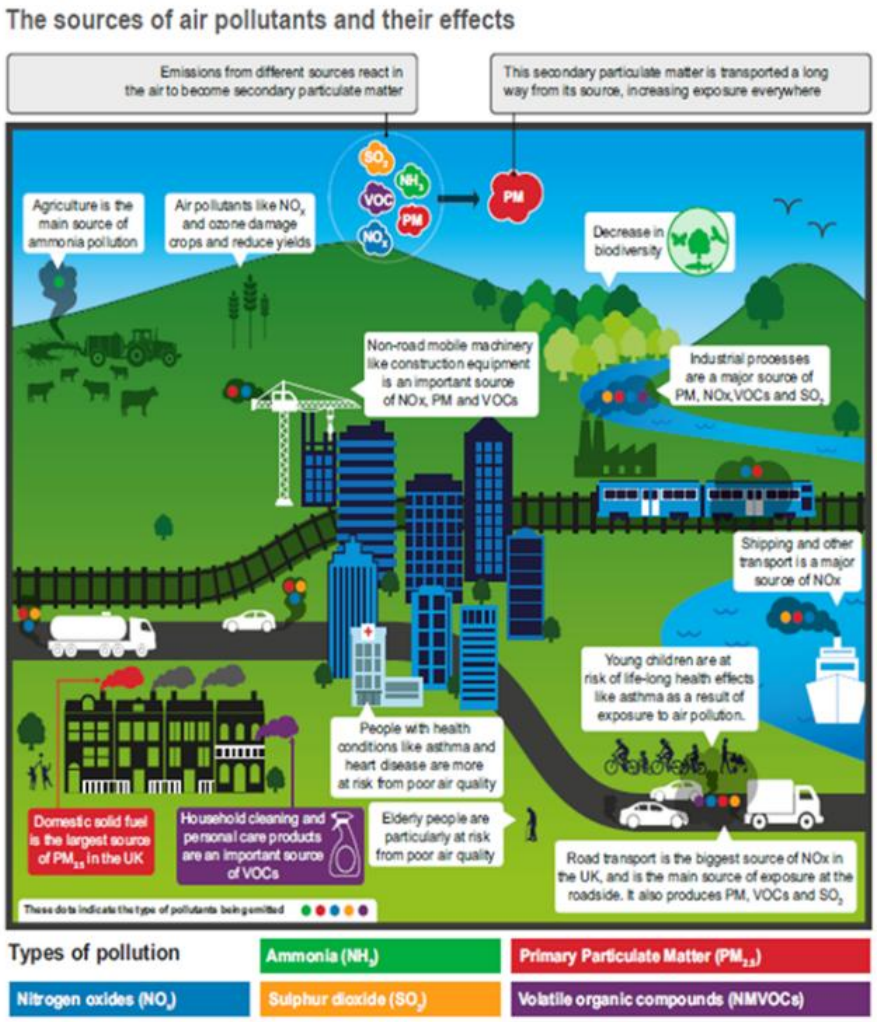
Air pollution is everyone's problem, and taking action to improve our air quality is everyone's responsibility.
There are small things we can all do that would make a big difference to pollution levels, both locally and nationally.
We must work together to protect each other from harm, as well as our environment.

What is air pollution?

Air pollution is a mixture of particles and gases that can have adverse effects of human health. Historically the main air pollutants have been high levels of smoke and sulphur dioxide emitted by the combustion of sulphur containing fossil fuels, such as coal. As heavy industry and coal burning has reduced in the UK, these levels have declined. More recently the most important primary air pollutants are particulate matter (PM) and nitrogen oxides (NOx).

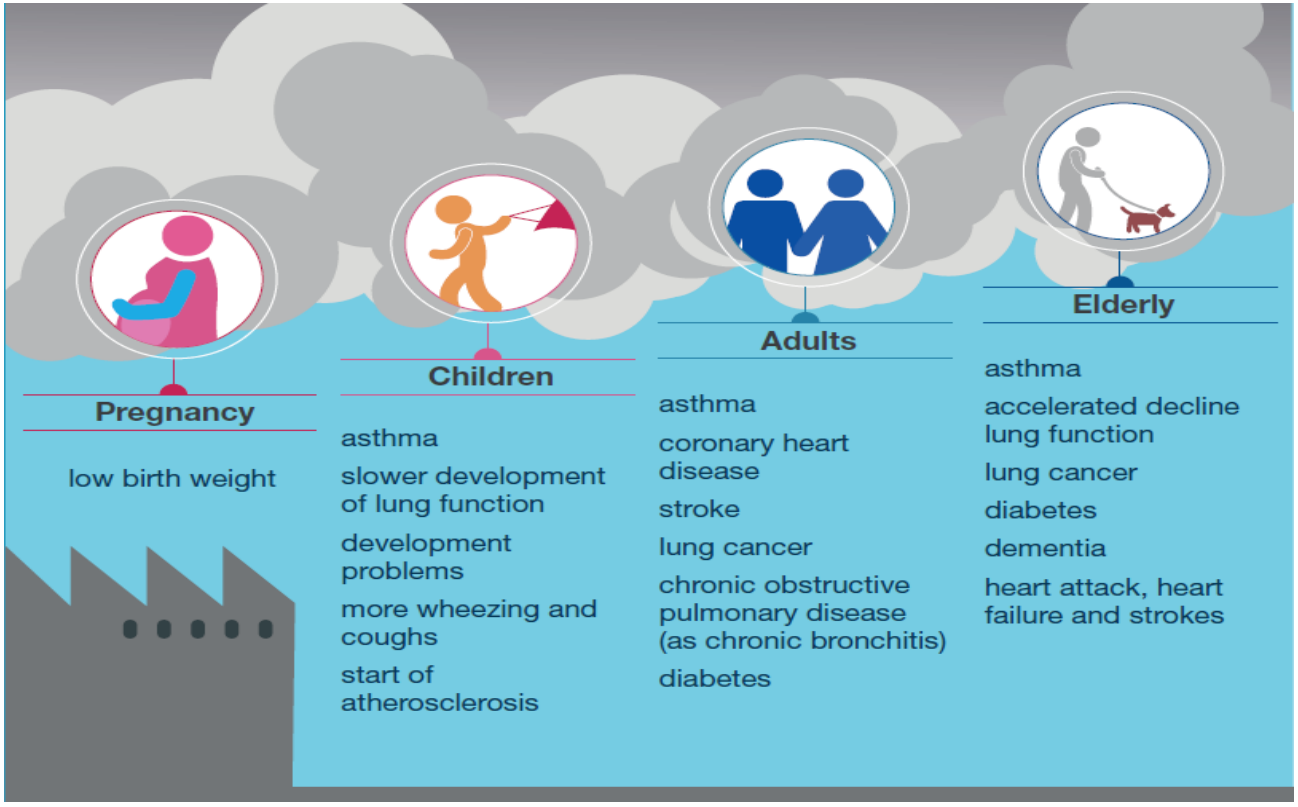
Air pollutants are emitted from a range of man-made and natural sources. Everyday activities such as driving, heating our homes, generating energy, manufacturing goods and farming our land can and do have a detrimental impact upon air quality. Pollutants can travel long distances and combine with each other in the air to create different pollutants. The impact of pollution can depend upon how much is emitted, how harmful the emission is and how it interacts with other substances already in the air.

Concentrations occur where pollutants build up in large quantities in a particular location, for example by a busy road, a large industrial estate or an intensive farming operation. Emissions from distant sources can also build up into high local concentrations of pollution. Exposure to high concentrations is most likely to directly result in adverse impacts, although our health can be affected by both short-term exposure to high pollution levels and by long term exposure to lower levels of pollution. We are exposed to air pollution in all aspects of our lives – at home, when travelling, at school and at work.



What are the health impacts of air pollution?

Poor air quality can affect health at all stages of life. Those most affected are the young and old. In the womb, maternal exposure to air pollution can result in low birth weight, premature birth, still birth or organ damage. In children there is evidence of reduced lung capacity, while impacts in adulthood can include diabetes, heart disease and stroke. In old age, a lifetime of exposure to air pollution can result in reduced life expectancy and an increased risk of disease and lower quality of life at the end of life. There is also emerging evidence for a link between air pollution and an acceleration of the decline in cognitive function. People with pre-existing health conditions – such as asthma or heart disease – are also at greater risk from air pollution.



Why should we be concerned?

Exposure to pollution in the atmosphere has been recognized by Government as the UK's biggest challenge, shortening lifespans and damaging the health and quality of life for many.

Air quality in the UK has improved significantly in recent decades with a decrease in all five major air pollutants. Between 2010 and 2020 emissions of fine particulate matter ($PM_{2.5}$) decreased by 18%; emissions of nitrogen oxides (NOx) decreased by 44%; sulphur dioxide (SO_2) by 70%, non-methane volatile organic compounds (NMVOC) by 14%, and ammonia (NH_3) by 0.2%. The UK Government has set a long term target to achieve a maximum Annual Mean Concentration Target (AMCT) of 10 micrograms of PM2.5 or below per cubic metre (µg/m3). (Environmental Improvement Plan 2023)

Air pollutants are closely linked with emissions of other gases that can cause serious harm to ecosystems and the environment, such as climate change gases. The reduction of air pollutants will be beneficial in terms of human health and the wider environment.

Social equality

Areas with poor air quality are often less affluent areas. These areas are more likely to experience adverse health effects from poor air quality. There are many reasons for this, for example:

- They are more exposed to air pollution by living closer to major roads.
- They are less likely to live close to well-maintained green spaces associated with lower levels of air pollution, increased physical activity, and improved mental wellbeing.

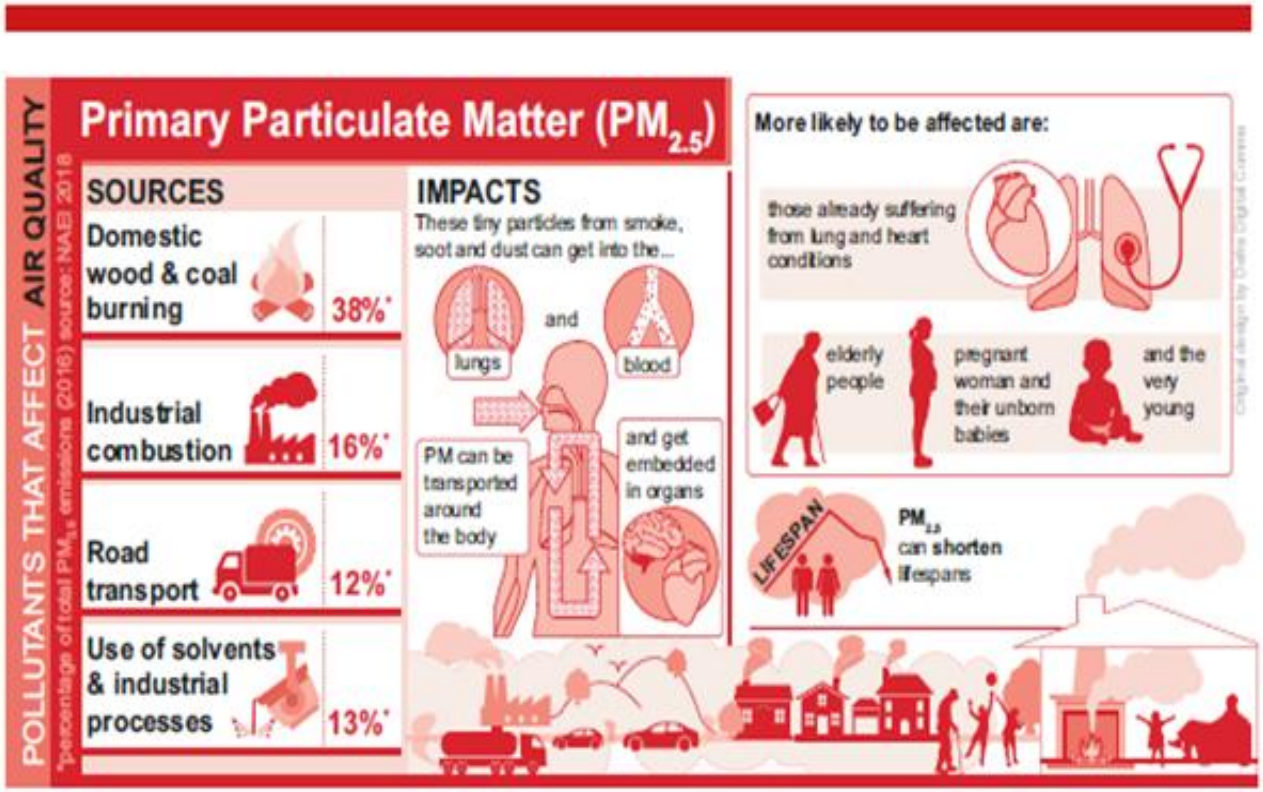
However, air quality can also be poor in areas that are generally considered affluent, such as central London. This is reflected by the overall national distribution of air pollution with highest average levels in Southeast England and lowest levels in the North of England, Scotland, Wales, and Northern Ireland.

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Particulate matter

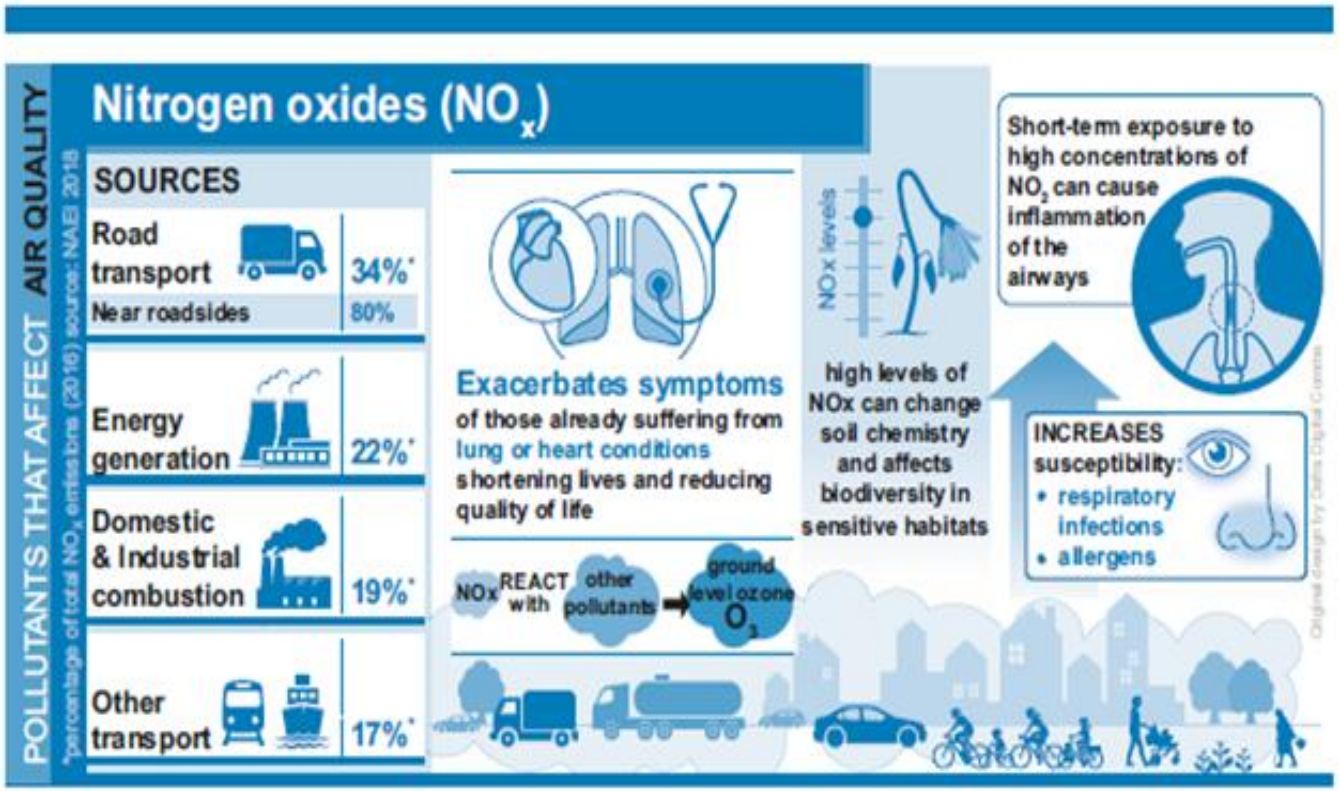
Particulate matter (PM) is a generic term used to describe a complex mixture of solid and liquid particles of differing size, shape and composition. PM is simply everything in the air that isn't gas. Sizes range from a few nanometres in diameter (about the size of a virus) to about 100 micrometres in diameter (about the size of a human hair). These particles include carbon, trace metals and mineral components. $PM_{2.5}$ is less than 2.5um (micrometres) across, is the main type of PM which is regulated and that causes the most harm to health. The principal sources of PM are road transport, combustion processes and industrial processes. The UK has made legally binding commitments to further reduce the amount of $PM_{2.5}$ that we emit into our air by 30% by 2020 and 46% by 2030, based on a 2005 baseline.

The below shows the main sources of PM2.5 on a national level, some of the health impacts and those who are most likely to be affected:



Nitrogen oxides

Nitrogen oxides (NOx) are a group of gases that are mainly created from burning fossil fuels. The principal source in Ashford is from road transport. The below shows the main sources of NOx on a national level, some of the health impacts and those who are most likely to be affected:



Why do we need a Local Air Quality Strategy

The Ashford Borough Council Air Quality Strategy (AQS) collates the actions, measures and interventions that have been agreed as part of other strategies and policies across a wide range of council services (such as Climate Change Strategy and Local Plan). It is good practice for local authorities without an Air Quality Management Area (AQMA) to have this document in place.

The document is designed to be a working document and will be updated as Council actions, plans and policies are completed, amended or developed.

We must continue to take action to reduce air pollution generated from vehicle use, industrial sites, domestic use. This strategy summarises the steps that the Council is taking to secure improvements.

As a result of new development in the borough, there is the potential for an increase in the number of people living and working in the borough. It is important therefore, that we take steps to mitigate the risk that air quality is negatively impacted as a result, by taking a proactive approach to mitigation.

Aims of the strategy

The strategy sets out to:

- Summarise Ashford Borough Council's adopted policies and actions which will contribute to improving air quality.
- Objectives and benefits to be achieved across the duration of the strategy.
- The air quality monitoring plan for Ashford.

The AQS supports and summarises the national air quality objectives, including the new national targets for PM2.5. It is important to reduce, where possible, public exposure to certain pollutants, even where levels are below the air quality objectives, to support a healthier population and reduce premature death. This is particularly important for fine particulate matter, where there are currently no known safe levels of exposure.

By providing a strategy it encompasses the air quality considerations within the Council's policies, procedures, and decisions. This will ensure Ashford is well placed to maintain good air quality and secure future improvements across the borough.

Objectives and benefits to be achieved across the duration of the strategy

- Help to tackle air quality in a holistic way.
- Recognise the need for air quality measures through the planning process.
- Monitor, inspect and report on air quality to ensure it remains within national objectives and requirements.
- Highlight the reasons for tackling poor air quality i.e. links to health, quality of life and climate change.
- Raise the profile of air quality in the Ashford borough.

The Air Quality Monitoring Plan for Ashford

We know air pollution has a significant impact on the health of the borough. Our pollutant concentrations are below the national limit, which is positive. However, even low levels of air pollution can have a detrimental impact on our health. We know we must aim to reduce levels of air pollution as far as possible.

Legislation requires all local authorities to review, inspect and assess the air quality within their area. It also sets limits, known as objectives, for a number of air pollutants. If these objectives are exceeded, the local authority would need to declare an Air Quality Management Area (AQMA) and Air Quality Action Plan (AQAP) describing the actions to address the air quality issue. Monitoring by Ashford Borough Council has not identified exceedances and therefore there is currently no requirement to declare an AQMA or produce an AQAP.

The pollutant of most concern for most local authorities is nitrogen dioxide (NO2). The legislation sets two objectives for NO2, long term (annually) and short term (hourly). Exceedances of the short-term objective are very rare and can be identified by analysing and assessing the data obtained from the long-term annual monitoring.

Long-term monitoring is carried out by the Council through the deployment of diffusion tubes in the borough. These tubes are collected each month and sent to a lab for analysis. The monthly results are assessed and reported in the annual status report (ASR). This report is produced by the local authority and submitted to DEFRA. The Council's ASR can be found on the following link Information and reports about national and local air quality.

Ashford Borough Council is working in conjunction with the Automatic Urban and Rural Network (ARUN) to install a PM 2.5 urban background monitor monitoring site. This is in the early stages of development and should be in operation from 2026/27. Once the station is operational, it will be part of the automatic network and the monitoring results will be publicly available at the UK Air website.

Ashford's Air Quality Strategy

This strategy summarises Ashford Borough Council's policies and actions which will contribute to improving air quality and the air quality monitoring plan for Ashford.

Electric Vehicle Charging

Led by Kent County Council, this project works with 7 Kent local authorities to implement more charging points around Kent. Within the Ashford Borough there are 53 electric vehicle charging points (EVCP). Below are the locations and type of current charging points:

Civic Centre: EVDot x9, Edinburgh Road CP: EVDot x12, Leisure Centre: EVDot x4, Station Rd, Tent: EVDot x4, Vicarage Lane: EVDot x6, Elwick Place: EVDot x6, Victoria Rd CP: EVDot x4, Station Rd, Ash: EVDot x6 and Adley's Yard: EVDot x2.

In recent years there has been a continued expansion of the EVCP network, with the intended outcome of improving air quality for public health benefits and reducing carbon emissions. The council has directly funded these and utilised grants for these charging points, and through the Rural England Prosperity Fund scheme. This helps the council achieve it's intended EV outcomes, make usage more practical and meet expectations for EV ownership on a local and national scale.

No further plans have been made for additional charging points by Ashford Borough Council until a better understanding of usage is ascertained. However, Kent County Council will soon start looking at areas on public roads where points could be placed.

To consider the cumulative impacts of development on air quality, and to encourage EV ownership, Ashford Borough Council requires future new builds to incorporate EV charging points. Each new dwelling with a designated parking space (driveway, carport, or garage), is required to provide at least one electric vehicle charging point. All EV charger points shall be provided to Mode 3 standard (providing up to 7kw) and SMART (enabling Wi-Fi connection). The charging point shall thereafter be retained available, in a working order for the charging of EV. Approved models are shown on the Office for Low Emission Vehicles Home charge Scheme approved ChargePoint model list:

The recent implementation of EVCPs and growing EV ownership has the potential to infer reductions in pollutant concentrations from road traffic. Tracking and mapping of consumption at charging points and nearby NO2 concentrations can provide the council the opportunity to establish trends in air quality and demonstrate quantitative evidence of progress from this measure.

Green Travel

The council's licensing team launched an incentive scheme to encourage electric and hybrid vehicle uptake amongst taxi and private hire fleets in the borough. This scheme effectively incentivised vehicle operators to bring on any recognised ultra-low emission vehicle to the licensed fleet, and in return the applicant would not pay licensing fees on that vehicle for the first three years of licensing - equating to a saving of approximately £1000 per vehicle.

The initial phase of the scheme ran from 2019 until March 2022 with a modest uptake of three new ultra-low emission vehicles coming onto the licensed fleet. The second phase, which is due to run until March 2025, has seen a further two ultra-low emission vehicles bought onto the fleet.

Furthermore, the council intends to explore options to provide fuel efficient driver training for taxi and private hire drivers to reduce vehicle emissions.

A cycling network feasibility study was completed to look to extend the cycling network with contractor Sustrans for a route in central Ashford.

A 'handlebars vs cars' campaign was run promoting cycling as a commuter option alongside recreation. This includes how to get started cycling videos culminating in a life stream race between a car and a bike, to encourage bike usage by the public to and from work. Providing accessible routes as well as promoting it as the most convenient commuter option is crucial to its uptake.

The Council continues to move toward a strong foundation of cycling infrastructure for the future. This is echoed in the council Climate Change Action Plan 2022-24, with Priority 4 being to encourage a shift towards cleaner modes of transport and reduce car dependency. This is set out in objective 4.3: Enable and facilitate a borough wide reduction in transport related emissions, and has been targeted through methods listed below:

- Strengthen anti-idling message promoted in schools through CEO road safety programme and other agencies to improve air quality and reduce emissions.

- Encourage residents to use the Kent Connected for active transport options digital app.

- Improve understanding of future demand for EV charging points, infrastructure capacity and location. Implement a corporate approach to installation and maintenance of EV charging points.

Climate and Energy Strategy 2024-26

The council is currently working on a new Climate and Energy Strategy 2024-26 which will continue to incorporate Air Quality. This will seek to mitigate pollution through climate active policy. It will also have an emphasis on adaptation, living with climate change impacts and recognising the increasing risks to health caused by a combination of increasing temperatures and pollutants.

Climate Action Strategy

In July 2022, the Cabinet endorsed publication of a Climate Change Strategy to outline its ambitions to deliver net zero in its own operations by 2030 and Borough wide by 2050. It recognised that this needed to be done not only by delivering sustainable services but integrating climate considerations into all decision making and supporting behaviour change. Part of this strategy requires a centralised approach whereby all services share accountability to deliver on 8 core priorities.

Priority 1: Raise awareness of climate change air quality to increase understanding and knowledge, empower and enable our partners and residents.

Priority 2: Ensure the council's decision-making processes, strategic documents and procedures contribute to climate change; reducing carbon emissions, positively impacting biodiversity and air quality, and increasing local resilience to climate change.

Priority 3: Reduce reliance on fossil fuels for energy by increasing renewable energy generation and consumption.

Priority 4: Encourage and enable a shift towards cleaner modes of transport and reduce car dependency with co-benefits to air quality and health.

Priority 5: Enable business growth while maximising opportunities to reduce carbon emissions (including specific objective to strengthen anti idling messaging to improve air quality).

Priority 6: Reduce the environmental footprint of buildings through retrofitting existing buildings and improved building standards within new build developments.

Priority 7: Protect, enhance, and increase green space for the benefit of people, wildlife and carbon sequestration.

Priority 8: Reduce waste and continue high levels of recycling.

As outlined above air quality is recognised as a fundamental co-beneficiary of the wider work to mitigate climate change. It is also explicitly referenced in the performance management framework for the strategy – looking at monitoring sites with NO2 below 40 µg/m3 reiterating the agenda's consideration within the wider strategy.

Conclusion

Many everyday activities such as transport, industrial processes, farming, energy generation and domestic heating can all have a detrimental effect on air quality. Air pollution has a direct impact on our natural environment and contributes to the change in our climate. Protecting our natural environment protects our way of life, this is particularly true of air quality.

Legislation requires all local authorities to review, inspect and assess the air quality within their area. It also sets limits, known as objectives, for a number of air pollutants. Pollutant concentrations within the Ashford borough are below the national limit, which is positive. However, even lower levels of air pollution can have a detrimental impact on our health. We know we must aim to reduce levels of air pollution as far as possible.

Improving local air quality is the work and responsibility of a wide range of departments across Ashford Borough Council. The monitoring and actions are compiled and reported as part of the Annual Status Report (ASR). This report is produced by the local authority and submitted to DEFRA.

Appendix 1 Air Quality Objectives

The Air Quality Standards Regulations 2010

Pollutant limit values

Pollutant	Objective	Concentration measured as	Date to be achieved by (and maintained thereafter)
PM_{10}	50 µg/m³ not to be exceeded more than 35 times a year	24 hour mean	31 December 2004
PM_{10}	40 µg/m³	annual mean	31 December 2004
$PM_{2.5}$	20 µg/m³	annual mean	1 January 2020
$PM_{2.5}$	Target of 20% reduction in concentrations at urban background	annual mean	Between 2010 and 2020
Nitrogen dioxide (NO_2)	200 µg/m³ not to be exceeded more than 18 times a year		1 January 2010
Nitrogen dioxide (NO_2)	40 µg/m³		1 January 2010
Ozone (O_3)	100 µg/m³ not to be exceeded more than 10 times a year	8 hour mean	

Appendix 2 Health Effects of Air Pollutants

Pollutant	Health effects at very high levels
Nitrogen Dioxide, Sulphur Dioxide, Ozone	These gases irritate the airways of the lungs, increasing the symptoms of those suffering from lung diseases
Particles	Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of heart and lung diseases
Carbon Monoxide	This gas prevents the uptake of oxygen by the blood. This can lead to a significant reduction in the supply of oxygen to the heart, particularly in people suffering from heart disease