Bath & North East Somerset Council		
MEETING/ DECISION MAKER:	**Policy Development & Scrutiny Panel Committee**	
MEETING/ DECISION DATE:	**22nd January 2026**	EXECUTIVE FORWARD PLAN REFERENCE:
TITLE:	**Air Pollution and Health: Evidence and Targets**	
WARD:	All	
AN OPEN PUBLIC ITEM		
List of attachments to this report: Appendix 1: Listed of relevant air quality and health reports.		

1 THE ISSUE

1.1 To brief Scrutiny Panel on (i) the current UK health-related research on air pollution and (ii) the targets that apply or are emerging nationally, in the EU, and from the World Health Organisation (WHO) for nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$) to inform policy choices, programme priorities and communications.

2 RECOMMENDATION

The Panel is asked to:

2.1 Note the consolidated UK evidence base and endorse its use across B&NES programmes (Local Air Quality Management (LAQM), Clean Air Zone (CAZ), planning, public health messaging).

2.2 Consider whether to recommend that the Council should identify and adopt local targets for nitrogen dioxide and particulate pollution.

2.3 Comment on whether to recommend that the Council should prepare a Clean Air Strategy that sets out what the local target should be, and what regulatory powers there are to help protect people's lives.

3 THE REPORT

Part 1 – Air Quality and Health

3.1 There is overwhelming evidence to demonstrate that poor air quality leads to adverse health outcomes. Appendix 1 provides a list of air quality documents that support this report.

3.2 There are overarching themes amongst these reports:

There is no safe level for $PM_{2.5}$
There are adverse effects of $PM_{2.5}$ on health observed from low concentrations and therefore reductions below current UK guideline levels are required for improved population health benefits.
(Committee on the Medical Effects of Air Pollutants (COMEAP), Royal College of Physicians (RCP) and Chief Medical Officer (CMO)).

Children and vulnerable groups
There is robust evidence identifying the disproportionate impacts on children, older adults, and people with existing conditions. Recommendations conclude that priority actions should reduce exposures where vulnerable groups live, learn and work.
(COMEAP, RCP, University of Cambridge (UoC), & CMO)

Air pollution and health
The impact of air pollution on human health is significant from pregnancy and throughout the life span highlighting air pollution as both an environmental and public health challenge. There are considerable impacts experienced from both short and long-term exposure including contributing to significant mortality and economic costs requiring increased action to reduce pollutant concentration and exposure levels.
(COMEAP, RCP, UoC, & WHO).

3.3 **Description of Key Pollutants**

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high temperature combustion processes such as road transport, domestic boilers and other energy generation.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particulate can come from natural sources such as pollen, as well as human made sources such as smoke from fires, dust from tyres and brakes, emissions from industry and agricultural processes. Particulate matter can travel large distances from within the UK and Europe, which can contribute to our local concentrations.

3.4 We currently undertake monitoring for nitrogen dioxide, moving forward we would look to increase our monitoring of particulate matter to enable us to understand concentrations and sources across the district.

Part 2 – Air Quality Targets and Standards

3.5 There are three different sets of targets and standards set by UK, EU, and World Health Organisation (WHO) which are presented in the table below.

3.6 Where the UK objectives are exceeded an Air Quality Management Area (AQMA) is declared. There are three AQMAs (Bath, Farrington Gurney and Temple Cloud) in BANES which have been declared for exceedances of the nitrogen dioxide objectives. In 2024 the objective was met across the district. In the same year we revoked the AQMAs in Keynsham and Saltford. Monitoring is continuing to ensure we demonstrate on-going compliance before revoking further AQMAs.

3.7 EU set air quality standards; the standards show that our neighbouring countries have tighter regulations than the UK which we could use as benchmarking and reviewing our own ambition.

3.8 The guidelines produced by the World Health Organisation (WHO) are not statutory but are based on scientific and health data. They acknowledge that lower pollution levels are better for health.

Air Quality Standards and Targets				
Pollutant	**Averaging period**	**UK Objective**	**EU limit (To be achieved by 2030)**	**World Health Organisation Guideline**
Nitrogen Dioxide (NO_2)	Hourly	200 µg/m^3 not to be exceeded in an hourly period more than 18 times a year	200 µg/m^3 not to be exceeded in an hourly period more than 3 times a year	200 µg/m^3
Nitrogen Dioxide (NO_2)	Annually	40 µg/m^3	20 µg/m^3	10 µg/m^3
Nitrogen Dioxide (NO_2)	Daily	/	50 µg/m^3 not to be exceeded more than 18 times a year	25 µg/m^3
Particulate Matter (PM_{10})	Daily	50 µg/m^3 not to be exceeded within a 24hour period more than 35 times a year	45 µg/m^3 not to be exceeded more than 18 times a year	45 µg/m^3
Particulate Matter (PM_{10})	Annually	40 µg/m^3	20 µg/m^3	15 µg/m^3
Particulate Matter ($PM_{2.5}$)	Annually	20 µg/m^3 10 µg/m^3 by 2040	10 µg/m^3	5 µg/m^3
Particulate Matter ($PM_{2.5}$)	Daily	/	25 µg/m^3 not to be exceeded more than 18 times a year	15 µg/m^3
Particulate Matter ($PM_{2.5}$)	Exposure	35% reduction in concentrations at an urban background.	/	/

3.9 To set local targets for both pollutants, the Council would review the EU limits and WHO guidelines. We would consider what other local authorities have done, some examples of local targets are provided in the table below. We would also review all the current monitoring data and use forecasting tools available to estimate concentrations in future years. Targets selected would be ambitious be achievable.

Examples of LA's with Local Targets:

	NO_2	PM_{10}	$PM_{2.5}$
Camden	20 µg/m^3 by 2030 10 µg/m^3 by 2034	15 µg/m^3 by 2030	10 µg/m^3 by 2030 5 µg/m^3 by 2034
Cambridge	20 µg/m^3 by 2029 10 µg/m^3 no date	20 µg/m^3 by 2029	10 µg/m^3 by 2029
Oxford	30 µg/m^3 by 2025	N/A	N/A
Newcastle	30 µg/m^3 by 2030	N/A	N/A

4 STATUTORY CONSIDERATIONS

4.1 Under Part IV of the Environment Act 1995 as amended by the Environment Act 2021, and the relevant Policy and Technical Guidance documents, local authorities are required to review and assess air quality within their authority area.

4.2 The Council's monitoring programme is compliant with the guidance provided in '*Local Air Quality Management Technical Guidance 2022'.*

The Council is meeting the annual UK objective standards for nitrogen dioxide and particulate pollution (*Annual Status Report 2025*). Reports on progress made in terms of monitoring and implementing actions identified in the air quality action plans annually in the annual status report (copies of these reports can be found on our website - https://www.bathnes.gov.uk/document-and-policy-library/annual-air-quality-reports).

The Council currently has three air quality management areas these are reviewed each year and should be considered for revocation if concentrations are below 36 µg/m^3 for 3 consecutive years. Each AQMA has an Air Quality Action Plan which focuses on reduction of nitrogen dioxide within the specific area. This doesn't include particulate matter or nitrogen dioxide across the wider district which would be included in an Air Quality Strategy.

Within the UK Government's "Air Quality Strategy framework for local authority delivery (2023)", there is an expectation that local authorities take proactive and preventative action to improve air quality reflected in their air quality strategy. Since 2023, the policy guidance '*Local Air Quality Management Policy Guidance 2022'* requires a local authority that has revoked its AQMAs to develop a district wide Air Quality Strategy to ensure air quality remains a high-profile issue and to ensure that they can respond quickly to a deterioration in concentrations.

Although the Council still has AQMAs, there are areas of the district which have been revoked or have not been included in an AQMA which would benefit from the development of a local Air Quality Strategy.

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The officer resource to continue to monitor, evaluate and report on nitrogen dioxide is met from existing revenue budgets.

5.2 Should the recommendation to determine a local target and/or the production of a Clean Air Strategy be recommended, there may be some capital outlay required to purchase additional monitoring equipment specifically relating to monitoring particulate matter, as well as additional revenue outlay for associated data ratification, forecasting, ongoing maintenance and servicing associated with additional monitoring. Any additional capital or revenue could not be incurred until a budget has been identified to fund the additional expenditure and any request for additional budget would need to be approved through the Council's budget setting processes.

6 RISK MANAGEMENT

6.1 A risk assessment related to the issue and recommendations will be undertaken, should the recommendation to determine a local target and/or the production of a Clean Air Strategy be recommended in compliance with the Council's decision-making risk management guidance.

7 EQUALITIES

7.1 Air pollution affects children, older adults and those with existing conditions more severely; lower-income areas often experience higher exposure. Any new local targets or Clean Air Strategy will undergo an Equalities Impact Assessment to assess impacts and mitigations.

8 CLIMATE CHANGE

8.1 The Council declared a Climate Emergency in March 2019, resolving to provide the leadership to enable the Bath and North East Somerset Area to be carbon neutral by 2030. This was followed by the Ecological Emergency, which was declared in July 2020, recognising the severity of the degradation of the natural environment and loss of wildlife, the consequences of this, and the urgency with which we need to take action to restore nature. The Council resolved to be nature positive as an organisation by 2030.

Should the recommendation to determine a local target and/or the production of a Clean Air Strategy be recommended, this would aim to reduce pollutant concentrations across the district, which would also lead to a reduction in carbon dioxide emissions, supporting the Council's climate commitments.

9 OTHER OPTIONS CONSIDERED

9.1 None, this is an evidence and targets briefing.

10 CONSULTATION

10.1 We work in partnership with Public Health.

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Background papers	None
Please contact the report author if you need to access this report in an alternative format	

Appendix 1 – List of air quality and health reports

(1) Statutory expert advice from Committee on the Medical Effects of Air Pollutants (COMEAP) | Annual Report 2024

The COMEAP annual report provides a robust overview of committee work in 2024 across multiple health topics including: adverse birth outcomes; cardiovascular morbidity; indoor air quality; childhood asthma; and air pollution. The committee's study and advice is utilised to support and inform Governmental Departments and local authorities in developing policy, undertaking analysis and providing advice to members of the public.

(2) COMEAP | Air pollution and adverse birth outcomes (2025)

This report reviews and weighs existing and emerging evidence regarding maternal exposure to air pollutants and the associated outcomes such as low birth weight and pre-term birth. Whilst there is emerging evidence to support the association between air pollutants and maternal exposure to birth outcomes, the report identifies the need for increased study in the area to improve understanding and strength of associations.

(3) University of Cambridge (UoC) | Long-term exposure to outdoor air pollution linked to increased risk of dementia (2025)

Research from an analysis study carried out by UoC has identified strong associations between air pollutants and cognitive decline. Three pollutants of note with significant association include $PM_{2.5}$, NO_2 and soot (from sources such as vehicle exhaust and wood burning). Research established an individual's relative risk of dementia would increase by 17% for every 10 µg/m³ (micrograms per cubic metre) of $PM_{2.5.}$ The study highlights the significant role that urban planning, transport policy and environmental regulation have in both reduction and exposure to key pollutants with the aim of improving public health, specifically dementia prevention.

(4) Chief Medical Officer (CMO) | Annual Report: Air pollution (2022)

The CMO's independent report synthesises the life course harms of air pollution, from pregnancy and childhood to older age. The report outlines actions to improve outdoor air quality with practical, local actions such as with increased active and public transport options supported by urban planning, and increased awareness of the significant impact of domestic burning on local air quality. Additionally, the impact on health of indoor air quality is acknowledged alongside the need for increased study in this area and supporting regulation to improve ventilation in private and public buildings.

(5) The Royal College of Physicians (RCP) | A breath of fresh air: responding to the health challenges of modern air pollution (2025)

The report acknowledges the links between air pollution and health, identifying air quality as both an environmental and public health issue. RCP has estimated that the significant health implications of air pollution contributed to the equivalent of 30,000 deaths in the UK in 2025, costing over £27 billion annually. Encouraging the recognition of air quality as a public health issue, RCP supports the World Health Organisation (WHO) more stringent global air quality guidelines. The report provides insights into the dangerous short and long-term impacts of air pollution and presents cross-governmental policy action and recommendation to support reduction in concentration levels and exposure to harmful air pollutants.

(6) World Health Organisation | Health risks of air pollution in Europe (2025)

WHO identifies air pollution as the largest environmental risk factor for health, acknowledging the wide-ranging impacts air pollutants cause to human health. The report provides guidance on concentration-response functions and associated information for key pollutants ($PM_{2.5}$, O_3 and NO_2) and health-outcomes to support the assessments of effects from different exposure durations. Guidance is provided for mortality and morbidity outcomes enabling comprehensive health risk assessments.

(7) Public Health England/ National Institute for Health and Care Excellence: Air Pollution: Outdoor air quality and health (2017)

The report focuses on road traffic air pollution and associated ill health. With an aim to improve air quality to prevent a health conditions and deaths.