

Bath & North East Somerset Council

MEETING:	Climate Emergency and Sustainability Policy Development & Scrutiny Panel		
MEETING DATE:	24 January 2022	EXECUTIVE FORWARD PLAN REFERENCE:	
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TITLE:	Air Quality update		
WARD:	All		
AN OPEN PUBLIC ITEM			
List of attachments to this report: 2021 Air Quality Annual Status Report Bath CAZ Quarterly Monitoring Report April- June 2021 Bath CAZ Quarterly Monitoring Report July- September 2021			

1 THE ISSUE

- 1.1 Poor air quality is the largest known environmental risk to public health in the UK. Investing in cleaner air and doing more to tackle air pollution are priorities for the UK government, as well as for Bath and North East Somerset Council (B&NES). B&NES has monitored and endeavoured to address air quality in Bath, and the wider B&NES area, since 2002. The pollutants of concern remain Nitrogen Dioxide (NO₂) and particulate matter (PM) and despite efforts made, Bath and areas in Temple Cloud have ongoing exceedances of the legal limits for NO₂.
- 1.2 In 2017 the Council was directed to introduce a Clean Air Zone to expedite the reduction of nitrogen dioxide levels in the centre of Bath and this was launched on 15 March 2021.

2 RECOMMENDATIONS

The Panel is asked to:

- 2.1 Note the report and accompanying presentation at the Panel, and discuss the update to air quality monitoring throughout B&NES.

3 THE REPORT

- 3.1 Since 2002, the Council has developed an extensive network of monitoring sites throughout the district for the main pollutants of concern- nitrogen dioxide and particulate matter, both PM₁₀ and PM_{2.5}. More detail on the pollutants which are monitored in B&NES can be found in the Annual Status Report, Section 3.2.
- 3.2 The main source of these pollutants is vehicles and areas where exceedances occur tend to be where there is a concentration of traffic in streets with high buildings, where the pollution is unable to disperse easily. This is explained in further detail in the [Quarterly Performance Report April- June 2021, pages 10-11.](#)
- 3.3 Two monitoring methods are used to measure NO₂ and particulate matter in accordance with government guidance; diffusion tubes, which are relatively easy to deploy and are typically mounted at above head-height on building facades or street furniture and continuous monitors, which are permanently located, taking readings on an hourly basis and thus providing greater accuracy than diffusion tubes. Further explanation of how we monitor air quality can be found in the [Quarterly Performance Report April- June 2021 pages 19-20.](#)
- 3.4 As of 2021 Q3, there are a total of 162 monitoring sites across Bath and North East Somerset, with 65 located in the Clean Air Zone, 57 located in the city's urban area outside of the zone's boundary and the remaining 40 located throughout the rest of the district. The location of these monitoring sites can be viewed in the [Quarterly Performance Report July- September page 25, Figure 3.](#)
- 3.5 Historic air quality data can be viewed using an interactive map located at <https://www.bathnes.gov.uk/services/environment/pollution-noise-nuisance/air-quality/air-quality-data-long-term> This will provide information on trends in individual locations depending on how long the monitoring site has been in operation.
- 3.6 More recent air quality data can be viewed at <https://www.bathnes.gov.uk/services/environment/pollution-noise-nuisance/air-quality/live-air-quality-data> . This webpage is under development as part of the wider project to update the Council's website, as our ambition is to show this data in a visually impactful, interactive way to improve wider understanding of how air quality levels can change.
- 3.7 Explanation of current air quality levels in B&NES using bias corrected and peer reviewed data can be found in the [2021 Air Quality Annual Status Report.](#) This reviews data collected during 2020 which would have been significantly impacted by the pandemic.
- (1) Bath & North East Somerset has monitored NO₂ at 161 locations with 50 of these locations using triplicate diffusion tubes in 2020.
 - (2) The average decrease across the long-term sites was 20% compared with 2019 monitoring data.

- (3) Bath – despite the effects of the 2 lockdown periods in 2020, 3 sites remain above the annual average objective of 40 µg/m³ across Bath in 2020 (DT198 – Walcot Parade, DT222 – Anglo Terrace Façade and DT224 – Walcot Parade 2).
- (4) Keynsham – Monitoring continues to show a reduction in the NO₂ concentrations following the start of the trial for a one-way system in Keynsham. All sites were below the objective of 40 µg/m³ in 2020.
- (5) Saltford – All sites were below the objective of 40 µg/m³ in 2020.
- (6) Temple Cloud – Monitoring remains above the objective of 40 µg/m³ at 2 locations with concentrations reducing at all other locations.
- (7) Farrington Gurney – All sites were below the objective of 40 µg/m³ in 2020.
- (8) Pensford – Monitoring in Pensford on the A37 has remained below the objective of 40 µg/m³ .
- (9) Whitchurch – Monitoring in Whitchurch was below the objective of 40 µg/m³ .
- (10) Batheaston/Bathampton – monitoring remains below 40 µg/m³ at all locations.
- (11) Radstock/Westfield - monitoring remains below 40 µg/m³ at these locations.
- (12) Peasedown St John - New monitoring in Peasedown St John was well below the objective of 40 µg/m³.
- (13) 1-hour objective – All sites in Bath & North East Somerset are below 60 µg/m³ – this suggests that the 1-hour NO₂ objective is unlikely to be exceeded.

3.8 Since the launch of the CAZ in Bath the Council has committed to providing provisional air quality data in Quarterly Performance Reports, two of which have now been published and are appended to this report. The key headlines from the last report covering [July- September 2021](#) are:

- (1) Average nitrogen dioxide (NO₂) concentrations within the CAZ are 14 per cent lower than the same period in 2019 (Q3), representing a reduction of - 4.1 µg/m³ . This is the average reading from a total of 35 monitoring sites within the CAZ that recorded full quarterly data from July to September in both 2019 and 2021.

(Note: This is in the context of national traffic levels in this quarter returning to pre-pandemic levels with usage of LGV's and HGV's exceeding pre-pandemic levels (Department of Transport).

- (2) Acknowledging this general improvement, quarterly average concentrations of NO₂ at nine monitoring sites still record results greater than 40 µg/m³ . The average change between these nine sites was 0.7 µg/m³ or a 1.6 per cent increase.

- (3) Of the nine sites which recorded an average NO₂ concentration greater than 40 µg/m³ during the current quarter, four sites (Gay Street Lower, Walcot Parade 2, Gay Street 2 and Upper Bristol Road 4) recorded lower average NO₂ concentrations. One site (Dorchester Street) remained the same. The four remaining sites (Wells Road, Victoria Buildings, Broad Street 4 and Chapel Row 2) recorded an increase in NO₂ concentration.
- (4) Some of these sites are located on, or impacted by, diversion routes for the Cleveland Bridge closure. We are monitoring at these locations and it is anticipated that these concentrations will stabilise once the bridge reopens to most traffic.
- 3.9 The World Health Organisation (WHO) has recently published ambitious guidelines for nitrogen dioxide and particulate matter which are much lower than the current, legal objective threshold limits. A central government consultation will be taking place in 2022 on how these guidelines will may be enshrined into UK legislation, which will inform future thinking on how the Council will continue to achieve and maintain success with the Ministerial Directions . The Council is keen to continue to be ambitious about improving air quality and a recent Cabinet report has tasked officers with looking at further options for achieving this
<https://democracy.bathnes.gov.uk/documents/g6105/Public%20minutes%2015th-Dec-2021%2018.30%20Cabinet.pdf?T=11>
- 3.10 Looking to the future, the Council will continue to develop it's monitoring network and explore ways of improving understanding and awareness of the impacts of poor air quality. Officers will also be collaborating with the Low Traffic Neighbourhood (LTN) teams to ensure that the effects on local air quality within and around the schemes are understood.

4 STATUTORY CONSIDERATIONS

- 4.1 The Council is required to fulfil the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the associated Policy and Technical Guidance documents to this Act.
- 4.2 The Act places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. So far, AQMA's have been declared in Bath, Saltford, Keynsham, Temple Cloud and Farrington Gurney, although the AQMA's in Saltford and Keynsham are due to be revoked in 2022 due to 3 years of achieving no exceedances in these areas.
- 4.3 This Annual Status Report (ASR) is an annual requirement showing the strategies employed by the Council to improve air quality and any progress that has been made. The statutory air quality objectives applicable to LAQM in England are presented in the table below.

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO ₂)	200µg/m ³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO ₂)	40µg/m ³	Annual mean
Particulate Matter (PM ₁₀)	50µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM ₁₀)	40µg/m ³	Annual mean
Sulphur Dioxide (SO ₂)	350µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO ₂)	125µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO ₂)	266µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The cost of air quality monitoring is funded from existing Council budgets which have been supplemented with government funding awarded through the CAZ Business Case development process, in view of the expansion of the monitoring network in and around the CAZ.

6 RISK MANAGEMENT

6.1 A risk assessment related to the issue and recommendations will be undertaken, in compliance with the Council's decision making risk management guidance.

7 CLIMATE CHANGE

7.1 Whilst CO₂ (carbon dioxide) is currently regarded as a climate change gas rather than a pollutant, it is anticipated that improving awareness about vehicle emissions will help facilitate the outcomes of local transport policies, reducing vehicle-related CO₂ emissions as well as NO₂ and particulate matter pollution.

8 OTHER OPTIONS CONSIDERED

8.1 None.

9 CONSULTATION

9.1 Consultation has been carried out with the Council's S151 Officers, Director of Place Management, as well as the Cabinet Member for Climate Emergency and Sustainability.

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Background papers	
Please contact the report author if you need to access this report in an alternative format	

