Bath & North East Somerset Council

Improving People's Lives

Clean Air Strategy 2026 – 2031

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Consultation Version May 2026

Executive Summary

Bath and North East Somerset Council's Corporate Strategy is the Council's overarching strategic plan with one overriding purpose – to improve people's lives[1].

Within this strategy, the Council are committed to leading the UK in climate and nature action, building a sustainable future for the authority whilst delivering under key themes to tackle the declared Climate and Ecological Emergency, including improving air quality.

Although air pollution has improved in England over recent decades, it continues to be the biggest environmental risk to public health with there being no safe level of air pollution.[2] Whilst air pollution particularly affects the most vulnerable in society (children, the elderly and those with existing heart and lung conditions), there is also evidence to suggest that despite strengthening environmental policies, the poorest within our society are being unfairly exposed to poor air quality without seeing any improvements.

Bath and North East Somerset Council are therefore committed to delivering ambitious local air quality targets in line with the 2021 World Health Organisation guidelines, not only improving air quality across the authority, but also improving public health.

This strategy introduces the following district-wide local targets for nitrogen dioxide and particulate matter:

Table i – Local target commitment for B&NES

Pollutant	By 2030	By 2035
NO_2	20 µg/m^3	10 µg/m^3
PM_{10}	20 µg/m^3	15 µg/m^3
$PM_{2.5}$	10 µg/m^3	5 µg/m^3

As well as ambitious local air quality targets, this strategy also aims to introduce the following key actions and objectives to allow success to be identified and measured:

1. To continue to mitigate the impact of pollution on health.
2. To continue to undertake work that focuses on reducing inequalities from air quality.
3. To increase community understanding of local air quality issues and commit to communications that promote behaviour change.
4. Develop a more accurate local picture.

A full list of actions can be found in Table 5.

[1] Bath and North East Somerset Council, 2023. Corporate Strategy 2023-2027.
[2] Defra, 2023. Air Quality Strategy: framework for local authority delivery.

Contents

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ASR	Annual Status Report
AQAP	Air Quality Action Plan
AQD	Air Quality Directive
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
BNG	Biodiversity Net Gain
B&NES	Bath and North East Somerset Council
CAZ	Clean Air Zone
HGV	Heavy Goods Vehicle
LGV	Light Goods Vehicle
LPPU	Local Plan Partial Update
JAQU	Joint Air Quality Unit
JLTP	Joint Local Transport Plan
JNZ	Journey to Net Zero
LAQM	Local Air Quality Management
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide - micrograms per cubic metre ($\mu g/m^3$)
NRMM	Non-Road Mobile Machinery
PG	Policy Guidance
PM	Particulate matter
$PM_{2.5}$	Particulate matter with particles less than 2.5 micrometers in diameter
PM_{10}	Particulate matter with particles less than 10 micrometers in diameter
SCA	Smoke Control Area
SPD	Supplementary Planning Document
TG	Technical Guidance
WHO	World Health Organisation

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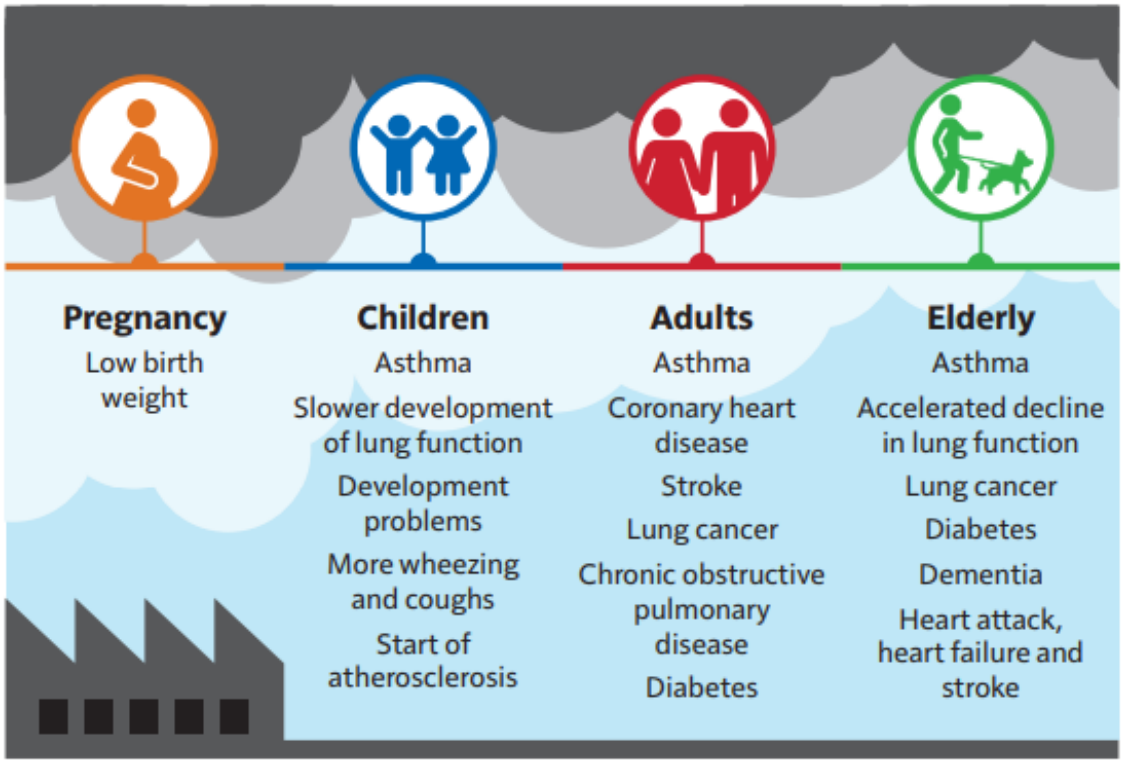
What are Bath and North East Somerset Council's aspirations?

Health Impacts

Although air pollution has improved in England over recent decades, it continues to be the biggest environmental risk to public health with there being no safe level of air pollution.[3] Associated with several adverse health impacts, air pollution is recognised as a contributing factor in the onset of heart disease and cancer.

The health effects of pollutants on public health depend on many variables, including age and sex, however, evidence shows that air pollution does have negative effects on health through the course of life, from pre-birth to old age as demonstrated below in Figure 1.

Figure 1 – The health impacts of air pollution through life (Public Health England, 2018)



Air pollution continues to impose a substantial health burden across the UK, with estimates indicating that its mortality impact is equivalent to 29,000 to 43,000 deaths at typical ages[4], alongside an estimated £1.6 billion cost to the NHS and social care between 2017 and 2025[5]. These harms fall disproportionately on the most vulnerable in society (children, the elderly and those within existing health conditions), yet evidence shows that, despite strengthened environmental policies, the poorest within

[3] Defra, 2023. Air Quality Strategy: framework for local authority delivery.
[4] Defra, 2023. Air quality appraisal: damage cost guidance.
[5] Office for Health Improvement & Disparities, 2022. Air pollution: applying All Our Health

our society remain unfairly exposed to poor air quality and are not experiencing the same improvements as others.

Within the B&NES district, the Council recognises the inequalities in air quality, with poverty, proximity to major roads, and closeness to other significant pollution sources all contributing to heightened exposure and associated health impacts. This strategy therefore seeks to influence decisions that will improve air quality and health, particularly for those communities most affected.

The health risks of air pollution span the course of life. Children are especially vulnerable, with strong evidence linking air pollutant exposure to reduced lung function and childhood asthma exacerbations[6]. Older adults face increased risks of cardiovascular disease, stroke, and cognitive decline, with research showing that long-term exposure to $PM_{2.5}$ raises an individual's relative risk of dementia by 17% for every 10 µg/m³ increase in concentration[7]. These findings reinforce the need for targeted action to protect those most at risk.

The Council also acknowledges the significance of the Clean Air (Human Rights) Bill, known as Ella's Law, named after Ella Adoo-Kissi-Debrah, the first person in the UK to have air pollution officially recorded as a cause of death. The bill aims to prevent avoidable deaths and illnesses caused by polluted air and to establish a legal right to clean air.

By implementing the actions set out in this strategy and assessing their impact on people with and without protected characteristics, the Council aims to support a more equitable society—reducing pressure on health and care services while improving the lives of residents who are most vulnerable to the effects of air pollution[8][9].

The Local Picture and health

The key pollutants impacting air quality in Bath and North East Somerset (B&NES) are particulate matter (PM) and nitrogen dioxide (NO_2), with the UK Royal College of Physicians stating that air pollution affects almost every organ in the human body. It is known that there is no safe level of exposure[10].

Proving the health effects of local-level air pollution is difficult because small populations at a local level mean there are not enough cases to show clear statistical links. However, the national and international evidence (considering confounding factors such as age and income levels) shows that improving air quality can substantially improve public health, and there is no reason to believe this is any different within B&NES[11].

[6] Department for Health and Social Care, 2022. Chief Medical Officer's Annual Report 2022: Air Pollution.
[7] University of Cambridge, 2025. Long-term exposure to Outdoor Air Pollution Linked to Increased Risk of Dementia.
[8] Public Health England, 2017. Air Quality: A Briefing for Directors of Public Health.
[9] Defra, 2006. Air Quality and social deprivation in the UK: an environmental inequalities analysis.
[10] Royal College of Physicians, 2025. A Breath of Fresh Air: Responding to the Health Challenges of Modern Air Pollution.
[11] B&NES, 2025. Climate and Ecological Emergency, Air Quality.

Sources of pollution

There are primary and secondary causes and sources of air pollution, both nationally and locally. Historically, these sources were the result of industrial processes that often involved the combustion of fossil fuels for energy that produced large amounts of smoke and sulphur dioxide. More recently, these sources vary and are often the result of road traffic and domestic burning, particularly where particulate matter and nitrogen oxides are concerned.

As outlined below in Figure 2, industrial processes, such as steel production, make up 38% of particulate matter concentrations in the UK. Road transport contributes 18% and domestic combustion a further 10%.

As demonstrated within Figure 3, road transport accounts for 30% of nitrogen oxide concentrations within the UK and is the single largest contributor. Diesel vehicles are particularly responsible for this contribution. This is seen not only nationally but locally within B&NES, as demonstrated within Figure 4.

Figure 2 – National sources of particulate matter (Defra, 2025)

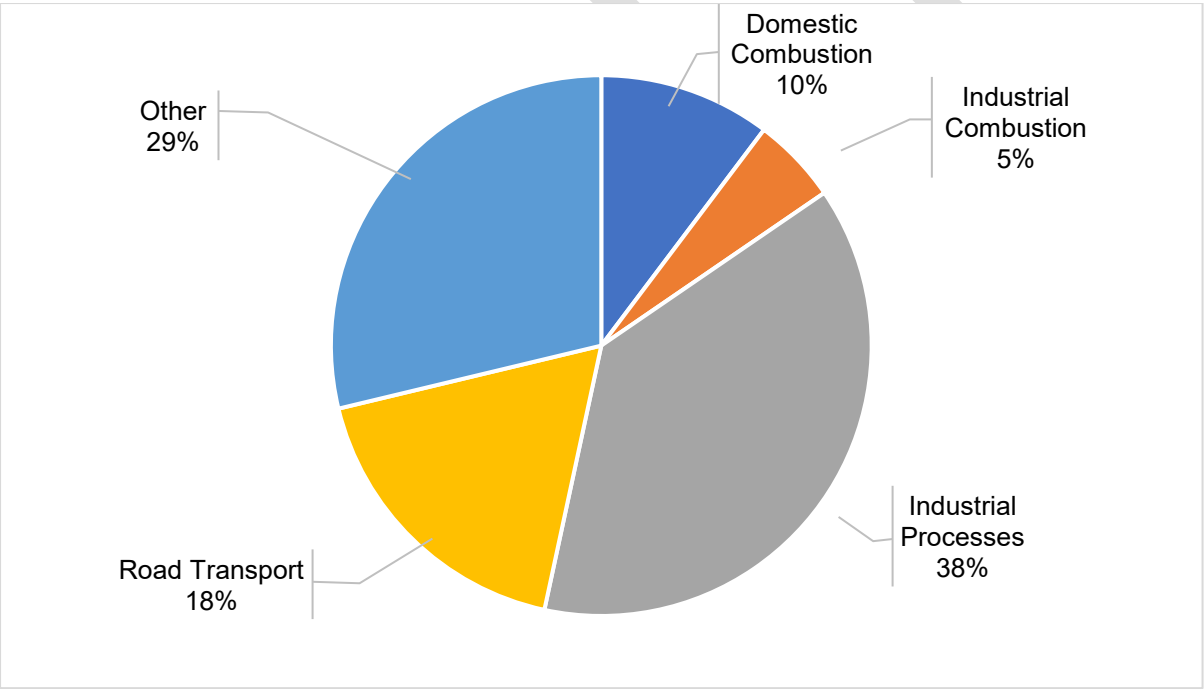
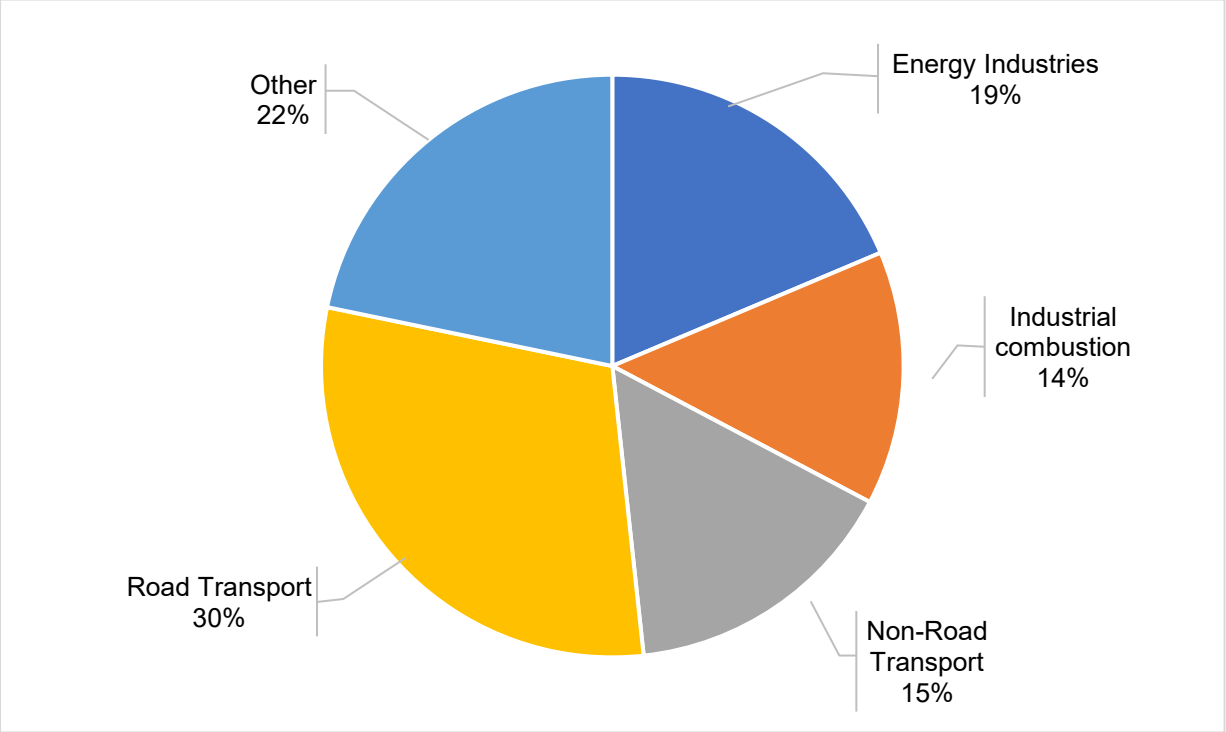


Figure 3 – National sources of nitrogen oxide (Defra, 2025)



Nitrogen dioxide

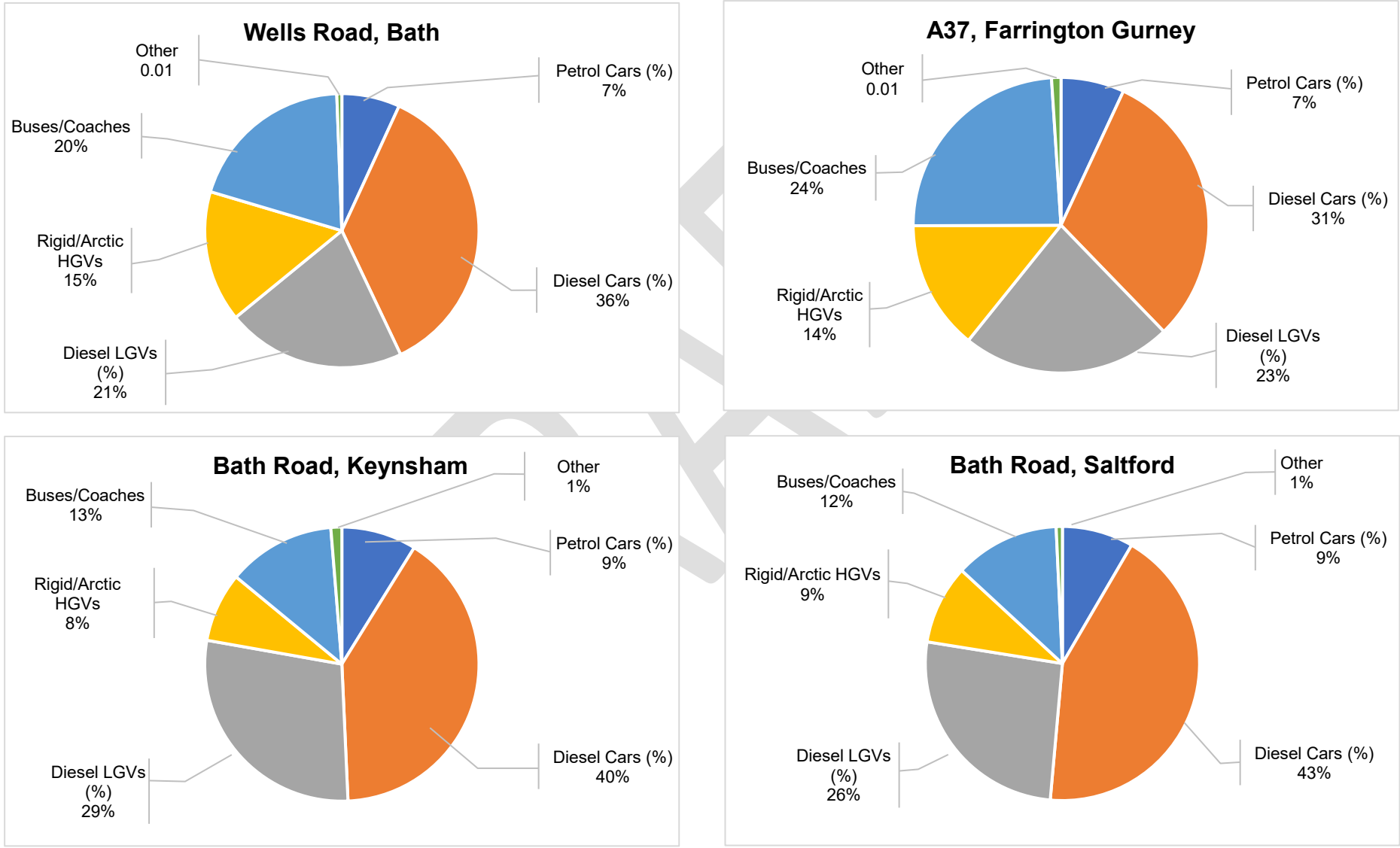
Nitrogen oxides (NO_x) are a group of gases that are mainly created from burning fossil fuels. When the gas reacts with others in the air, nitrogen dioxide (NO_2) is created.

Unlike particulate matter, NO_2 is a much more localised pollutant, often arising in congested or high traffic areas, as seen within some areas of B&NES. As NO_2 is one the main pollutants within the authority area, the main approach to reducing concentrations has been via traffic and transport improvement measures. These have included the introduction of a class C charging Clean Air Zone, but also non-charging measures such as targeted information campaigns for the most vulnerable residents within Temple Cloud and Farrington Gurney.

However, despite this, road traffic continues to be the biggest source of NO_x across the authority, and as demonstrated below in Figure 4, this is largely the result of diesel vehicles.

Figure 4 shows the modelled emissions contributions from four typical roads across the Bath and North East Somerset district; these are within Bath, Farrington Gurney, Saltford and Keynsham. Diesel cars are the largest emitter of NO_x emissions at each location, with diesel Light Goods Vehicles (LGVs) close behind.

Figure 4 – NOx from road traffic within Bath and North East Somerset



Note: The fleet composition projections above were modelled using data from the National Atmospheric Emissions Inventory and use standard fleet composition, not local specific data. Therefore, increased compliance as a result of the Clean Air Zone is not considered in these national models.

Particulate Matter

A further pollutant present within B&NES is particulate matter (PM). It is made up of tiny pieces of material from a variety of sources including for example smoke from fires, exhaust fumes, smoking, or dust from vehicle brake pads. These particles are too small to be seen and can be breathed in without being noticed.

Whilst some PM in the atmosphere originates from local sources within B&NES (e.g., wood burning, transport and agriculture), there is also a contribution from national and even international sources that aren't within the local authority's control. This is more apparent for $PM_{2.5}$ as the finer material can travel a greater distance.

Within the UK, a small proportion of PM concentrations come from naturally occurring sources such as pollen and sea salt. With one third coming from overseas, the remaining proportion is generated from anthropogenic sources within the UK, such as wood burning, fossil fuels, agriculture, and industrial processes. Additionally, a small proportion of PM within the UK is generated at the roadside, often from brake and tyre wear[12].

As seen within figures 5 and 6, national concentrations of both PM_{10} and $PM_{2.5}$ have been steadily decreasing since 1992. Urban background sites typically monitor locations in a built-up urban area that are away from significant, nearby pollution sources such as busy roads or industrial facilities. Urban background concentrations of particulates have decreased over time. This may be linked to changes in the fuels used by energy generation (decline in coal burning), as well as decreases from road transport sources due to the introduction of stricter vehicle emission standards and increased electric vehicle uptake.

The contribution from roadside sources has also reduced over this period. In 2024, roadside sources contributed just 2.8 $\mu g/m^3$ of total PM_{10} concentrations, with the remainder coming from background sources. Of $PM_{2.5}$ the contribution is just 0.38 $\mu g/m^3$ from roadside sources. Therefore, with such a large percentage of PM pollution attributed to sources other than road traffic, measures targeted solely at road traffic would be ineffective in addressing the issue comprehensively.

As a local authority, understanding the local contributions of PM within B&NES is difficult due to the transboundary nature of the pollutant. Whilst some sources of the pollutant will be natural e.g. pollen and dust from soil, some will also be human e.g. particles from combustion, agricultural or industrial processes.

To allow B&NES to better understand the sources of particulate pollution within the district we are committed to carrying out additional monitoring. We will also work with residents, businesses and visitors to help them understand and reduce their pollution impact.

[12] Defra, 2025. Emissions of air pollutants in the UK – Particulate matter (PM_{10} and $PM_{2.5}$)

Figure 5 – National PM_{10} concentrations within the United Kingdom (Defra, 2025)

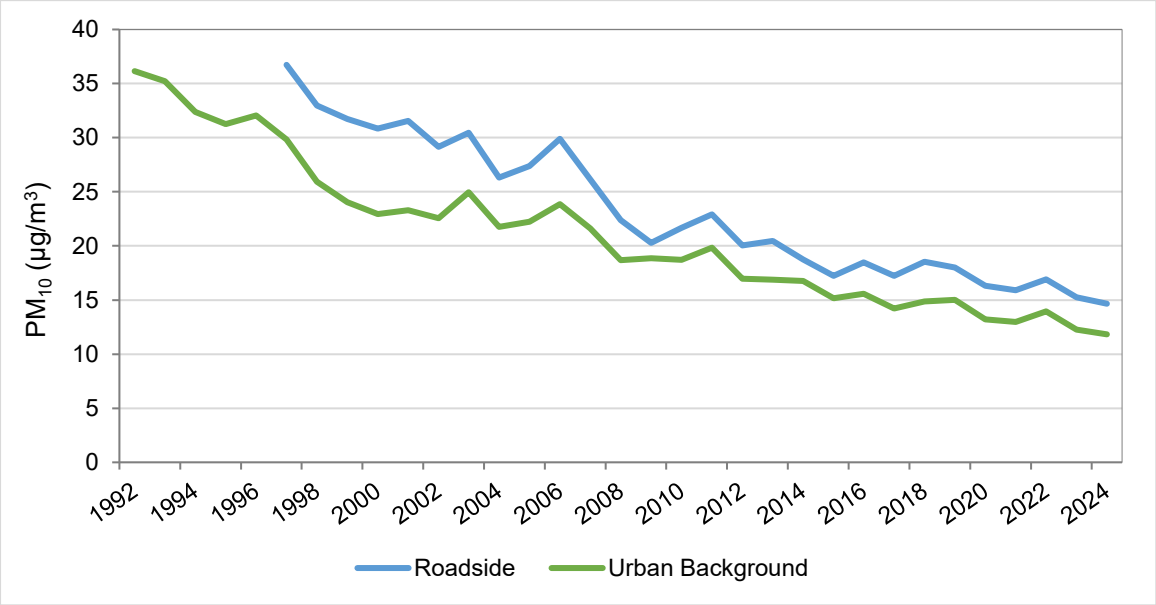
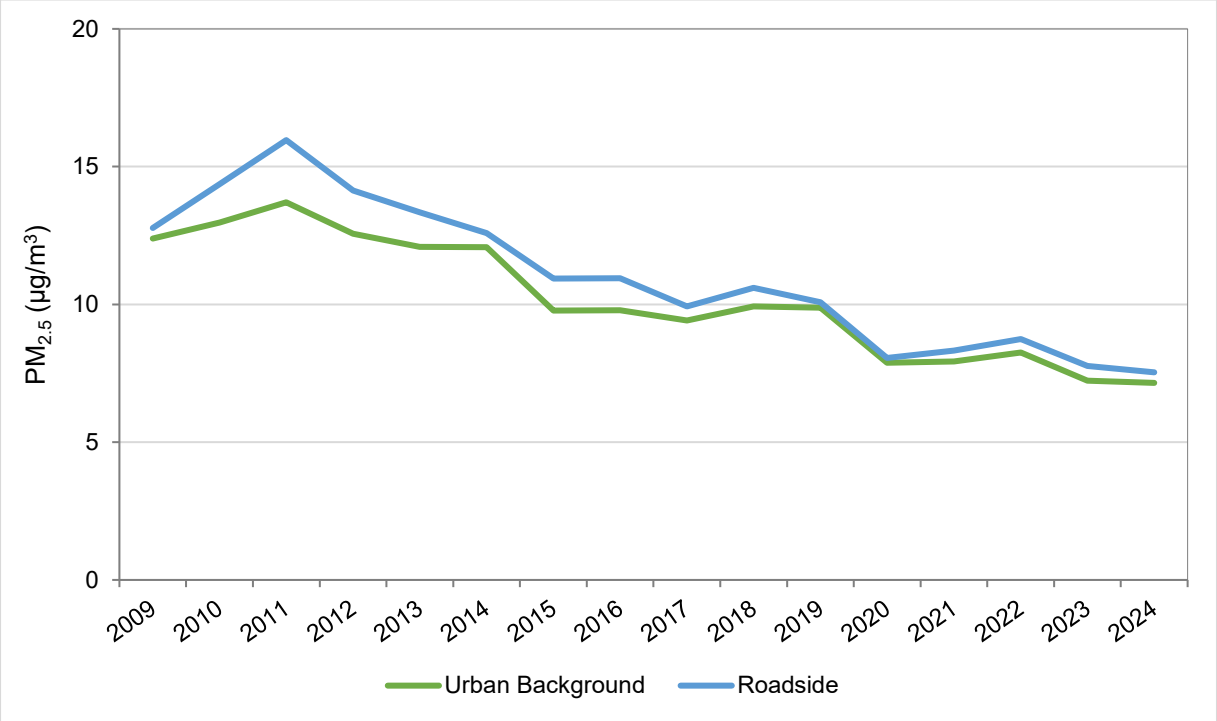


Figure 6 – National $PM_{2.5}$ concentrations within the United Kingdom (Defra, 2025)



Regulation

Local authorities have a duty to address air quality exceedances under the Local Air Quality Management (LAQM) framework, as set out in part IV of the Environment Act 1995, and as amended by the Environment Act 2021. However, it is acknowledged that there is no safe level of pollution. It is widely recognised that identifying additional preventative action that can be taken through a local Air Quality Strategy can be effective in delivering cleaner air for communities, and in reducing health inequalities.

B&NES Council is committed to achieving better health outcomes for our communities through the adoption of more ambitious targets across the whole district.

This Clean Air Strategy, which will be further developed in collaboration with key stakeholders, aims to provide a framework to support delivery of greater local air quality improvements within Bath and North East Somerset. It details the authority's ambition in this area, and sets out policies requiring development, alongside regulatory control mechanisms that can be used to ensure compliance. To highlight the importance of joint working across key Council teams this strategy will look to introduce an Air Quality Steering Group, ensuring close collaboration with partners allowing a coordinated and effective approach.

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Setting the ambition for B&NES

Air pollution within B&NES

Bath and North East Somerset is a mainly rural district in terms of area. Bath, as the major urban area, is situated at the bottom of a valley and surrounded by hills. Smaller towns include Keynsham, Radstock and Midsomer Norton. The main source of NO_2 is road traffic, with levels exacerbated in Bath by the topography. Pollutants are further hindered from rapidly dispersing as the city's main roads are flanked by tall buildings.

Across B&NES, 3 Air Quality Management Areas (AMQAs) are currently declared for nitrogen dioxide (NO_2) at the following locations:

- The major road network within Bath
- Section of the A37 in Temple Cloud
- Section of the A37 in Farrington Gurney

In addition to the 3 AQMAs identified above and following a Ministerial Direction in 2017 to improve air quality in the shortest possible time, a class C charging Clean Air Zone (CAZ) was introduced in Bath during 2021. The CAZ levies a daily charge for use of higher polluting, non-compliant vehicles in the city, with a primary aim to reduce NO_2 to within legal limits for the annual average limit value. (There is no exceedance of the hourly limit.) Additional information can be found here: https://www.bathnes.gov.uk/baths-clean-air-zone

The AQMAs which had been in place in Keynsham and Saltford were revoked in 2025 following several years of compliance with legal limit values. Existing AQMAs may in future be reviewed and revoked, in line with legislation, wherever NO_2 concentrations are showing continuing compliance with the national objectives. NO_2 concentrations will continue to be monitored across the district, and if required, further monitoring can be installed.

In addition to the above, the City of Bath is a designated Smoke Control Area (SCA) which prohibits residents from burning smoky fuels such as wood and coal in an open fireplace or a conventional, non-approved wood burning or multi-fuel stove. Where residents wish to burn wood, an approved multi-fuel or wood burning stove must be used. The Environment Act 2021 has introduced new enforcement provisions that apply to buildings that emit smoke from a chimney within a Smoke Control Area.

Additional information can be found here: https://www.bathnes.gov.uk/indoor-fires-and-wood-burning.

Monitoring within B&NES

Within B&NES, three methods of measuring concentrations of NO_2 and particulate matter are used. These are outlined within Table 1, below.

Table 1 – Monitoring methods used within B&NES

Monitoring method	Description
Continuous permanent analysers	Within Bath, two locations have permanent continuous sites monitoring hourly concentrations of NO_2. These facilities also monitor PM_{10}, and one of them monitors $PM_{2.5}$.
Indicative analysers	In addition to the permanent continuous analysers, B&NES has three indicative automatic analysers that have a variety of uses: they monitor NO_2, PM_{10} and $PM_{2.5}$. One monitor is permanently co-located (and mains powered) with a set of traffic lights. When NO_2 concentrations exceed the threshold, the traffic light cycle is altered in real time. A further 2 mobile analysers (solar powered) are also used across the district.
Diffusion Tubes	As of the end of 2024, B&NES had 167 diffusion tube sites located across the authority. These provide monthly concentrations of NO_2 and are used to calculate an annual average concentration for each individual site.

The monitoring methods identified above include both short-term and long-term monitoring devices. Some diffusion tube sites, along with the automatic analysers, have been in place for many years and now act as a baseline for change, particularly where NO_2 is concerned.

One of the continuous analysers sited along the A4 London Road is affiliated with the Automatic Urban and Rural Network. This network is the UK's largest automatic monitoring network and is the main network used for compliance reporting against the Ambient Air Quality Directives.

Whilst the number of automatic analysers and indicative mobile analysers remains largely consistent, the number of diffusion tubes varies month on month as locations are removed and added where additional requests have been made.

Pollution levels at both recent and historic monitoring locations can be viewed using the following link: https://www.bathnes.gov.uk/air-quality-monitoring-network.

Data from the continuous sites within Bath can be downloaded via the following link: https://www.ukairquality.net/.

Additionally, annual average concentrations of these monitoring methods for each calendar year are available within the Annual Status Reports. These are available via the following link: https://www.bathnes.gov.uk/document-and-policy-library/annual-air-quality-reports.

Legislation

This Clean Air Strategy will be directed towards three key pollutants that are present within B&NES: NO_2, PM_{10} and $PM_{2.5}$, considering how these align with UK, European and World Health Organisation guidelines. These targets are outlined in Table 2 below, with some limit values varying across the three key policies.

Table 2 – UK, European and WHO Air Quality Annual Targets.

	UK Targets	European Targets	World Health Organisation Guidelines
NO_2	40 µg/m^3	20 µg/m^3	10 µg/m^3
PM_{10}	40 µg/m^3	20 µg/m^3	15 µg/m^3
$PM_{2.5}$	20 µg/m^3	10 µg/m^3	5 µg/m^3

European Targets

The 2008 Ambient Air Quality Directive (2008/50/EC) is an EU Directive that had previously been enshrined into UK law; however, the 2024 Ambient Air Quality Directive (2024/2881) was introduced after the UK's departure from the European Union.

The 2024 Ambient Air Quality Directive (2024/2881) sets limits for key pollutants for ambient air outdoors, whilst outlining the basic principles as to how air quality should be assessed and managed. These are legally binding limit values for concentrations of major pollutants that impact public health, as outlined above; however, they have not been adopted in the UK following the country's departure from the European Union.

UK Targets

In fulfilling the requirements of Local Air Quality Management as set out in Part IV of the Environment Act 1995, as amended by the Environment Act 2021, the LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas. Within the UK, the Air Quality Standards Regulations 2010, as amended by The Air Quality Standards (Amendment) Regulations 2016, regulates concentrations of key pollutants in outdoor air[13], whilst the Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020[14], details the $PM_{2.5}$ target as presented in Table 2, above.

Where an exceedance of the objective is considered likely, the local authority must declare an Air Quality Management Area and prepare an Air Quality Action Plan setting out the measures it intends to put in place in order to achieve and maintain the objectives. An Annual Status Report must then be published annually showing the

[13] Defra, 2024. UK Air Quality Policy Context.
[14] The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020.

strategies employed by the Council to improve air quality and any progress that has been made.

The Environment Act 2021 introduced new environmental targets of $PM_{2.5}$. However, these targets are to be measured at a national level and not a local authority level[15].

Detailed information on B&NES' performance in relation to the national targets can be found via the following link: https://www.bathnes.gov.uk/nitrogen-dioxide-monitoring-data.

World Health Organisation Guidelines

The World Health Organisation (WHO) adopts Air Quality Guidelines detailing recommended air pollution limits, and the UK Government considers whether these should be adopted as national, legally binding targets. The WHO's guidelines are intended to inform the setting of air quality standards, but are not ready-made targets for adoption, because it is vital that nationally adopted targets are stretching but achievable, as well as appropriate to national circumstances.

Updated WHO guidelines were published in 2021 to reduce the limits for some pollutants, including NO_2 and $PM_{2.5}$. As outlined in Table 2, above, these new guidelines are much more ambitious than either the European or UK targets. To help governing bodies and local authorities meet these guidelines the WHO have additionally published interim targets, as outlined below in Table 3.

Table 3 – the annual 2021 WHO air quality guideline (AQG) for air pollutants, as well as the correlating interim targets (IT).

	1st IT	2nd IT	3rd IT	4th IT	AQ Guideline	UK
NO_2	40	30	20	-	10	40
PM_{10}	70	50	30	20	15	40
$PM_{2.5}$	35	25	15	10	5	10

The WHO's interim targets for pollutants are higher than their air quality guidelines but are intended to provide an achievable pathway that can be used by nations and local authorities to work towards the guideline targets over a realistic timeframe.

These interim targets have helped inform the local targets for B&NES, as presented below.

[15] The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.

Local Targets for B&NES

Whilst the aim for B&NES over recent years has been to achieve compliance with the Government's national objectives, the Council is aware of the ambitious WHO guidelines and recognises the serious public health impacts of air pollution. The Council has previously indicated its ambition to introduce local, aspirational air quality targets, to demonstrate a commitment to further protecting public health, for example in the Cabinet paper of July 2022. Formal adoption of local targets is a more ambitious step, underlining the Council's intention that pollution reduction should become a consideration in all decision making. This will ensure that the benefits to air quality achieved in recent years cannot be reversed, and that progress continues towards the ambitious WHO targets.

With reference to the interim targets and the forecast data above, B&NES intends to commit to the following targets for PM and NO_2.

Table 4 – Local Target Commitment for B&NES

Pollutant	By 2030	By 2035
NO_2	20 µg/m^3	10 µg/m^3
PM_{10}	20 µg/m^3	15 µg/m^3
$PM_{2.5}$	10 µg/m^3	5 µg/m^3

Whilst NO_2 is largely a localised pollutant over which we have some control, the sources of PM are often outside our control as a local authority. Further work is required to identify the sources of PM in B&NES, and the Council commits to continuing to explore the source apportionment of PM across the district. This will involve working with partners in industries which may be contributing to PM concentrations within B&NES, for example, the agricultural and construction sectors.

Note that these targets, are for ambient outdoor pollutants and will make use of the same exposure criteria and monitoring techniques as used to measure compliance with the national/UK targets e.g. exposure at sensitive receptors such as the building facades of homes, care homes and schools.

Measuring and achieving the targets

The proposed targets outlined above in Table 4 are realistic but also ambitious for B&NES. By using tools and technical guidance provided by Defra, B&NES have been able to look at their previous monitored concentrations of pollutants and forecast into the future, allowing informed decisions to be made around the development of future local air quality targets.

Figures 7, 8 and 9 below look specifically at NO_2, and forecasting suggests that in 2030, just 11 sites would exceed the proposed local target of 20 µg/m^3. However, as figures 8 and 9 show, NO_2 concentrations at these sites are predicted to continuously decrease even after 2030, with the majority of sites no more than 2 µg/m^3 over the proposed target in 2023. This continuous decrease considers the natural upgrade of

fleet nationally, with those vehicles most polluting being replaced overtime. Although not considered within the forecasting, it is anticipated that Bath and Bristol's CAZ's will have accelerated the fleet upgrade regionally within the West. Therefore, this local target is somewhat stretching for B&NES but thought to be achievable.

A map of all diffusion tube locations listed below and their concentrations for the last 5-years can be viewed at the following link: https://www.bathnes.gov.uk/nitrogen-dioxide-monitoring-data

Figure 7 – the number of NO_2 diffusion tubes that are forecast to exceed the proposed 2030 local target of 20 µg/m^3

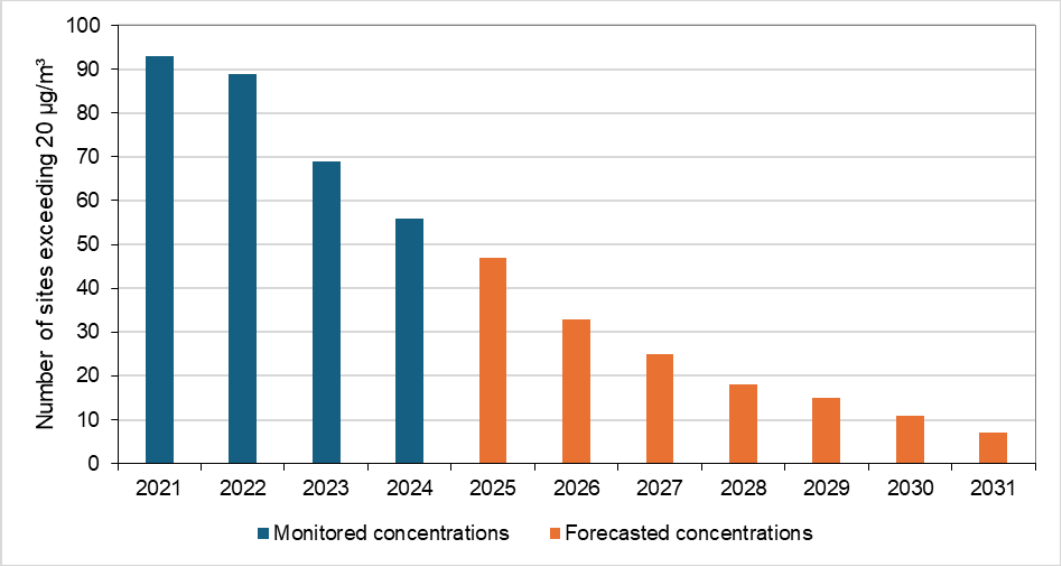


Figure 8 – sites within Bath that are due to exceed the proposed 2030 target for NO_2 of 20 µg/m^3. Note that concentrations between 2021 and 2024 are monitored, and concentrations from 2025 onwards are forecast.

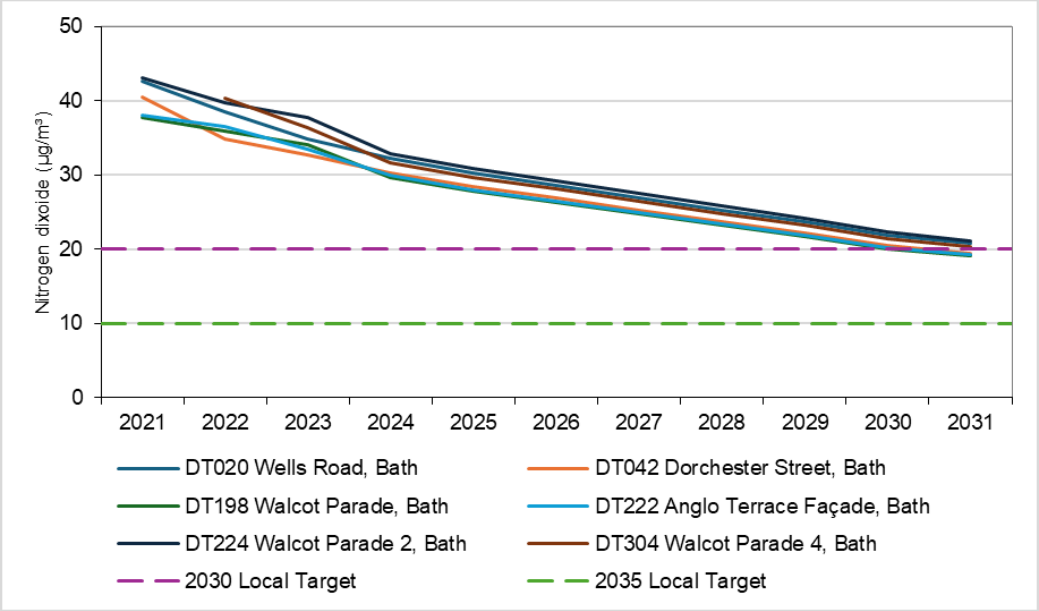
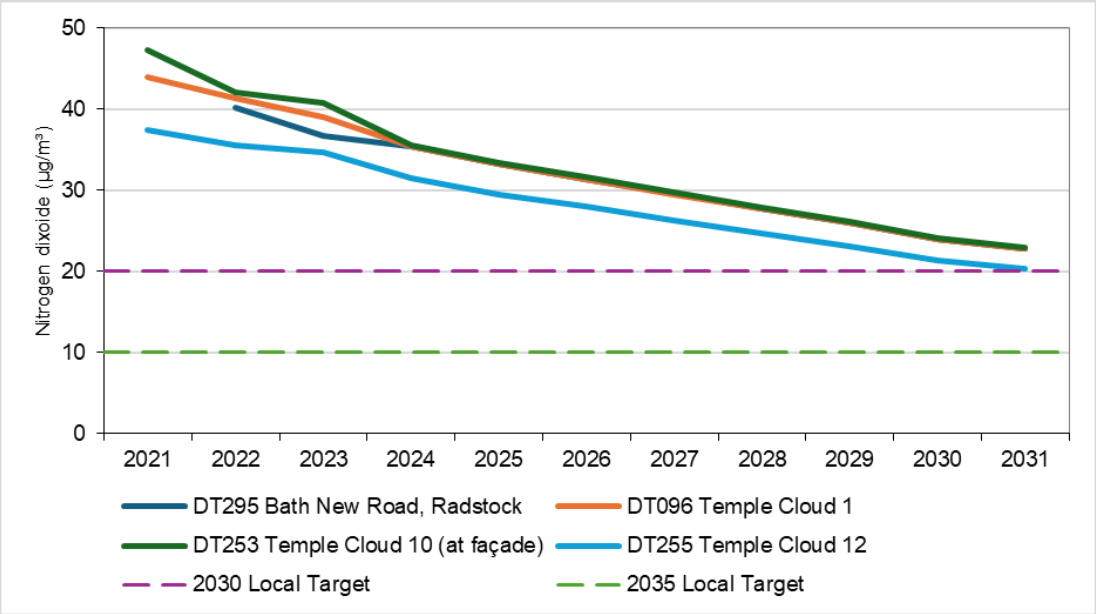
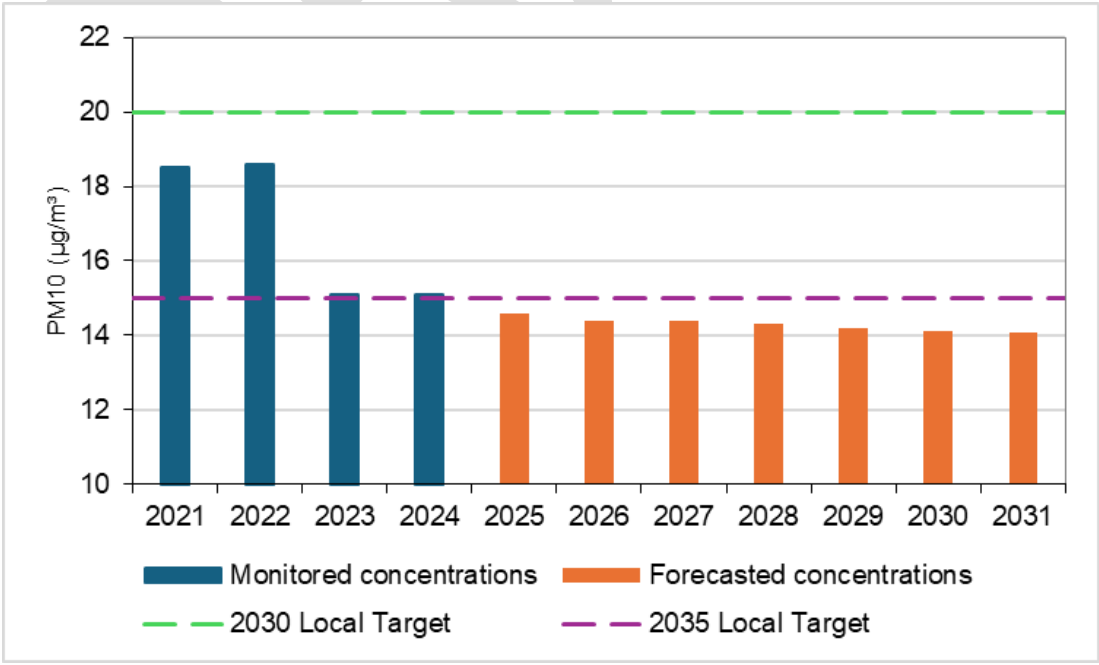


Figure 9 – sites within the wider B&NES area that are due to exceed the proposed 2030 target for NO_2 of 20 µg/m^3. Note that concentrations between 2021 and 2024 are monitored, and concentrations from 2025 onwards are forecast.



As detailed above, understanding the source of PM within a local authority can be difficult due to the transboundary nature of the pollutant. However, forecasting suggests that the local targets for PM_{10} are realistic and achievable, as detailed in figure 10 below.

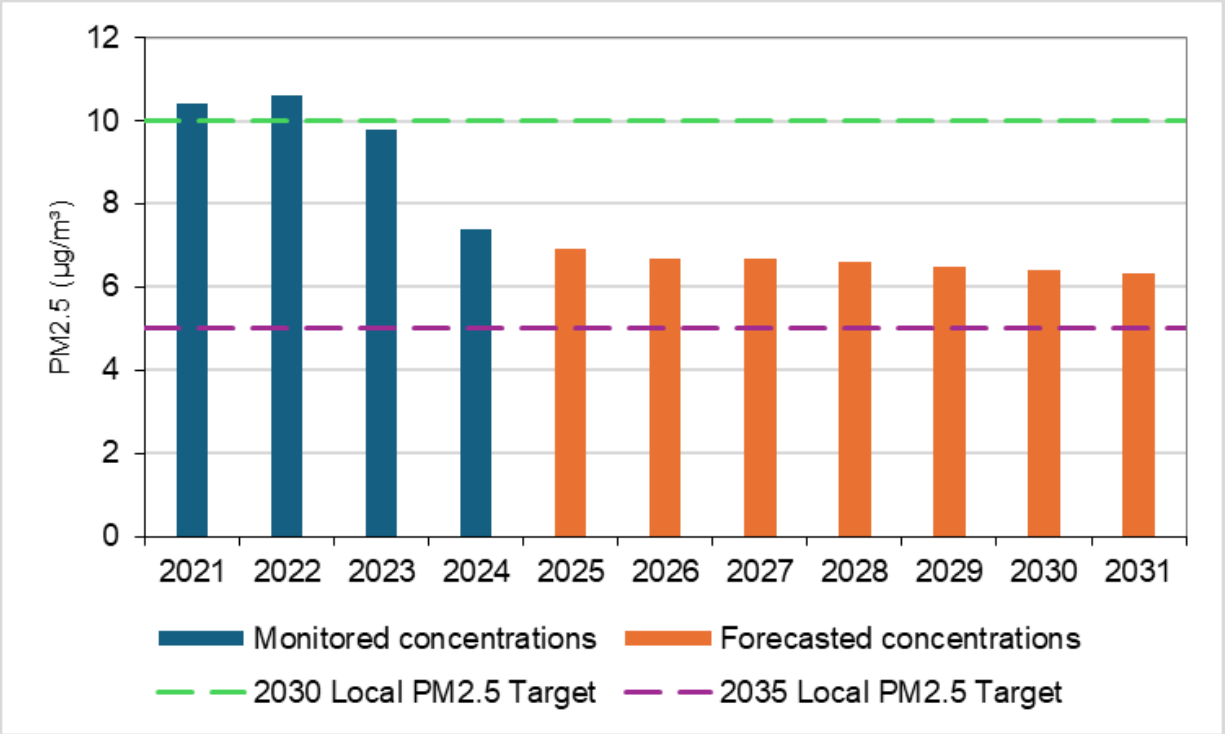
Figure 10 – monitored and forecasted concentrations of PM_{10} compared to both the 2030 and 2035 local targets.



The large decline in concentrations between 2022 and 2023, as seen in Figure 10, are difficult to interpret due to the nature of PM. However, other local authorities within the South West of England also saw similar trends, suggesting that the influence within 2023 was much wider than within B&NES, e.g. PM bought in from overseas. We acknowledge that we require a strong understanding of PM within the district, and it is hoped that additional source apportionment work will allow us to understand the local vs national influence.

As presented below in figure 11, the local targets for $PM_{2.5}$ are a lot more ambitious, more specifically for the 2035 target.

Figure 11 – monitored and forecasted concentrations of $PM_{2.5}$ compared to both the 2030 and 2035 local targets.



The large decline in $PM_{2.5}$ concentrations between 2023 and 2024 is likely the result of sources outside of B&NES as other local authorities within the South West of England experienced similar trends. However, undertaking additional source apportionment work will allow us to understand what local sources remain, and how we may tackle them.

By setting a more ambitious 2035 target for $PM_{2.5}$ as policy, B&NES intends to undertake investigations into source apportionment, to develop a better understanding of contributions to the pollutant. This will then allow measures to be developed over time, with the objective of compliance with this target by 2035.

Applying appropriate regulatory control

To apply appropriate regulatory control across the authority, B&NES has several key regimes and schemes in place which positively influence air quality.

Local Air Quality Management

Through the LAQM process, local authorities are obliged to regularly review and assess air quality in their areas, and to determine whether the air quality objectives are likely to be achieved. Where elevated concentrations of pollutants are measured, local authorities have a legal duty to address this.

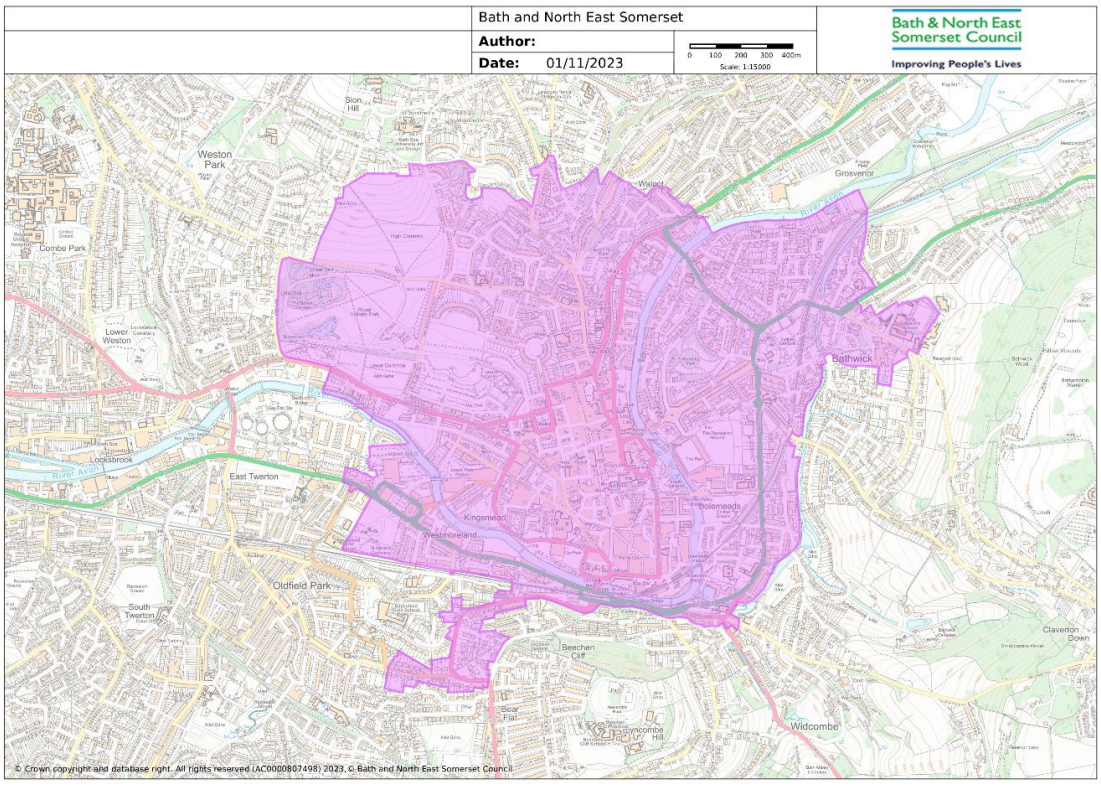
Where the objectives are not being met, an Air Quality Management Area (AQMA) must be declared, and an Air Quality Action Plan (AQAP) published detailing the pollution reduction measures to be put in place and by when measures will be taken.

The Environment Act 2021 amended the Environment Act 1995 to strengthen the LAQM framework to enable greater local action on air pollution[16].

Clean Air Zone

Following a Ministerial Direction in 2019 to improve air quality in the shortest possible time, a class C charging Clean Air Zone (CAZ) was introduced in Bath during 2021 with a primary aim to reduce NO_2 to within legal limits. As presented below in Figure 12, the CAZ covers the city centre of Bath.

Figure 12 – A map of the Clean Air Zone boundary



[16] Defra, 2022. Local Air Quality Management Policy Guidance.

Prior to the launch of the CAZ, extensive modelling and technical work found that a charging zone for traffic was the only measure that could achieve compliance within the required time frame. A CAZ works by deterring higher emission vehicles from driving in the most polluted areas of the city by levying a charge, and by providing support with more rapid replacement of more polluting vehicles for cleaner, compliant ones than would otherwise naturally occur. In addition to supporting compliance with legally binding air quality objectives, the Council views the CAZ as a key measure supporting improvements in public health and reductions in health inequalities. A reduction in air pollution also benefits the natural environment.

Statutory Nuisance

Under the Environmental Protection Act 1990, B&NES has a duty to investigate complaints about nuisance and act where staff are satisfied the matter constitutes a Statutory Nuisance.

Statutory Nuisance is generally defined as a nuisance that is significant and has an unreasonable effect on a person's enjoyment of their property. Each case needs to be assessed and judged on its own merit, and there is no fixed threshold for an action/inaction to be classed as Statutory Nuisance.

Smoke and dust nuisances are often linked with odour complaints, such as smoke regularly occurring from bonfires or chimneys, which can result in elevated levels of air pollution. The Council discourages burning as a form of waste removal. Instead, it should be recycled, reused or disposed of at a waste recycling centre where possible. More information can be found here: https://www.bathnes.gov.uk/how-prevent-bonfire-or-smoke-nuisance.

If the Council receives a bonfire complaint, it can be investigated under the Environment Protection Act 1990 where the smoke or odour produced unreasonably interferes with people's enjoyment of their property or is prejudicial to health. The following link can be used to report a bonfire or smoke nuisance in the B&NES area: https://www.bathnes.gov.uk/form/report-a-bonfire.

Additional information can be found here: https://www.bathnes.gov.uk/report-bonfire-or-smoke-nuisance.

Additionally, under the Clean Air Act 1993, it is against the law to produce and release dark smoke from industrial premises (except in circumstances allowed and limited by the Environmental Permitting Regulations outlined below).

Environmental Permitting

Environmental Permitting is a regime to regulate industrial processes in order to achieve statutory environmental targets and outcomes, such as improving air quality.

Local authorities regulate about 80 different types of installation that are categorised as 'Part B' or Part A2' processes. The list of permitted businesses can be viewed here: https://www.bathnes.gov.uk/public-registers.

The Environment Agency regulates the often larger and more complex 'Part 1A' installations. Businesses which operate any of these Part A or Part B processes must

have a permit. They are subject to conditions such as emission limits that must be achieved. They also require the use of best available techniques (BAT) in the operation of facilities.

Smoke Control Areas

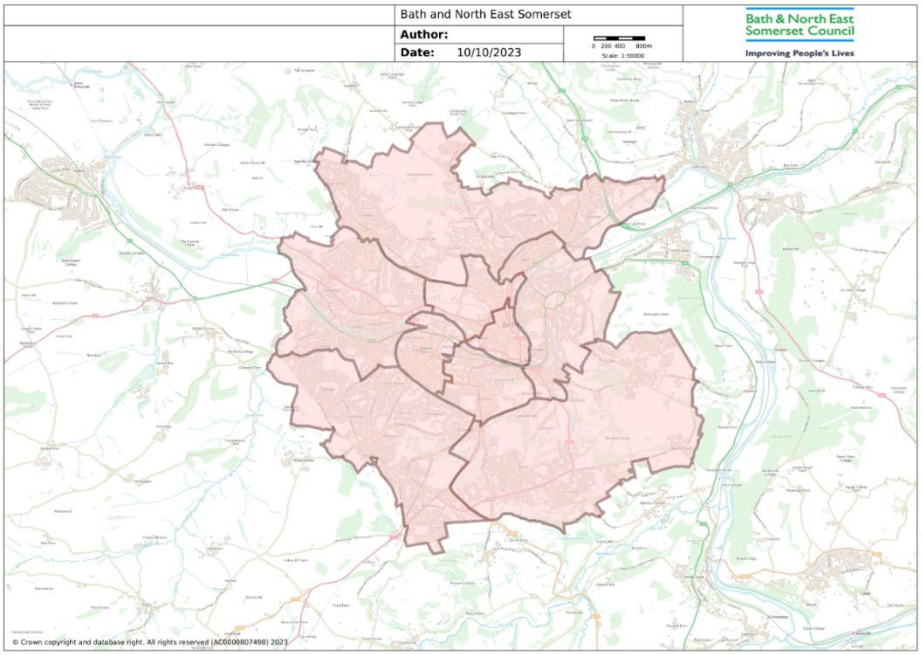
The City of Bath, covering approximately 29km^2 of the district, is a designated Smoke Control Area (SCA) in which residents are prohibited from burning smoky fuels such as wood and coal in an open fireplace or a conventional non-approved wood burning or multi-fuel stove. Where residents wish to burn wood, they must use an approved multi-fuel or wood burning stove. They can only burn approved smokeless fuels in an open fireplace.

Under Schedule A1 of the Clean Air Act (as amended by the Environment Act 2021), new enforcement provisions were introduced applying to buildings that emit smoke from a chimney within a SCA. As the SCA designation only covers chimney smoke, bonfires are not included in this legislation. However, further information and guidance surrounding domestic burning within a SCA can be found via the following link: https://www.bathnes.gov.uk/indoor-fires-and-wood-burning

At this time, moored vessels are not included within Bath's Smoke Control Area, however, individuals are encouraged to use smokeless fuels and/or compliant stoves where possible.

Burning wood or other solid fuels at home, even where compliant fuels and stoves are used can emit dangerous concentrations of PM, with impacts upon air quality and health both inside and outside your home. National guidance around the impacts of domestic burning on health and the environment can be viewed at the following: https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution

Figure 13 – A map showing the Smoke Control Areas within Bath.



Planning and air quality

Consideration of air quality issues at the plan-making stage means a strategic approach is taken to air quality. Plans are made to mitigate air pollution associated with proposed developments, which can influence air quality in several ways. Therefore, it is vital that planning decisions within the authority consider air quality management areas, Clean Air Zones, and other areas of sensitivity[17].

With this in mind, a Supplementary Planning Document (SPD) document will be produced to provide developers with guidance and advice on considering air quality, ensuring that the Council's ambitious aspirations for air quality are reflected in planning policy.

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[17] Department for Levelling up, Housing and Communities, 2019. Planning system, Air quality guidance.

Pulling the correct levers of change

The Council's declarations, in 2019 and 2020 respectively, of Climate and Ecological emergencies are entirely consistent with increased ambition around air quality. There is much commonality between actions that are required to reduce carbon emissions, and those required to reduce other forms of air pollution. Any move away from combustion of fossil fuels as a source of energy simultaneously supports both ambitions, for example by switching from gas boilers to air source heat pumps, or from vehicles with combustion engines to electric vehicles, or to alternatives to the car. Similarly, any reduction in air pollutants impacting human health will also benefit natural ecosystems.

Since the Council's declarations of environmental emergencies, B&NES has considered them as part of every decision, and has been developing policy to support progress against these objectives across a wide range of Council activities and regulatory frameworks

The policies outlined below will ensure that air quality is considered at every decision-making level, whether this be through a corporate-wide strategy or those which are more specific. By pulling the correct levers of change within these key strategies and policies, B&NES can support its overriding purpose of improving people's lives.

The Council acknowledges that new and revised strategies may be introduced throughout the lifetime of this document and their impact on air quality may need to be considered. These will be assessed on a case-by-case basis and reviewed and reported on where required.

Corporate Strategy

The Corporate Strategy 2023-2027 is the Council's overarching strategic plan. It builds on a previous strategy whilst retaining purpose, values, and core policies. It also introduces an extended outcomes framework to further refine the priorities.

The Council has one overriding purpose – to improve people's lives. This brings together everything we do and underlies our commitments, spending and service delivery. One of our two core policies, which shape all our work, is tackling the climate and nature emergency. We have built upon this policy with an ambition to lead the UK in climate and nature action, building a sustainable future for Bath and North East Somerset: net zero, nature positive by 2030.

To continue to translate our purpose into commitments, we have identified three core principles: preparing for the future, delivering for local residents, and focusing on prevention. Improving air quality is essential to prevention of health inequality. Further information can be found here: https://www.bathnes.gov.uk/document-and-policy-library/corporate-strategy-2023-2027

Climate Emergency Strategy

Alongside other local authorities in the West of England region, B&NES declared a climate emergency in 2019 and committed to achieving carbon neutrality by 2030. This

means we aim to balance our carbon emissions to ensure that the volume of greenhouse gases we release is no greater than the amount we remove.

The Climate Emergency Strategy was published in 2019, and updated in 2023, setting out the Council's approach to deliver on the commitments made in the March 2019 Climate Emergency Declaration[18]. It outlines the strategic priorities for action, which inform more detailed policies and delivery plans across the Council, as well as influencing partners who work alongside us[19]. We are currently working on an updated Climate and Nature Strategy that will be published in 2026.

Each year, B&NES publishes a Climate and Nature annual progress report on key performance indicators and on activities undertaken to progress against our strategic priorities. Many of the actions to support climate and nature offer the co-benefit of improving air quality.

Ecological Emergency Action Plan

Recognising the severity of the degradation of the natural environment and loss of wildlife, and the consequences of this, B&NES declared an Ecological Emergency in July 2020. By taking a regional and national lead in responding to the Ecological Emergency, and working alongside communities and partners across the district, we aim to restore nature.

Since declaring an Ecological Emergency, we have published an Ecological Emergency Action Plan, with the objective of seeing 30% of land managed positively for nature by 2030. The Action Plan focuses on 45 actions that we believe will deliver the biggest impact for nature recovery[20].

Additionally, as part of the Local Plan Partial Update (LPPU), we committed to bringing forward the requirement to deliver Biodiversity Net Gain (BNG) for planning applications. Policy NE3a, which gained full statutory weighting in 2023, allows developments to only be permitted where a BNG of a minimum of 10% is demonstrated and secured in perpetuity (at least 30 years) on selected schemes[21]. Further options to require more than 10% BNG on selected schemes are also being explored and have been consulted upon as part of the preparation process for the new local plan.

Additional information can be found here: https://www.bathnes.gov.uk/biodiversity-net-gain-bng

Other published policies aiming to boost nature include a Greener Places Plan, adopted by Cabinet in November 2025.

Journey to Net Zero Transport Plan and the Movement Strategy

The adopted Journey to net Zero (JNZ) and draft Movement Strategy consulted upon in autumn 2025 set out a plan to tackle some of the biggest transport-related

[18] Bath and North East Somerset Council, 2019. The Climate Emergency.
[19] Bath and North East Somerset Council, 2023. Climate Emergency Strategy.
[20] Bath and North East Somerset Council, 2023. Ecological Emergency Action Plan.
[21] Bath and North East Somerset Council, 2023. New Policy NE3a Biodiversity Net Gain.

challenges our society faces: combating climate change, improving air quality, improving health and wellbeing, and tackling congestion.

The ways in which we currently travel will not get us to carbon neutrality[22]. The JNZ sets out the changes needed to our transport system to create places we want to work and live with better connected, healthier and sustainable communities.

We have placed people at the centre of the Journey to Net Zero and draft Movement Strategy, creating places that offer real transport choice, with sustainable modes of transport providing a genuine alternative to the car. Creating Sustainable Communities in North East Somerset sets out the equivalent vision for our market towns and larger villages.

Joint Local Transport Plan 4

In 2020, the Combined Authority released the Joint Local Transport Plan (JLTP) 4 to set the vision for transport in the region to 2036[23]. One of the five overarching objectives of the JLTP4 is to act on climate change and address poor air quality in the city region. The JLTP recognises the challenges faced by the region, in terms of growth in travel demand and the negative impact this will have on air pollution. It acknowledges the need to improve the offer of more sustainable modes of transport, both to improve air quality, as well as mitigating carbon emissions from transport.

Planning and Air Quality

Consideration of air quality issues at the plan-making stage means a strategic approach is taken to air quality, ensuring that plans are made to mitigate air pollution associated with proposed developments. All developments can influence air quality in several ways. Therefore, it is vital that planning decisions within the authority consider air quality management areas, Clean Air Zones, and other areas of sensitivity[24].

Planning decisions in Bath and North East Somerset are guided by national and local planning policy. Our local planning policy is made up of a series of documents which include the following:

- Local Plan (Core Strategy, Placemaking Plan and Local Plan Partial Update)
- Neighbourhood Plans

The B&NES Local Plan, setting out current planning policy, can be found via the following link: https://www.bathnes.gov.uk/local-plan.

With this in mind, an SPD will be produced to provide developers with guidance and advice on considering air quality, ensuring that the Council's ambitious aspirations for air quality are reflected in planning policy.

The Environmental Monitoring team are a statutory consultee in the planning process and will make necessary representation regarding air quality. This may require an air

[22] Bath and North East Somerset Council, 2023. Climate Emergency Strategy.
[23] West of England Combine Authority, 2020. Joint Local Transport Plan 4.
[24] Department for Levelling up, Housing and Communities, 2019. Planning system, Air quality guidance.

quality assessment and for the applicant to demonstrate they have considered the layout and design to protect existing and future residents including sensitive receptors.

With this in mind, a Supplementary Planning Document (SPD) document will be produced that outlines our local air quality targets to provide developers with guidance and advice on considering air quality. This document will also amplify our objectives on maintaining and improving air quality within the authority.

Joint Health and Wellbeing Strategy

The Health and Wellbeing Strategy is a seven-year strategy that sets out four priorities for improving health and wellbeing and reducing inequalities for the local population[25]. It also identifies the approaches that will be taken to address them. The four priorities are as follows:

- Ensure that children and young people are healthy and ready for learning and education
- Improve skills, good work and employment
- Strengthen compassionate and healthy communities
- Create health promoting places

This strategy works closely with partners from health, social care, other local authorities, higher and further education, public services and community and social enterprise groups. The Health and Wellbeing board has worked to make sure this strategy influences and is influenced by other key strategies both internally and externally.

Furthermore, air quality also forms an integral part of the Annual Health Protection Board Annual Report that is presented to and signed off by the Health and Wellbeing Board.

Awareness Raising Activities and Public Information

The UK Government's *Air Quality Strategy for England (2023)* identifies raising public awareness of air quality impacts and actions to reduce pollution as a key responsibility for local authorities.

Effective communication is essential to improving air quality and reducing the health inequalities associated with pollution exposure. The Council will ensure that residents, businesses and visitors have access to clear, accurate and timely information on local air quality, the associated health impacts, and the practical steps that can be taken to reduce emissions. This approach supports the wider ambition of creating healthier environments across Bath and North East Somerset and aligns with national guidance encouraging local authorities to promote behaviour change as part of their air quality responsibilities.

Additionally, where individuals are concerned about exposure to pollution, particularly when a pollution episode occurs, the concentrations of both NO_2 and PM can be viewed live via the following link: https://www.ukairquality.net/

[25] Bath and North East Somerset, 2024. Joint Health and Wellbeing Strategy.

Behaviour change

Anti-idling

The Council is committed to increasing driver awareness of the negative impact engine idling has on air quality and the contribution it makes to increased NO_2 concentrations. This is of particular concern at sensitive locations where vulnerable people are at risk of coming directly into contact with higher concentrations of pollution e.g. outside schools or medical facilities.

Parking with your engine running can negatively affect the health of those around you, particularly those with developing or compromised immune systems e.g. children and those who are vulnerable. The Council therefore encourages you to turn off your engine when in a stationary vehicle.

As previously promoted in the 'Kick the Habit' anti-idling campaign, the Council aims to continue to raise awareness on the dangers of idling or running an engine in a stationary vehicle. More information on this campaign can be found here: https://www.bathnes.gov.uk/engineoff

School engagement

Engaging with schools around the impacts of poor air quality is especially important given that children are particularly vulnerable to the impacts of pollution due to their developing respiratory systems.

B&NES have developed a Clean Air Schools Toolkit containing educational content, lesson plans and creative engagement tools designed to help primary schools understand air quality, reduce exposure and take practical action.

By engaging with pupils, staff and families, and encouraging active travel and cleaner choices, it is hoped that changes in behaviour will occur that will overall reduce emissions in both the school and home environment.

Following the district-wide role out of the primary school's toolkit, a toolkit aimed at secondary schools is now in the development stage. More information surrounding the toolkit can be found here: https://thehub.bathnes.gov.uk/Page/30325

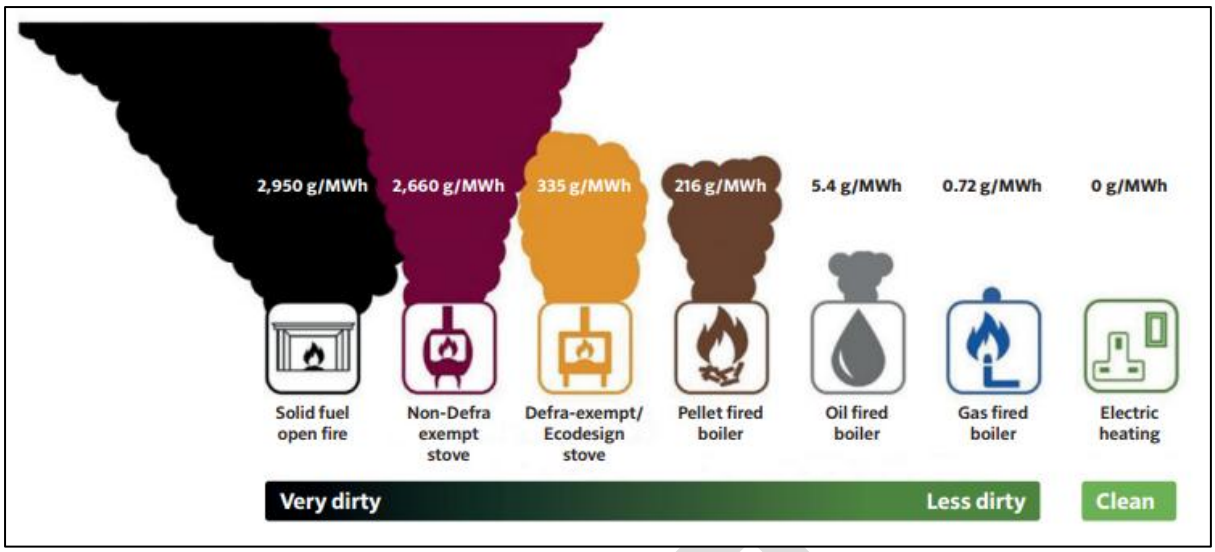
Log Burners and Burning Behaviour

As one of the largest sources of PM within the UK, domestic combustion (including wood burning) has increased in popularity over recent years[26], often being used as a secondary heat source.

Where air pollution is concerned, there is a substantial difference in emissions between open fireplaces and other stove designs, as well as the age of the appliance the fuel that is being used, as demonstrated in figure 14 below[26].

Figure 14 – Solid fuel burning and their associated $PM_{2.5}$ emissions[26].

[26] Chief Medical Officer, 2022. Air Pollution Annual Report.



Burning wood and solid fuel emits PM both inside outside the home. We would encourage those who burn solid fuels to consider alternative methods of heating where possible or consider the frequency in which they are burning to both reduce concentrations of PM and improve public health.

Further information around domestic burning can be found here: https://www.bathnes.gov.uk/indoor-fires-and-wood-burning

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Monitoring and Evaluation of the Clean Air Strategy

The monitoring and evaluation of this strategy is vital to ensure that key actions are progressed, and that air quality continues to improve across the authority.

This Clean Air Strategy outlines the following aims and objectives:

1. To continue to work towards meeting all statutory guidance for pollutants across the authority.
2. To introduce a lower local target for nitrogen dioxide within B&NES of 20 µg/m^3 as an annual average by 2030, and 10 µg/m^3 by 2035.
3. To introduce a lower local target for PM_{10} within B&NES of 20 µg/m^3 as an annual average by 2030, and 15 µg/m^3 by 2035.
4. To introduce a lower local target for $PM_{2.5}$ within B&NES of 10 µg/m^3 as an annual average by 2030, and 5 µg/m^3 by 2035.
5. To ensure an ongoing reduction in pollutants, B&NES will strive towards meeting the World Health Organisation guidelines where the local targets are already being achieved.
6. To continue to review and evaluate monitoring locations across the authority to ensure that pollution hotspots are identified, and that receptor locations are fairly represented with accurate and reliable monitoring data.
7. To introducing a Supplementary Planning Document for air quality.
8. To educate and raise awareness of the health impacts of poor air quality, whilst empowering individuals to take informed actions and decisions and understand how these may negatively impact air quality.

Air Quality Outcomes Matrix

The outcomes matrix presented below, in Table 5, looks to identify the key outcomes arising from this Clean Air Strategy and the associated objectives. The Council is committed to implementing and reviewing these actions to not only improve air quality, but to support our overarching aim of improving people's lives.

Table 5 – Air Quality Outcomes Matrix

Actions	Objectives
To continue to mitigate the impact of air pollution on health.	To continue to provide information and raise awareness on the impacts of air pollution on health to residents, businesses and visitors.
To continue to undertake work that focuses on reducing inequalities from air quality.	By working with our GIS teams, work will be undertaken to understand the areas and

Actions	Objectives
	groups that may be disproportionately impacted by air pollution, and how these impacts can be mitigated.
To implement a local nitrogen dioxide target.	To introduce an ambitious local target for nitrogen dioxide within B&NES of 20 µg/m^3 as an annual average by 2030, and 10 µg/m^3 by 2035.
To implement a local particulate matter target.	To introduce a lower target for both PM_{10} and $PM_{2.5}$.
Developing a more accurate local picture.	To work with key Council teams, local partners, stakeholders and universities to commission research that will allow B&NES to understand the local picture of air quality and health further. This includes commissioning a research project to examine the health improvements arising from the CAZ in Bath.
To increase community understanding of local air quality issues and commit to communications that promote behaviour change.	The Council will provide clear and accessible information, using a range of communication approaches on the health impacts of air pollution, particularly for vulnerable groups.
Create and implement an air quality steering group.	Understand the role of professionals and key stakeholders in sharing information with communities and residents, particularly those that are vulnerable.
To broaden our knowledge around particulate matter sources within B&NES.	We acknowledge that we require a stronger understanding of particulate matter concentrations in B&NES. We are therefore committed to carrying out additional source apportionment work looking at sources from industry and agriculture for example.

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Actions	Objectives
To publish Supplementary Planning Document for air quality.	Amongst other objectives, the SPD aims to introduce guidance around minimising the impact of developments and mitigate any associated air pollution.
To review the Smoke Control Area in line with the Environment Act 2021.	To determine whether the Smoke Control Area needs to be reviewed in line with current legislation.
To continue to monitor air quality under the LAQM regime.	To achieve success at all NO_2 monitoring locations within B&NES in line with the Local Air Quality Management guidelines outlined in the 1995 Environment Act, as amended by the Environment Act 2021.
To continue to publish air quality data and reports online.	To ensure that high-quality, up to date data is readily available and easily accessible on our webpages.
To continue to implement the Environmental Protection programme.	To continue to improve public health by investigating and enforcing statutory nuisance and environmental pollution.
To continue work to support our climate and ecological emergency strategies.	Following the declarations of Climate and Ecological Emergencies[27] we will continue to work with key stakeholders to achieve our objectives outlined in the corresponding action plans.

As outlined in the LAQM Policy Guidance (2022) the Annual Status Report provides an opportunity for local authorities to report on the development of their strategy, as well as any progress on the implementation of specific measures[28].

Therefore, the progress made on our Clean Air Strategy and success against the national air quality objectives will be reviewed and updated annually in our Annual Status Reports. These reports will be published on the following webpage: https://www.bathnes.gov.uk/document-and-policy-library/annual-air-quality-reports

[27] Bath and North East Somerset Council, 2024. Climate and Ecological Emergency.
[28] Defra, 2022. Local Air Quality Management Policy Guidance.