

Bath & North East Somerset Council			
MEETING:	Cabinet		
MEETING DATE:	16th December 2021	EXECUTIVE FORWARD PLAN REFERENCE:	
		E	3326
TITLE:	Bath Clean Air Plan - update December 2021		
WARD:	All		
AN OPEN PUBLIC ITEM			
List of attachments to this report: Appendix (a)- Bath's Clean Air Zone Quarterly Monitoring Report, July- Sept 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. Despite this, Bath has ongoing exceedances of the legal limits for Nitrogen Dioxide (NO₂), and these were predicted to continue until 2025 without intervention.
- 1.2 To achieve compliance with Ministerial Directions, on 15 March 2021 a Clean Air Zone (CAZ) was launched in Bath, the first charging CAZ outside of London.
- 1.3 Whilst many of the monitoring measures, including air quality, are ordinarily reported on an annual basis, this report is the second in a series which provides an indicative view of the performance of the Clean Air Zone in Bath from July-September 2021.

2 RECOMMENDATIONS

The Cabinet is asked to:

- 2.1 Note the performance report and the ongoing progress which has been made towards improving air quality and associated public health outcomes, together with the ongoing increasing proportion of compliant

vehicles entering the CAZ and achieving success with the Ministerial Direction.

- 2.2 Note the continued performance of the scheme against the scheme's financial model, ensuring it covers its costs of operation and avoids placing an additional burden on the Council and local taxpayers.
- 2.3 Note that after assessing over 2,500 applicants who applied to the financial assistance scheme, and finding 1,495 vehicles eligible for replacement or retrofit treatment, the current round of funding for the financial assistance scheme will be concluding. However, a waiting list is being held, should further funding become available.
- 2.4 Note the success achieved at key hotspot monitoring locations in reducing nitrogen dioxide levels e.g. Gay Street, acknowledge the risk that more intervention may be required at some locations, e.g. Wells Road and note the work that Officers have already been doing in anticipation of this outcome.

3 THE REPORT

- 3.1 The second quarterly performance report is attached at Appendix (a) and provides an indicative summary of the performance of the CAZ between July-September 2021. As the scheme continues to embed and with the impact of the significant temporary diversionary routes on the road network in the last quarter, it remains challenging to draw any binding conclusions. However, the Council is committed to sharing data for transparency, and we are keen for the public to see the data so that they can understand the impact their contributions and compliance are making to vehicle emissions, air quality and public health outcomes.
- 3.2 As the traffic network in Bath is very sensitive to change due to the restricted capacity and limited number of river crossings, changes to the network are likely to impact both on air quality and congestion. As highlighted in the previous report, in this quarter the closure of Cleveland Bridge in Bath has had a short-term impact on traffic flows in and around the city, which has then affected levels of nitrogen dioxide in certain monitoring locations; some monitoring sites have benefited from decreases in concentrations whilst others have experienced increases. Achieving success with the Ministerial Direction is determined by the annual average concentrations over a calendar year, so it is important we take a long-term view of these results.
- 3.3 Again, this quarterly report principally covers air quality data and trends in traffic movements and composition. Annual reports will also seek to measure other parameters such as any changes in retail footfall over the 12 months to December, with the understanding that there will be pandemic impacts affecting this data. Key findings from the report include the following, however, please note that 2020 has been discounted as a baseline for comparative data because of the severe impact of the pandemic on traffic and travel behaviour last year:

- Ongoing, provisional air quality, traffic and vehicle compliance data indicates that Bath's Clean Air Zone is having the intended effect of improving fleet compliance, changing behaviours (including the behaviour of car drivers), and improving the city's air quality in general.
- 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.
- Similar levels of NO₂ reduction were found in the Bath urban areas outside the zone's boundary, including Batheaston and Bathampton, averaging a 9 per cent reduction, or -1.9 µg/m³, from a total of 41 CAZ_Boundary monitoring sites 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 statistics).

- Compared with the same quarter in 2019, six fewer monitoring locations in Bath now recorded quarterly annual average levels of NO₂ concentrations over 40 µg/m³ and twelve fewer monitoring locations over 36 µg/m³.
- Acknowledging the progress in achieving success after 6 months of operation, quarterly average concentrations of NO₂ at nine monitoring sites still recorded results greater than 40 µg/m³, albeit four of these sites (Gay Street Lower, Walcot Parade 2, Gay Street 2, and Upper Bristol Road 4) saw a decrease in the average NO₂ concentration from the previous quarter. One site (Dorchester Street) remained the same. Four sites (Wells Road, Victoria Buildings, Broad Street 4, and Chapel Row 2) saw an increase in NO₂ concentration. Some of these monitoring sites are located on, or impacted by, diversion routes for the Cleveland Bridge closure, so it is anticipated that these concentrations will stabilise once the bridge reopens to most traffic.
- Compliance rates for all chargeable vehicle categories travelling within the zone continue to improve and rates for HGV's, coaches, buses, and taxis are now consistently higher than 90%. The compliance rate for LGV's continues to improve and is now approaching 80%.
- The percentage of chargeable non-compliant vehicles (as a percentage of all traffic) entering the zone each week reduced from

5.7% in the launch week, to an average of 1.7% between July and September.

- Traffic flows within Bath and the CAZ have not been representative during July- September 2021 due to some major roadworks and diversionary routes.
- Average traffic flows in the urban areas outside of the zone's boundary, including Batheaston and Bathampton, are 2% lower than the baseline (2017/18 Q3).
- Average traffic flows across the wider B&NES district are 1% lower than the baseline (2017/18 Q3).
- To the end of September 2021, owners of 1,495 vehicles have so far passed the Council's eligibility checks to apply for funding to upgrade or retrofit their non-compliant vehicles via the Council's approved finance partners.
- 591 vehicles have already been replaced with cleaner, compliant ones, and hundreds more are due to be replaced in the coming months.

3.4 As the traffic and air quality modelling carried out as part of the Full Business Case could not have anticipated the effects of the global pandemic or the need to temporarily close Cleveland Bridge for emergency works, a validation exercise is ongoing to ensure that compliance will still be achieved in the shortest possible time. As exceedances continue to exist, action is focussing on these areas, particularly on fleet composition (volumes and emissions standards) and driver behaviour, which could influence nitrogen dioxide concentrations.

3.5 In the last quarter the Council has been liaising with the Joint Air Quality Unit (JAQU) on the process for demonstrating that B&NES has achieved compliance (now termed 'achieving success') with the Ministerial Direction. Whilst discussions are ongoing, a roadmap is emerging in which the Council will need to initially demonstrate compliance at all monitoring sites, before maintaining this compliance for at least a further 2 years. At this point, it will be considered that the necessary behaviour change will have become embedded enough to ensure that, even if the measures were removed, nitrogen dioxide concentrations are likely to remain below air quality objective threshold limits.

3.6 The Council is aware that the World Health Organisation (WHO) has recently published ambitious guidelines for nitrogen dioxide and particulates which are much lower than the current objective threshold limits. A central government consultation will be taking place in 2022 on how these guidelines will be enshrined into UK legislation, which will

inform future thinking on how the Council will continue to achieve and maintain success with the Ministerial Direction.

- 3.7 During the development of the Full Business Case, traffic modelling did suggest that there could be both increases and decreases in traffic flows on some roads because of the CAZ being introduced. However, it did not anticipate the changes in national and local traffic patterns because of the pandemic. The report provides information on how concerns about the potential displacement of traffic and pollution have been investigated since the launch of the scheme and provides an update on the progress of these investigations, which have involved the deployment of temporary ANPR cameras to better understand the proportion of non-compliant traffic in areas of concern. However, due to the significant impact that the closure of Cleveland Bridge has had on the road network, this monitoring remains ongoing in many cases so that the precise impact of any CAZ displacement (as opposed to temporary changes in traffic patterns due to the closure) can be understood. Engagement with local companies has also demonstrated that they continue to adapt their business models in response to an increased demand for home deliveries, which supports the view that more LGVs and HGVs are being seen in residential areas throughout Bath.
- 3.8 The financial assistance scheme to bring forward replacement of non-compliant vehicles or provide retrofit treatments to vehicles has been very successful. After assessing over 2,500 applicants who applied to the scheme, 1,495 vehicles have passed the eligibility tests for the scheme, and so the current round of funding for the financial assistance scheme will be concluding. However, a waiting list is being held, should further funding become available. By the end of September 2021, some 591 vehicles have been upgraded with the Council's support.
- 3.9 The Charging Order, which provides the legal framework for the scheme, requires that in the first place any surplus revenue should be used to cover the cost of operation of the scheme, including the maintenance of infrastructure and operational staff. Overall, it is not anticipated that the scheme will generate substantial net revenues, however, larger amounts will inevitably be received in the early months of the scheme as it embeds. Indeed, the more vehicles that are compliant with the scheme's standards the less revenue will be generated. If any net revenues are generated from the scheme, these will be focused on delivering local transport and air quality initiatives.

4 STATUTORY CONSIDERATIONS

- 4.1 The Council has received a total of three separate Ministerial Directions throughout the development of the scheme, the effect of which is that the Council must fulfil its statutory duty to achieve compliance with air quality standards in the shortest possible time and by 2021 at the latest. Following the launch of the scheme on 15 March 2021 and despite the challenges posed by the pandemic, officers have continued to work hard to achieve this legal requirement.

4.2 It is widely recognised by Client Earth and others that support for people and businesses to move to cleaner forms of travel and transport remains crucial and 'building back greener' should be an integral part of the pandemic recovery.

4.3 Achieving compliance with air quality standards across Bath and the wider North East Somerset area will result in widespread public health improvements and moving people and businesses to cleaner forms of travel and transport should be part of the package of economic recovery measures following the COVID-19 restrictions. Specific health impacts for NO₂ include:

- Long-term exposure to air pollution is linked to increases in premature death, associated with lung, heart and circulatory conditions.
- Short-term exposure can contribute to adverse health effects including exacerbation of asthma, effects on lung function and increases in hospital admissions. There is also emerging evidence to suggest that improving air quality helps to reduce the effects of respiratory illnesses and therefore lowers the risk of people being more severely affected by COVID-19; and
- Other adverse health effects including diabetes, cognitive decline and dementia, and effects on the unborn child are also linked to air pollution exposure.

4.4 The Council has a public sector equality duty to have due regard to the need to (in summary) eliminate discrimination, advance equality of opportunity, and foster good relations between people who share a relevant protected characteristic and those who do not. An Equalities Impact Assessment (EqIA) was drafted in September 2018 so that the Council could fulfil this duty and has been subsequently reviewed on several occasions, including around the launch of the scheme. The latest review did not identify any adverse impacts and the latest version (recently updated) can be found here: <https://beta.bathnes.gov.uk/policy-and-documents-library/clean-air-zone-equality-impact-assessment>

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The aim of the charging scheme is to reduce dangerous levels of nitrogen dioxide in the shortest time possible through encouraging and embedding behaviour change. Any income is secondary to this aim, as the ongoing payment of zone entry charges and penalty charge notices is indicative that the necessary behaviour change is still required.

5.2 The scheme has been set up using grant funding from central government so there is no additional burden on the Council and local taxpayers.

5.3 Revenue grant funding to implement the scheme in advance of the receipt of any surplus income (the Implementation Fund monies) or as part of mitigating the impact of the scheme (the Clean Air Fund monies), has been allocated in the following way up until 31st October 2021:

	Grant allocation to date (£)	Amount spent to date (£)	Amount remaining (£)
Implementation Fund	2,067,938	1,272,883	795,055
Clean Air Fund	1,226,548	688,443	538,105

Should these funds be spent and there is a shortfall in income, such that it does not cover the operating costs, then this risk is considered in para 6.5 of this report.

5.4 The values in the table above do not include additional 'stretch-funding' i.e., where we are likely to exceed the initial allocated budget and we have further stretch funding that we are able to apply for from central government. This amounts to £0.280M of Clean Air Fund funding, of which £0.150M is for the E-Cargo Bike Delivery Scheme.

5.5 Capital funding received from central government to implement the scheme (the Implementation Fund monies) or as part of mitigating the impact of the scheme (the Clean Air Fund monies) has been allocated in the following way up until 31 October 2021:

	Grant allocation to date (£)	Amount spent to date (£)	Amount remaining (£)
Implementation Fund	6,250,000	5,030,541	1,219,459
Clean Air fund-Bus Retrofit Scheme	1,743,000	1,528,671	214,329
Clean Air fund-Financial Assistance Scheme	5,470,870	4,158,662	1,312,208
Clean Air fund-E-Cargo Bike Delivery Scheme	250,000	0	250,000
Total	13,713,870	10,717,874	2,995,996

5.6 The values in the table above do not include additional 'stretch-funding' i.e., where we are likely to exceed the initial allocated budget and we have further stretch funding that we are able to apply for from central

government. This amounts up to £3.880M for the Financial Assistance Scheme (of which at least £1.5M is likely to be awarded) and up to £0.150M for the E-Cargo Bike Delivery Scheme.

- 5.7 Once capital grant funding is fully spent all further Clean Air Zone capital spend must be covered from surplus income received.
- 5.8 The view remains that overall the scheme will not generate substantial net revenues; however, larger amounts will inevitably be received in the early stages as the public adapt to the scheme. In the initial stages of implementation, grant funding was received to support the setting up of the scheme and the initial phase of operation, with subsequent scheme costs being covered by income. Any surplus income at the end of each financial year will be set aside to cover future scheme costs across three reserves; a smoothing reserve (to ensure that the ongoing operating costs are covered), a decommissioning reserve, and a reinvestment reserve. Any surplus once the smoothing reserve and decommissioning reserve are covered, will be transferred to the reinvestment reserve to fund local transport schemes.
- 5.9 From 15 March 2021 until 30 October 2021 and after two months of soft enforcement during which only the zone entry charge was recovered, the scheme has received £3,470,508 of income- £1,783,068 from the payment of zone entry charges and £1,687,440 from the settlement of Penalty Charge Notices (PCNs). The team continue to take a common sense approach to enforcement, cancelling PCNs where appropriate- the CAZ is first and foremost a behaviour change scheme. Operational costs for this period have amounted to £1,272,883M and during the early stages of the scheme continue to be covered by grant funding as explained in para 5.8 above.
- 5.10 At present all the revenue income received is being allocated to the smoothing reserve and decommissioning reserve to cover future committed costs. Until the smoothing reserve and decommissioning reserves are sufficiently funded, and the operational costs covered, there can be no allocation of surplus income to the reinvestment reserve.
- 5.11 The budgets for both zone entry charge income and penalty charge income were modelled on a worst-case scenario basis and assumed that any income from the scheme would not be received before July 2021 for zone entry charge income, and September 2021 for penalty charge income, to accommodate the risk of potential legal challenges and other factors.
- 5.12 The operating costs over the 10 yr life of scheme are forecasted to be £15.2M. So far, grants received and income raised total £6.7M, leaving £8.5M to be funded from future income and the smoothing and decommissioning reserves.

6 RISK MANAGEMENT

- 6.1 A risk assessment for the project has been undertaken, in compliance with the Council's decision-making risk management guidance. Specific information can be found in the Quantifiable Risk Assessment as part of the Full Business Case at https://beta.bathnes.gov.uk/sites/default/files/2020-10/appendix_m_674726.br_042.fbc-23_risk_management_strategy.pdf
- 6.2 The remaining key risk relates to uncertainty about delivering compliance in the shortest time possible due to global pandemic impacts and other factors. To mitigate this risk, officers are undertaking a model validation exercise to understand if any further intervention is required. In addition, highly sensitive air quality monitoring equipment has been deployed at key locations with a view to better understanding how fleet composition and driver behaviour are influencing NO₂ levels.
- 6.3 The delivery and success of the CAZ has a range of interdependencies with national, sub-regional and local stakeholders and statutory bodies, whose activities, programmes, and policies could have significant implications on the delivery of air quality compliance in the shortest possible time in Bath and North East Somerset. This is especially considering the global pandemic. All relationships with these bodies continue to be monitored by the Project Team and reported to the Project Board.
- 6.4 The implementation works for mobilising the scheme was capital expenditure, in line with the grant funding award. As the project has now been launched the risk that these costs, or an element of these costs, would need to revert to revenue has been eliminated.
- 6.5 If at any point revenue enforcement income and associated government grant income did not cover costs, any shortfall would ultimately need to be underwritten by the government's Joint Air Quality Unit (JAQU). Eventually, if income fell in the medium term, this would mean compliance, or success, has been gained and running costs would correspondingly be reduced to mitigate any adverse impact. It has been recognised that Government will honour the burden created following the new burdens principle (subject to the test of the burden being reasonable).
- 6.6 The costs of the scheme continue to be monitored, reviewed, and managed within available income and reports will be made to the Project Board on a regular basis.
- 6.7 The s.151 Officer and the Monitoring Officer continue to be involved in the monitoring of the scheme and have signed this report off for publication.

7 CLIMATE CHANGE

- 7.1 The Council declared a Climate Emergency in March 2019, committing it to providing the leadership necessary to enable Bath and North East Somerset to achieve carbon neutrality by 2030.

7.2 The CAZ represents a catalyst for other projects which support the Journey to Net Zero agenda and by encouraging owners and operators to replace older diesel and petrol powertrains with newer diesel, petrol, hybrid or alternatively fuelled powertrains, should help reduce vehicle-related CO2 emissions, in line with the Council's local transport policies and climate emergency declaration

8 OTHER OPTIONS CONSIDERED

8.1 None. This is a report providing an interim update on the performance of the CAZ in Bath.

9 CONSULTATION

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

Contact person	<i>Chris Major, Director of Place Management 01225 394231</i>
Background papers	<p><i>Documents published on the Council's website, including the Full Business Case, the Equalities Impact Assessment and the previous Quarterly Performance Report:</i></p> <p>https://beta.bathnes.gov.uk/policy-and-documents-library/baths-clean-air-zone</p> <p>https://beta.bathnes.gov.uk/policy-and-documents-library/clean-air-zone-equality-impact-assessment</p> <p>https://beta.bathnes.gov.uk/sites/default/files/2021-09/Appendix%20A%20Bath%27s%20Clean%20Air%20Zone%20Quarterly%20Monitoring%20Report%20Apr%20Jun%202021.pdf</p>
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