Bath & North East Somerset Council

Improving People's Lives

Cabinet

Date: **Wednesday, 15th December, 2021**
Time: **6.30 pm**
Venue: **Virtual Meeting - Zoom - Public Access via YouTube https://www.youtube.com/bathnescouncil**

Agenda

To: All Members of the Cabinet

Chief Executive and other appropriate officers
Press and Public

You are invited to attend a virtual 'informal' meeting of the Cabinet on Wednesday, 15th December, 2021 via Zoom (the link will be provided). This informal virtual meeting will help to inform the decision-making meeting on 16th December 2021. This virtual meeting will be conducted in the normal manner but, as any decisions made will not be legally enforceable, they will be formally made on 16th December 2021.

The agenda is set out overleaf.

Michaela Gay
Democratic Services
Lewis House, Manvers Street, Bath, BA1 1JG
Telephone: 01225 39 443501225 394411
Web-site - http://www.bathnes.gov.uk
E-mail: Democratic_Services@bathnes.gov.uk

NOTES:

1. **Inspection of Papers:** Papers are available for inspection as follows:

Council's website: https://democracy.bathnes.gov.uk/ieDocHome.aspx?bcr=1

2. **Details of decisions taken at this meeting** can be found in the minutes which will be circulated with the agenda for the next meeting. In the meantime, details can be obtained by contacting as above.

3. **Recording at Meetings:-**

The Openness of Local Government Bodies Regulations 2014 now allows filming and recording by anyone attending a meeting. This is not within the Council's control. Some of our meetings are webcast. At the start of the meeting, the Chair will confirm if all or part of the meeting is to be filmed. If you would prefer not to be filmed for the webcast, please make yourself known to the camera operators. We request that those filming/recording meetings avoid filming public seating areas, children, vulnerable people etc; however, the Council cannot guarantee this will happen.

The Council will broadcast the images and sounds live via the internet www.bathnes.gov.uk/webcast. The Council may also use the images/sound recordings on its social media site or share with other organisations, such as broadcasters.

4. **Public Speaking at Meetings**

The Council has a scheme to encourage the public to make their views known at meetings. They may make a statement relevant to what the meeting has power to do. They may also present a petition or a deputation on behalf of a group.

Advance notice is required not less than two full working days before the meeting. This means that for meetings held on Thursdays notice must be received in Democratic Services by 5.00pm the previous Monday.

Further details of the scheme can be found at:

https://democracy.bathnes.gov.uk/ecCatDisplay.aspx?sch=doc&cat=12942

5. Supplementary information for meetings

Additional information and Protocols and procedures relating to meetings

https://democracy.bathnes.gov.uk/ecCatDisplay.aspx?sch=doc&cat=13505

Cabinet - 6.30pm Wednesday, 15th December, 2021

Virtual Meeting - Zoom - Public Access via YouTube
https://www.youtube.com/bathnescouncil

A G E N D A

1. WELCOME AND INTRODUCTIONS

2. APOLOGIES FOR ABSENCE

3. DECLARATIONS OF INTEREST

At this point in the meeting declarations of interest are received from Members in any of the agenda items under consideration at the meeting. Members are asked to indicate:
(a) The agenda item number in which they have an interest to declare.
(b) The nature of their interest.
*(c) Whether their interest is **a disclosable pecuniary interest** or an **other interest**, (as defined in Part 2, A and B of the Code of Conduct and Rules for Registration of Interests)*
Any Member who needs to clarify any matters relating to the declaration of interests is recommended to seek advice from the Council's Monitoring Officer or a member of his staff before the meeting to expedite dealing with the item during the meeting.

4. TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIR

5. STATEMENTS, DEPUTATIONS OR PETITIONS FROM PUBLIC OR COUNCILLORS

Councillors and members of the public may register their intention to make a statement if they notify the subject matter of their statement before the deadline. Statements are limited to 3 minutes each. The speaker may then be asked by Cabinet members to answer factual questions arising out of their statement.

6. QUESTIONS FROM PUBLIC AND COUNCILLORS

Questions submitted before the deadline will receive a reply from an appropriate Cabinet member or a promise to respond within 5 days of the meeting. Councillors may ask one supplementary question for each question they submitted, up to a maximum of two per Councillor.

7. MINUTES OF PREVIOUS CABINET MEETINGS (Pages 7 - 20)

The Cabinet is asked to note the minutes of the virtual meeting held on Wednesday 10th November 2021 and the physical meeting on Thursday 11th November 2021 and forward for approval as a correct record to the meeting on Thursday 16th December 2021.

8. CONSIDERATION OF SINGLE MEMBER ITEMS REQUISITIONED TO CABINET

This is a standard agenda item, to cover any reports originally placed on the Weekly list for single Member decision making, which have subsequently been the subject of a

Cabinet Member requisition to the full Cabinet, under the Council's procedural rules

9. MATTERS REFERRED BY POLICY DEVELOPMENT AND SCRUTINY BODIES

This is a standing agenda item (Constitution rule 14, part 4D – Executive Procedure Rules) for matters referred by Policy Development and Scrutiny bodies. The Chair of the relevant PDS Panel will have the right to attend and to introduce the Panel's recommendations to Cabinet.

10. SINGLE MEMBER CABINET DECISIONS TAKEN SINCE PREVIOUS CABINET MEETING (Pages 21 - 22)

A list of Cabinet Single Member decisions taken and published since the last Cabinet meeting to note (no debate).

11. BATH CLEAN AIR PLAN- UPDATE DECEMBER 2021 (Pages 23 - 128)

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.

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.

12. CLEVELAND BRIDGE REVIEW (Pages 129 - 148)

This report provides a progress update on actions requested of officers at the September 2021 meeting of the Cabinet and some proposed recommendations.

13. BRISTOL TO BATH STRATEGIC CORRIDOR, STRATEGIC OUTLINE CASE (Pages 149 - 160)

The BBSC (Bristol to Bath Strategic Corridor) seeks to improve travel between Bath and Bristol through better bus services, improvements to bus infrastructure, and develop facilities to enable more cycling and walking services and along the A4 route, as well as to the A4 route from neighbouring communities.

We want to provide better and more sustainable transport to help people move around more easily, reduce congestion, lower carbon emissions and improve the environment we live in.

The Strategic Outline Case (SOC) establishes the potential scope of the transport proposal. This sets out the rationale for intervention (the case for change) and confirms how the investment will further our priorities and wider government ambitions (the strategic fit) to determine the 'preferred way forward'.

14. 2020/21 QUARTER 2 PERFORMANCE REPORT (Pages 161 - 174)

This report is presented using the Council's **Integrated Reporting Framework**

(IRF). It updates Cabinet on the progress made against a key set of strategic performance measures which assess our progress on delivering the Corporate Strategy and key aspects of service delivery.

The Committee Administrator for this meeting is Michaela Gay who can be contacted on 01225 394411.

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BATH AND NORTH EAST SOMERSET

CABINET

These minutes are draft until confirmed as a correct record at the next meeting.

Wednesday, 10th November, 2021

Present:

Councillor Kevin Guy	Leader of the Council, Liberal Democrat Group Leader
Councillor Dine Romero	Cabinet Member for Children and Young People, Communities and Culture
Councillor Tim Ball	Cabinet Member for Planning and Licensing
Councillor Richard Samuel	Deputy Council Leader (statutory) and Cabinet Member for Economic Development and Resources
Councillor Sarah Warren	Deputy Council Leader and Cabinet Member for Climate and Sustainable Travel
Councillor David Wood	Cabinet Member for Neighbourhood Services
Councillor Tom Davies	Cabinet Member for Adults and Council House Building
Councillor Alison Born	Cabinet Member for Adults and Council House Building
Councillor Manda Rigby	Cabinet Member for Transport

67 WELCOME AND INTRODUCTIONS

The Chair, Councillor Kevin Guy, welcomed everyone watching and participating at the virtual Cabinet meeting. The Chair made the following statement:

"*Due to rise in Covid numbers, and to a desire to retain a level of social distancing at Council meetings, we are holding this 'informal' virtual Cabinet meeting to enable Cabinet, Councillors and members of the public to take part. This virtual meeting will be conducted in the normal manner but, as any decisions made will not be legally enforceable, they will be formally made at the physically reduced, quorate decision-making meeting tomorrow on 11th November 2021. We will review this approach for any future Cabinet meetings, in line with government and health guidance at that time.*"

The Chair asked each of the Cabinet Members to introduce themselves.

The Chair thanked the Democratic Services Officer Jack Latkovic for his work with the Council.

68 APOLOGIES FOR ABSENCE

There were none.

69 DECLARATIONS OF INTEREST

There were none.

70 TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIR

There was none.

71 QUESTIONS FROM PUBLIC AND COUNCILLORS

There were 31 questions from Councillors and 2 questions from a member of the public.

[Copies of the questions and responses, including supplementary questions and responses if any, have been placed on the Minute book and are available on the Council's website.]

72 STATEMENTS, DEPUTATIONS OR PETITIONS FROM PUBLIC OR COUNCILLORS

Graham Pristo made a statement regarding transport matters and the city's economy.

Martin Grixoni made a statement regarding Bath business challenges. [*a copy of which is attached to the Minutes on the Council's website*]

Lynda Lloyd made a statement regarding Blue Badge access to the City Centre [*a copy of which is attached to the Minutes on the Council's website*]

Bob Goodman made a statement regarding environmental issues [*a copy of which is attached to the Minutes on the Council's website*]

David Redgewell made a statement regarding transport and planning [*a copy of which is attached to the Minutes on the Council's website*]

Councillor Jackson made a statement regarding the SACRE syllabus [*a copy of which is attached to the Minutes on the Council's website*]

Councillor Pritchard in a statement regarding access issues in the city centre.

Supplementary Information

73 MINUTES OF PREVIOUS CABINET MEETING

It was **RESOLVED** to recommend the approval of the minutes of 9th September 2021 to Cabinet on 11th November 2021.

74 CONSIDERATION OF SINGLE MEMBER ITEMS REQUISITIONED TO CABINET

There were none.

75 MATTERS REFERRED BY POLICY DEVELOPMENT AND SCRUTINY BODIES

There were none.

76 SINGLE MEMBER CABINET DECISIONS TAKEN SINCE PREVIOUS CABINET MEETING

It was **RESOLVED** to recommend that the Cabinet on 11th November 2021 note the report.

77 VIRGIN CARE CONTRACT EXTENSION - OPTIONS APPRAISAL

Councillor Alison Born introduced the report and made the following statement:

"*This report sets out an options appraisal to help the Council and CCG, as joint commissioners, decide whether they wish to extend the Virgin Care contract for the delivery of integrated health care, social care and public health services in B&NES. By way of background, the contract for community health and Care services for Bath and North East Somerset was awarded to Virgin Care in 2016 at the end of a comprehensive engagement and commissioning process known as "Your Care Your Way".*
The contract was for an initial 7 years with the option to extend for a further 3 years. A decision regarding the extension must be made and communicated to Virgin Care by the end of March 2022. The decision to extend is a joint one with the CCG as it is a shared contract. The potential extension will take the term of the contract up to the end of March 2027.
A review of the services provided by Virgin Care has been undertaken and that information, together with an evaluation of the current health and social care landscape has informed the detailed options appraisal required for the Cabinet and the CCG Board to make an informed decision. The CCG is also meeting this week to consider the options paper.
The 3 options considered are:
Option 1 – To extend the contract with no changes
Option 2 – To not extend the contract
Option 3 – To extend the contract with the statutory functions of CHC and Adult Safeguarding returning to the CCG and the Council
Option 3 is recommended for the following reasons:

- *Virgin Care has generally provided good services, more recently (in the context of the pandemic) in very challenging circumstances and has worked constructively with partners across health and social care.*

- *It has also made some significant improvements to services since it took on the community contract in 2017, examples include the introduction of electronic care records, developments within stroke services and district nursing.*

- *This is a particularly challenging time for health and social care and services must focus on reform and recovery from the pandemic.*

- *NHS commissioning is currently transitioning to the new integrated care arrangements and further disruption within provider services would be destabilising at this time. It should be done if it is necessary, but it isn't. It is also unlikely that there will be other providers with the right experience able to take this work on within the timescale required.*

- *We must keep the needs of service users foremost in our minds and It makes most sense at this time to opt for stability and continuity by extending the contract for a further 3 years with the withdrawal of the statutory services and with the requirement that Virgin Care makes improvements in some areas such as waiting times, length of stay and in the provision of the reablement service.*

These 3 options have been considered and discussed by the Children, Adults, Health and Wellbeing Scrutiny panel, where option 3 received unanimous, cross - party support. The contract extension allows time for a very thorough process to determine the services that will be commissioned in 2027 and that work will begin once this decision is made".

Councillor Alison Born moved the recommendations.

Councillor Richard Samuel seconded the motion and made the following points:

"*The original contract signed in 201718 allowed for a contract extension of three years. Extension subject to satisfactory review on performance.*
Seven years expires in 2023/24 and the decision to extend or otherwise has to be made in sufficient time to allow for contract retendering were that to be the preferred option. That point is now as Virgin have, under the contract, to be given 24 months' notice of that decision. My understanding is that performance has been satisfactory. In advancing the recommendation other factors are also relevant for the council although not strictly part of the decision. It will have escaped no-one's notice that the council's revenue budget is under considerable pressure due to covid and that there is a considerable cost to a retender. It is also the case that major changes in the arrangements for adult social care are in the pipeline. In these circumstances it is my view that a retender exercise would place additional demands on already stretched officer capacity and that given the acceptable performance on this contract it is more prudent to extend it than to embark on a costly tender process.
I therefore second the recommendations in this report accordingly".

Councillor Dine Romero stated that Virgin Care have been responsible for a wide range of services since 2017 including the school immunisation programme. They have stepped up to the plate during the pandemic. Councillor Romero added that she supported the motion and did not think it was the time to make extreme changes.

RESOLVED (unanimously) to recommend that the Cabinet on 11th November 2021:

1.1 Approve Option 3 - Extend the contract term for the 3 year period (until 31st March 2027) but with identified services removed from block contract and/or improvement trajectories for identified services and delegate to Suzanne Westhead, Director Adult Social Care (DASS) in consultation with Cllr Born, Member for Adult Services authority to serve notice to extend the contract once assured that the total price for the contract as varied is agreed and affordable.

1.2 Note that an extra-ordinary B&NES, Swindon and Wiltshire Clinical Commissioning Group (BSWCCG) Governing Body meeting has been convened for a decision to be taken on 11th November 2021, to ensure a joint decision is taken in public on the same day, for the recommendation of Option 3 - Extend the contract term for the 3 year period (until 31st March 2027) but with identified services removed from block contract and/or improvement trajectories for identified services.

1.3 Note the following risks:

- Contractual deadline of 31st March 2022 to inform Virgin Care of the decision to extend the contract for the 3 year term or not – limited time for slippage in the decision making process.

- Consideration of the current contractual interdependencies between heath care and social care commissioning and service delivery. The Council and CCG have a long history of integrated commissioning arrangements with a number of services which have jointly agreed service specifications to deliver integrated services, for example reablement.

- As joint commissioners both B&NES Council and BSWCCG must agree on the option that is decided upon – if an agreement cannot be reached this will cause further delay in the decision making process.

78 COUNCIL HOUSE BUILDING PROGRAMME

Councillor Tom Davies introduced the report and made the following statement:

"In 2019 we all made a commitment to the residents of Bath & North East Somerset - a commitment that we as a LibDem administration would build the first general needs Council Houses in our area for a generation.

Tonight, we as a Cabinet are here to deliver on this commitment as we approve the first phase of this new Council House building programme and I am delighted to be here proposing this paper.

And as we sit here tonight considering this item, never has the need for new Council Houses been so great. As an area with some of the least affordable housing in the country, thousands of our local residents are currently on our social housing waiting list, hundreds of them in the categories of highest need.

As the paper in front of us shows - the Council has and will continue to play a key role in enabling new social and affordable housing to be built and delivered in our area by developers including our local housing association partners. With the Council playing this enabling role, nearly 2,000 affordable homes have been delivered in our area over the last ten years. Furthermore the Council is already working to deliver a programme of around 50 units of accommodation including supported housing and shared-ownership housing.

But the scale of the need means that it is vital that the Council now plays a new role and takes on a new responsibility - a role in which it utilises some of its own assets and becomes responsible for directly delivering and owning new general needs Council Houses for social rent for our residents. This is what we are here tonight as a Cabinet to approve.

And people listening tonight should be under no illusion as to the scale of this LibDem administration's ambition for the role the Council can play in this area.

Tonight we consider the first 58 general needs homes across eight sites, but over the coming months we will be developing plans for the delivery of hundreds of additional Council Houses in our area over the coming years.

Under the Liberal Democrats, this Council will become a leading provider of social housing in our area - housing of which we are proud - housing of high quality and which, in its design, construction and on-going maintenance, meets our obligations under the ecological and climate emergency declarations which we have made.

And I would also like to stress that whilst we have been advised that due to aspects of commercial confidentiality we have had to keep the specific details of the sites being considered out of the public papers for tonight's Cabinet, any Councillor who wishes to see the list of proposed sites, need only contact the Head of Housing and he will happily arrange to meet with them to share this information. Furthermore, I would stress that any site development will of course be subject to the full planning application process and associated public engagement.

Believe me - we are proud of our commitment to deliver Council houses and have nothing to hide.

Finally, I would like to extend a particular thank you to the officers and my cabinet colleagues who have worked tirelessly to bring us to this stage where we are about to approve this first phase of general needs Council Houses.

Specifically I would like to say thank you to Graham Sabourn, Nick Plumley, Simon Martin and Sophie Broadfield and to my Cabinet colleagues, a particular thank you goes to Cllr Ball who started this work and to Cllr Samuel who has supported me throughout the development of this programme and who is seconding this paper.

And so, on that note, I would like to move this paper and call upon my colleagues to agree to the recommendations as we, together, deliver the first Council Houses in our area for a generation".

Councillor Tom Davies moved the recommendations.

Councillor Richard Samuel seconded the motion and made the following points:

"*The Conservatives broke the long-standing cross-party consensus on building council housing in the 1980s when they introduced increasingly more punitive*

finance regimes that militated against councils holding their own stock and introduced the right to buy. This ideological policy was born from political desires to downgrade the role of local government in the provision of low-cost social housing for rent. This harsh finance regime led to well over a hundred councils transferring their stock to housing associations where more benign finance arrangements applied. This council was one of the many that made that decision in the 1990s.
In the years that have followed we have seen a steady but inexorable decline in the building of truly affordable homes by social landlords as both labour and conservative governments progressively eroded the ability of councils to return to the building of new council housing. Even today the financial arrangements make it very hard to build new council housing.
So, it is against this background that Liberal Democrats set out in 2019 to chart a different course and begin to build new council housing against for the first time in a generation. This has been an exceptionally difficult path to navigate because hardly any stock transfer councils have done this. New ground is being broken. In the past two and half years delays due to covid and the market turbulence caused by Brexit has seriously impacted on the work programme.
But today we are at a new dawn when this council starts to provide new homes directly itself for the most needy in society. It is to be hoped that other council groups get behind this policy in the coming years as the stock grows.
I will be making provision for this new programme in the 2022/23 and 2023/24 capital budgets to ensure that once again this council becomes the proud provider of social homes for local residents at rents they can afford and with the security that they deserve.
Chair I am proud to second this report, and I commend all those who have worked with my colleague Councillor Davies to make it a reality".

Councillor Tim Ball stated that the Council and the administration should be proud to see this coming forwards as rented accommodation in the area is expensive. Councillor Davies has worked hard on this.

Councillor Kevin Guy stated that this was an amazing achievement.

RESOLVED (unanimously) to recommend that the Cabinet on 11th November 2021 agree:

1.4 The eight sites identified in Appendix 1 are progressed as 100% affordable housing sites, including 117 Newbridge Hill, and in accordance with the delivery route detailed in the report;

1.5 Fully approve £413K from Provisional Affordable Housing Budget in 2021/22 to immediately progress scheme development work on five sites with funding coming from earmarked Right to Buy Receipts

1.6 The balance of funding of £11.73m identified in Appendix 2, will be incorporated into 2022/23 budget setting with approval subject to a full business case and confirmation of grant awards.

1.7 Individual scheme business cases will be authorised through the existing capital processes and in consultation with the relevant Cabinet Member.

79 TREASURY MANAGEMENT MONITORING REPORT TO 30TH SEPTEMBER 2021

Councillor Richard Samuel introduced the report and made the following statement:

"*This is the regular report received by cabinet that covers the quarter to the end of September for noting by the cabinet. However, I would draw the cabinet's attention to the ESG funds now placed following the review of the opportunities posed in the market. This confirms the council's strong desire to move away from investments linked to fossil fuel depletion. In that regard I noted that the media reported over the weekend that these investments where held could become worthless in the next two decades*".

Councillor Samuel moved the recommendations.

Councillor Sarah Warren seconded the motion

RESOLVED (unanimously) to recommend that the Cabinet on 11th November 2021 agree:

1.8 The Treasury Management Report to 30th September 2021, prepared in accordance with the CIPFA Treasury Code of Practice, is noted.

1.9 The Treasury Management Indicators to 30th September 2021 are noted.

80 REVENUE & CAPITAL BUDGET MONITORING, CASH LIMITS AND VIREMENTS – APRIL TO SEPTEMBER 2021

Councillor Richard Samuel introduced the report and made the following statement:

"In 2019 I set the overriding objective that the council's revenue budget was to balance year on year and at the same time be closely monitored in public. This was to ensure that our residents could be confident that this Liberal Democrat administration was managing public funds prudently and transparently. Persistent overspending and waste accrued from the previous administration had, in my view, undermined the bond of trust that should exist between council and taxpayers. Recently I have seen former councillors unwisely comment on the former Visit Bath arrangements, conveniently forgetting that that administration allowed well over £500k of bad debts to accrue which it was necessary to write off. That is the sort of sloppy governance that I am determined to avoid.
Before I introduce the report, I must reiterate the context we are still operating in. Significant reductions in income from Heritage Services because of the need to manage down visitor numbers are still present. Although the government seems to think that the pandemic has gone away B&NES is currently the 7th highest outbreak

incidence in the UK. At the same time downward pressure on income from the council's commercial estate remains a concern – reflecting the understandable pressures on our tenants imposed by the government's restrictions.
In social services we have seen huge increases in demand for Children's services whilst at the same time we are seeing reductions in demand for Adult services. This turbulence is a constant current feature of our management of the council's finances, and we are using covid contingency funding to smooth matters.
Given these factors we are expecting the revenue budget to remain on balance for the 11th successive quarter and to balance at year end without the need to draw from the general contingency reserve. This is a considerable achievement by the cabinet members and their officers which I thank and commend.
On capital there is some slippage against the programme mainly associated with Bath Western Riverside, but the project is underway and re-phasing will take place into 22/23. Members will also note the major works scheme due to commence on Orange Grove to improve and repair the envelope to this important terrace".

Councillor Richard Samuel moved the recommendations.

Councillor Kevin Guy stated Councillor Samuel has balanced the books in the difficult time and thanked him. Councillor Guy seconded the motion.

RESOLVED (unanimously) to recommend that the Cabinet on 11th November 2021:

1.10 Note the 2021/22 revenue budget position (as at the end of September 2021).

1.11 Note the revenue virements listed for information only in Appendix 3(i).

1.12 Note the capital year-end forecast detailed in paragraph 3.25 of this report;

1.13 Note the changes in the capital programme including capital schemes that have been agreed for full approval under delegation listed in Appendix 4(i).

The meeting ended at 19:33

Chair _____

Date Confirmed and Signed _____

Prepared by Democratic Services

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BATH AND NORTH EAST SOMERSET

CABINET

These minutes are draft until confirmed as a correct record at the next meeting.

Thursday, 11th November, 2021

Present:

Councillor Kevin Guy	Leader of the Council, Liberal Democrat Group Leader
Councillor Richard Samuel	Deputy Council Leader (statutory) and Cabinet Member for Economic Development and Resources
Councillor Sarah Warren	Deputy Council Leader and Cabinet Member for Climate and Sustainable Travel
Councillor Tom Davies	Cabinet Member for Adults and Council House Building
Councillor Alison Born	Cabinet Member for Adults and Council House Building

81 WELCOME AND INTRODUCTIONS AND EMERGENCY EVACUATION PROCEDURES

The Chair, Councillor Kevin Guy, welcomed everyone to the meeting and made the following statement:

"This meeting is being held as part of the contingency arrangements put in place, recognising the need to remain cautious. For this reason, there is only a quorum of Cabinet Members in the Chamber this meeting. A virtual 'informal' meeting of the full Cabinet took place last night to inform voting at this meeting.

That meeting is available to view on the Council's YouTube channel."

The Democratic Services Officer read the Emergency Evacuation Procedure.

82 APOLOGIES FOR ABSENCE

There were none.

83 DECLARATIONS OF INTEREST

There were none.

84 TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIR

There was none.

85 STATEMENTS, DEPUTATIONS OR PETITIONS FROM PUBLIC OR COUNCILLORS

The Chair explained that members of the public and Councillors who wished to make a statement did so at the virtual meeting on 10th November 2021. Their statements

and questions (including supplementary questions) will be linked to the record of the physical meeting so that a 'complete' record is kept for the 10th and 11th November meetings.

86 QUESTIONS FROM PUBLIC AND COUNCILLORS

The Chair stated that the Question-and-Answer sheet (with any supplementary questions) will be published with the minutes.

87 MINUTES OF PREVIOUS CABINET MEETING

RESOLVED that the minutes of the meeting held on 9th September 2021 be confirmed as a correct record and signed by the Chair.

88 CONSIDERATION OF SINGLE MEMBER ITEMS REQUISITIONED TO CABINET

There were none.

89 MATTERS REFERRED BY POLICY DEVELOPMENT AND SCRUTINY BODIES

There were none.

90 SINGLE MEMBER CABINET DECISIONS TAKEN SINCE PREVIOUS CABINET MEETING

The Cabinet agreed to note the report.

91 VIRGIN CARE CONTRACT EXTENSION - OPTIONS APPRAISAL

On a motion from Councillor Alison Born, seconded by Councillor Richard Samuel, it was

RESOLVED (unanimously) that the Cabinet agreed to:

1.1 Approve Option 3 - Extend the contract term for the 3 year period (until 31st March 2027) but with identified services removed from block contract and/or improvement trajectories for identified services and delegate to Suzanne Westhead, Director Adult Social Care (DASS) in consultation with Cllr Born, Member for Adult Services authority to serve notice to extend the contract once assured that the total price for the contract as varied is agreed and affordable.

1.2 Note that an extra-ordinary B&NES, Swindon and Wiltshire Clinical Commissioning Group (BSWCCG) Governing Body meeting has been convened for a decision to be taken on 11th November 2021, to ensure a joint decision is taken in public on the same day, for the recommendation of Option 3 - Extend the contract term for the 3 year period (until 31st March 2027) but with identified services removed from block contract and/or improvement trajectories for identified services.

1.3 Note the following risks:

- Contractual deadline of 31st March 2022 to inform Virgin Care of the decision to extend the contract for the 3 year term or not – limited time for slippage in the decision making process.

- Consideration of the current contractual interdependencies between heath care and social care commissioning and service delivery. The Council and CCG have a long history of integrated commissioning arrangements with a number of services which have jointly agreed service specifications to deliver integrated services, for example reablement.

- As joint commissioners both B&NES Council and BSWCCG must agree on the option that is decided upon – if an agreement cannot be reached this will cause further delay in the decision making process.

92 COUNCIL HOUSE BUILDING PROGRAMME

On a motion from Councillor Tom Davies, seconded by Councillor Richard Samuel, it was

RESOLVED (unanimously) that the Cabinet agree:

1.4 The eight sites identified in Appendix 1 are progressed as 100% affordable housing sites, including 117 Newbridge Hill, and in accordance with the delivery route detailed in the report;

1.5 Fully approve £413K from Provisional Affordable Housing Budget in 2021/22 to immediately progress scheme development work on five sites with funding coming from earmarked Right to Buy Receipts

1.6 The balance of funding of £11.73m identified in Appendix 2, will be incorporated into 2022/23 budget setting with approval subject to a full business case and confirmation of grant awards.

1.7 Individual scheme business cases will be authorised through the existing capital processes and in consultation with the relevant Cabinet Member.

93 TREASURY MANAGEMENT MONITORING REPORT TO 30TH SEPTEMBER 2021

On a motion from Councillor Richard Samuel, seconded by Councillor Sarah Warren, it was

RESOLVED (unanimously) that the Cabinet agreed:

1) The Treasury Management Report to 30th September 2021, prepared in accordance with the CIPFA Treasury Code of Practice, is noted.
2) The Treasury Management Indicators to 30th September 2021 are noted.

94 REVENUE & CAPITAL BUDGET MONITORING, CASH LIMITS AND VIREMENTS

– APRIL TO SEPTEMBER 2021

On a motion from Councillor Richard Samuel, seconded by Councillor Kevin Guy, it was

RESOLVED (unanimously) that the Cabinet agreed:

1) To note the 2021/22 revenue budget position (as at the end of September 2021).

2) To note the revenue virements listed for information only in Appendix 3(i).

3) To note the capital year-end forecast detailed in paragraph 3.25 of this report;

4) To note the changes in the capital programme including capital schemes that have been agreed for full approval under delegation listed in Appendix 4(i).

The meeting ended at 11.35 am

Chair _____

Date Confirmed and Signed _____

Prepared by Democratic Services

Bath & North East Somerset Council

Cabinet Single-Member Decisions and Responses to Recommendations from PDS Panels

published from 17th Nov 2021until 7th Dec 2021

Further details of each decision can be seen on the Council's Single-member Decision Register at http://democracy.bathnes.gov.uk/mgDelegatedDecisions.aspx?&dm=3

Household Support Fund

A decision on how to use funding provided by the Department for Work and Pensions to help vulnerable households this winter.

The Cabinet Member agrees that the grant funding will be allocated as follows.

£320,000 to continue the Free School Meal voucher scheme for the October, Christmas, and February half term periods in 2021/22.

£100,000 will be provided to Citizens Advice Bath and North East Somerset to fund the Fuel Voucher Scheme

£547,000 will be allocated to provide support to vulnerable residents with energy costs through issuing prepaid debit cards and associated administrative costs.

Reasons for the decision:

The cost of energy has risen sharply over the last year due to worldwide energy supply issues. Whilst there is good provision for support with food and housing costs for B&NES residents, support for help with energy is less available. The council should therefore focus on this area of need.

Decision Maker: Cabinet Member for Economic Development and Resources
Decision status: Approved

Publication date: 18/11/2021
Date of decision: 18/11/2021
Effective from: 26/11/2021

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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 (NO_2), 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 (NO_2) concentrations within the CAZ are 14 per cent lower than the same period in 2019 (Q3), representing a reduction of -4.1 µg/m^3. 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 NO_2 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/m^3, 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 NO_2 concentrations over 40 µg/m^3 and twelve fewer monitoring locations over 36 µg/m^3.

- Acknowledging the progress in achieving success after 6 months of operation, quarterly average concentrations of NO_2 at nine monitoring sites still recorded results greater than 40 µg/m^3, 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 NO_2 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 NO_2 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 in 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 NO_2 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	*Chris Major, Director of Place Management 01225 394231*
Background papers	*Documents published on the Council's website, including the Full Business Case, the Equalities Impact Assessment and the previous Quarterly Performance Report:* *https://beta.bathnes.gov.uk/policy-and-documents-library/baths-clean-air-zone* *https://beta.bathnes.gov.uk/policy-and-documents-library/clean-air-zone-equality-impact-assessment* *https://beta.bathnes.gov.uk/sites/default/files/2021-09/Appendix%20A%20Bath%27s%20Clean%20Air%20Zone%20Quarterly%20Monitoring%20Report%20Apr%20Jun%202021.pdf*
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Bath Clean Air Zone
Quarterly Monitoring Report
July - September 2021

Bath & North East Somerset Council

Improving People's Lives

CONTENTS

Acronyms and Abbreviations

ANPR	Automatic Number Plate Recognition
AQMA	Air Quality Management Area
AQO	Air Quality Objective
ASR	Annual Status Report
ATC	Automatic Traffic Counter
AURN	Automatic Urban and Rural Network
BID	Business Improvement District
B&NES	Bath and North East Somerset Council
CAF	Clean Air Fund
CAP	Clean Air Plan
CAZ	Clean Air Zone
CSF	Critical Success Factor
CVRAS	Clean Vehicle Retrofit Accreditation Scheme
DEFRA	Department for the Environment, Food and Rural Affairs
DfT	Department for Transport
DVLA	Driver and Vehicle Licensing Authority
EU	European Union
FBC	Full Business Case
HGV	Heavy Goods Vehicle
JAQU	Joint Air Quality Unit
LAQM	Local Air Quality Management
LEP	Local Enterprise Partnership
LEV	Low Emissions Vehicle
LGV	Light Goods Vehicle
MTC	Manual Classified Counts
NO	Nitrogen Oxide
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
OS	Ordnance Survey
PCM	Pollution Climate Mapping
PCN	Penalty Charge Notice
PHGV	Private Heavy Goods Vehicle
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with particles less than 2.5 micrometers diameter
PM_{10}	Particulate Matter with particles less than 10 micrometers diameter
PRMS	Public Realm and Movement Strategy
TEA	Triethanolamine
TG	Technical Guidance
TMP	Traffic Management Plan
UK	United Kingdom
ULEV	Ultra-Low Emissions vehicle
UTC	Urban Traffic Control
UTMC	Urban Traffic Management and Control
VAT	Value Added Tax
WHO	World Health Organisation

Executive summary

In 2017, the Government directed Bath & North East Somerset (B&NES) Council to reduce nitrogen dioxide (NO_2) pollution in Bath to within the annual average limit of 40 micrograms per cubic metre ($\mu g/m^3$) in the shortest possible time, and by the end of 2021 at the latest.

This type of pollution is chiefly caused by road traffic, and extensive technical work showed that a charging clean air zone would be the only way to achieve success in the time frame. Clean air zones work by deterring certain higher emission vehicles from entering areas of high pollution by levying a daily charge on the driver, encouraging a more rapid replacement of polluting vehicles for cleaner, compliant ones than would otherwise naturally occur.

On 15 March 2021, the Council introduced a charging Class C Clean Air Zone (CAZ) in Bath's city centre to drive down NO_2 pollution at several locations which regularly exceed these NO_2 limits, in particular risking children's health and the health of our most vulnerable residents. In a Class C CAZ, private cars and motorbikes are not charged, regardless of emissions.

In Bath, significant financial support has been made available to individuals and businesses to replace non-compliant, chargeable vehicles regularly driving in the zone, and around 600 polluting vehicles have already been replaced using government funds. More information on how the CAZ works can be found in 'How to use this report'.

Aims and limitations of this report

This report provides an update and indicative view of the CAZ's performance during July to September 2021 (Quarter 3). It looks at impacts on air quality, traffic flow and vehicle compliance. It does not report comprehensively on all aspects of the zone, nor does it draw any conclusions about success with the Government's directive, all of which will be included in the Clean Air Zone Annual Report to be released in 2022.

Due to Covid-19 having an unprecedented impact on travel behaviour in 2020, baseline data from the last representative year (2017-2019) has been used to measure the impact and effectiveness of the zone. Due to seasonal effects, we also compare against similar seasons in this initial quarterly report, in this case the third quarter of the year (July to September), referred to as Q3.

You can find out more about how we measure and present the data in the section 'How to use this report'; and there is a more detailed explanation of how we monitor at the end of the report in the 'Monitoring explained' section.

Key findings

- 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, and improving the city's air quality in general.

- Average nitrogen dioxide (NO_2) concentrations within the CAZ are 14 per cent lower than the same period in 2019 (Q3), representing a reduction of -4.1 µg/m^3. 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).

- Compared with the same quarter in 2019, six fewer locations in Bath are now recording quarterly annual average levels of NO_2 concentrations over 40 µg/m^3 and twelve fewer locations are recording over 36 µg/m^3.

- Similar levels of NO_2 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/m^3, from a total of 41 CAZ_Boundary monitoring sites that recorded full quarterly data from July to September in both 2019 and 2021.

- Acknowledging this general improvement, quarterly average concentrations of NO_2 at nine monitoring sites still record results greater than 40 µg/m^3. The average change between these nine sites was 0.7 µg/m^3 or a 1.6 per cent increase.

- Of the nine sites which recorded an average NO_2 concentration greater than 40 µg/m^3 during the current quarter, four sites (Gay Street Lower, Walcot Parade 2, Gay Street 2 and Upper Bristol Road 4) recorded lower average NO_2 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 NO_2 concentration.

- 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.

- Of the four sites recording a quarterly average greater than 40 µg/m^3 and with an increase in NO_2 concentration when compared to the baseline quarter (2019 Q3), Wells Road increased by 1.3 µg/m^3 to 48.2 µg/m^3 (an increase of 3%), Victoria Buildings increased by 3.2 µg/m^3 to 44.2 µg/m^3 (an increase of 8%), Broad Street 4 increased by 6.9 µg/m^3 to 43.1 µg/m^3 (an increase of 19%), Chapel Row 2 increased by 9.0 to 48.9 µg/m^3 (an increase of 23%).

- Of the five sites which recorded an average NO_2 concentration greater than 40 µg/m^3 and with a reduction or stable change in NO_2 concentration when compared to 2019 Q3, Dorchester Street remained stable at 47.0 µg/m^3, Gay Street

Lower decreased by 1.6 µg/m^3 to 41.6 µg/m^3 (a decrease of 4%), Walcot Parade 2 decreased by 10.4 µg/m^3 to 45.5 µg/m^3 (a decrease of 19%), Gay Street 2 decreased by 0.7 to 42.7 µg/m^3 (a decrease of 2%) and Upper Bristol Road 4 decreased by 1.5 µg/m^3 to 41.2 µg/m^3 (a decrease of 4%).

- It is important to remember these results are quarterly and so do not determine whether the scheme is successful. Some of these quarterly averages include quarters where one or more months of data is missing, which can skew the average. The full data is presented later in this report. Data may be missing for multiple reasons including damaged diffusion tubes or invalid results.

- Our primary focus now is monitoring the traffic and air quality in locations with high quarterly NO_2 concentrations and researching what additional action is required to tackle these problem areas and any upward trends in NO_2 concentration. Diversions, roadworks and an ongoing reluctance of residents/visitors to the city to use public transport due to high levels of Covid-19 in the area, may be contributing to the situation.

- This report refers to the quarter of July to September, during which Cleveland Bridge has been closed for the entirety of the period (since 28th June 2021).

- 91% of all taxis travelling in the zone are now compliant, whereas only 67% of taxis were compliant prior to the launch of the zone. By the end of September 2021, 82 higher polluting taxis have been replaced with cleaner, compliant ones with support from the Financial Assistance Scheme.

- Out of a total fleet of 226 scheduled buses, 87 were non-compliant when the bus retrofit programme started. By the end of September, 84 had been successfully retrofitted to meet CAZ emission standards with financial support from the government. Three vehicles are awaiting a retrofit solution which is now in development.

- An average of 40,358 individual vehicles were seen in the zone each day during the quarter, which is comparable to the 40,799-daily average for 2021 Q2.

- Many vehicles recorded in the zone are private cars, with an average of 29,485 unique private cars seen in the zone each day during 2021 Q3. This equates to 72% of all unique vehicles in the CAZ.

- An average of 709 non-compliant vehicles (including all non-compliant vehicle classes) were seen in the zone each day, during 2021 Q3 compared to 1742 during the launch week in March, a decrease of 59%.

- 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.

- Nationally, average traffic volumes returned to at least pre-pandemic levels and usage of LGVs and HGVs on the network are now exceeding pre-pandemic levels (Department for Transport).

- Average traffic flows within the CAZ have probably returned to around pre-pandemic levels, however the closure of Cleveland Bridge has impacted traffic flows around Bath. The two sites for which we have both baseline and current data show a 12% decrease in traffic when compared to the baseline, but we do not believe this sample (which is the only like-for-like comparison available for this quarter, due to the temporary nature of some traffic counters) to be representative of the overall quarterly traffic flows. See the section 'Traffic flow data results' for more information.

- Average traffic flows in the urban areas outside the zone's boundary, which include Batheaston and Bathampton, were 2% lower than the baseline.

- Average traffic flows across the Wider B&NES region were 1% lower than the baseline.

- Whilst many residents and businesses are upgrading using their own resources or as part of planned replacement programmes, the Council has to date received over 2,500 enquiries about its financial assistance scheme (FAS) which offers local businesses and individuals grants and interest-free loans to replace or upgrade non-compliant vehicles regularly driving in the zone.

- 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. As a result, the number of chargeable, non-compliant vehicles seen in the zone has fallen.

*Covid-19 pandemic conditions continue to effect traffic flows and travel behaviours. Further analysis and time will be required to assess the longer-term impact of the pandemic on air quality.

How to use this report

This report provides an update and indicative view of the CAZ's performance during July to September 2021 (Quarter 3). The main areas we discuss are:

- air quality data
- traffic flow data
- and fleet compliance data

This report does not attempt to establish whether compliance (now termed 'success') with the Government's direction has been met. Neither is it a comprehensive report on all aspects of the clean air zone, including its mitigation measures or data relating to CAZ operations or income (such as income from charges and fines etc).

Further information will be included in the Clean Air Zone Annual Report, published as soon as possible in 2022, and/or in other subsequent quarterly reports later in the year.

Timescales and baseline data

To determine the effectiveness of the CAZ, we compare the latest data collected since the start of the CAZ with baseline data from similar periods before its launch.

And because we need to consider seasonal effects on both air quality and traffic flows, we compare like-for-like data from previous years, breaking the year into quarters:

- Quarter 1 (Q1) – January, February, March
- Quarter 2 (Q2) – April, May, June
- Quarter 3 (Q3) – July, August, September
- Quarter 4 (Q4) – October, November, December

The primary focus of this report is the third quarter (Q3) of 2021. Given the unprecedented conditions brought about by the Covid-19 pandemic in 2020 (including significant changes in transport and travel behaviour), we have discounted 2020 figures for comparative purposes, unless otherwise stated in the report.

When reading the report please note the following:

- All 2021 air quality data is provisional until the release of the annual CAZ report in 2022.
- We use data from 2019 to compare air quality monitoring results.
- Air pollution is affected by the seasons, therefore baseline air quality data for this report is from July to September 2019 i.e. the third quarter (Q3)
- We use data from 2017/18 for comparing traffic flows, because the Council has insufficient data for some periods including 2019.

- Traffic flows also vary according to the seasons, so we compare current traffic flow data from with data from July to September (Q3) 2017/18.
- We also compare data from March 2021 (the launch of the zone) until the end of September 2021 (the end of the reporting period).
- We also look at longer-term trends from 2017 to end of June 2021.

Where we gather data from/what locations

We have identified three site groupings for comparison of data and to establish the impact of the zone on traffic flows and air quality both inside and outside of the CAZ:

- The clean air zone (sites within the CAZ boundary which we call 'CAZ_Only')
- The boundary area (sites outside the CAZ boundary but within the urban area of Bath including Batheaston and Bathampton, which we call 'CAZ_Boundary')
- The wider area (sites outside of the Bath, Batheaston and Bathampton urban areas, but within the rural areas and district-wide urban areas in Bath & North East Somerset, which we call 'Wider_B&NES')

Climate summary July – September 2021

Air pollution is affected by meteorological conditions. This is a brief roundup of the monthly climate for this quarter, as described from the Met Office.

- July began unsettled with cool and wet weather but became dry and warm by mid-month with hot temperatures and lots of sunshine. The mean temperature was above the 1981-2010 long-term average.
- August was mostly cool and unsettled to begin with, while the second half of the month was drier and calmer. Temperatures were around average for the month and sunshine levels were below average.
- September was largely settled and warm, with a higher-than-average mean temperature for the month.

As most (approximately 80%) of NO_2 from vehicle emissions occurs as a result of chemical reactions after being emitted as nitric oxide (NO), meteorological conditions are a significant factor in the resulting measured concentrations. NO_2 is usually higher in winter due to the cooler temperatures of catalysts, significantly compromising the reduction of NOx from emissions. Heatwaves also increase levels of NO_2. Long periods of unusual weather can result in annual measured concentrations becoming an outlier in a long-term trend.

Air quality data in this report is provisional and has not been adjusted to take account of weather conditions – a process known as de-weathering. This process is used to remove the impact of weather variations from trends so that we can see the impact of other measures such as the implementation of the CAZ or a lockdown.

Find more climatic information at:
https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries/index

Cleveland Bridge closure

Cleveland Bridge was closed to all traffic on 28 June 2021 for emergency repairs. The bridge usually carries around 17,000 vehicles per day, and so the closure has affected traffic flows throughout Bath.

Diversionary routes have been affecting traffic flows, and therefore air quality around the city. We are monitoring several areas that are experiencing abnormal conditions due to the bridge closure. Once the bridge has fully re-opened in 2022, we will continue to monitor these locations to assess the situation. Find more information at: https://beta.bathnes.gov.uk/cleveland-bridge-renovation-project/scheme-overview

Covid-19 and air quality

- Multiple lockdowns in response to the Covid-19 pandemic had a significant effect on transport and travel behaviour, locally and nationally, which is why we've discounted 2020 data (unless otherwise stated).
- National traffic volumes have returned to pre-pandemic levels and in the case of LGVs and HGVs, pre-pandemic levels are being exceeded.
- Covid-19 is still influencing how people behave. There are lower rates of public transport use and higher rates of home-working and commuting by car.
- Online shopping and home-deliveries are increasing, which is leading to more commercial vehicles on the roads. In mid-September 2021, light goods vehicles increased to 112% of their pre-pandemic levels whilst heavy goods vehicles increased to 110% and cars reduced to 97%, respectively (Department for Transport statistics)[1].

Further information

- You'll find more information on how we've measured and compared data in each individual section.

- As part of our obligations under the Local Air Quality Management (LAQM) legislation (part IV of Environment Act 1995) we issue an Annual Status Report (ASR) in June of each year. This sets out and comments on air quality data from the previous 12 months across the wider area. These can be found at: https://www.bathnes.gov.uk/services/environment/pollution/air-quality/reports

[1] Department of Transport statistics from the Office for National Statistics. Economic activity and social change in the UK, real-time indicators, 2021https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/economicactivityandsocialchangeintheukrealtimeindicators/23september2021

- You can also view an interactive map of historical NO_2 data collected from monitoring locations around the area, here: https://www.bathnes.gov.uk/services/environment/pollution-noise-nuisance/air-quality/air-quality-data-long-term

- We will prepare an additional Clean Air Zone Annual Report that will focus on success with the government's directive and results against a wide range of factors as set out in the Monitoring and Evaluation Plan in the Full Business Case for Bath's Clean Air Zone. Go to: https://beta.bathnes.gov.uk/sites/default/files/2020-10/appendix_r_674726.br_.042.fbc-26_monitoring_and_evaluation_plan.pdf

- At the end of this report is a section called 'Monitoring Explained' which has been included to help you understand some of processes used to gather the data for this report.

Background information

This section provides information on why we need a CAZ in Bath, the type of air pollution that we're trying to tackle, and how we decided on a Class C charging CAZ. Further information can be found in the Full Business Case at: www.bathnes.gov.uk/BathCAZ.

Air pollution

Air pollution is the leading environmental health risk to the UK public, with an estimated 28,000 to 36,000 deaths annually attributed to it in the UK alone[2].

Long-term exposure to air pollution is linked to premature death associated with lung, heart and circulatory conditions, while short-term exposure exacerbates asthma and increases hospital admissions.

There is evidence to suggest that despite strengthening environmental policies, the poorest in our society are being unfairly exposed to worse air pollution without seeing improvements[3]. Clean air is important for everyone and will alleviate stress on our health system, improve people's lives and make our society more equitable.

Types and causes of air pollution

There are different causes and sources of air pollution. Historically, combustion of fossil fuels for energy, such as coal, produced smoke and sulphur dioxide (SO_2).

Now road traffic is chiefly responsible for the poor air quality in the UK contributing to nitrogen dioxide (NO_2) pollution and particulate matter (PM) pollution.

Particulate matter pollution, referred to as PM_{10} or $PM_{2.5}$, is made up of tiny bits of material from all sorts of places including smoke from fires, exhaust fumes, smoking or the dust from brake pads on vehicles. These particles are too small to see, and we can breathe them in without noticing.

Nitrogen dioxide (NO_2) comes from burning fuels or other materials, so levels are especially high around roads. But they are also produced from home gas boilers, bonfires, and other sources as well. You cannot see or smell nitrogen oxides, but they mix with the air we breathe and are absorbed into our bodies. Vehicle exhaust

[2] Public Health England. Review of interventions to improve outdoor air quality and public health, 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938623/Review_of_interventions_to_improve_air_quality_March-2019-2018572.pdf

[3] Air Quality Management Resource Centre, UWE. Emissions vs exposure: Increasing injustice from road traffic-related air pollution in the United Kingdom, 2019 https://www.sciencedirect.com/science/article/pii/S1361920919300392

emissions contribute 35 per cent of all UK nitrogen oxide emissions (NO_x) which is the single greatest source[4].

How does air pollution affect our health?

Air pollution particles and gases enter our bodies and can damage our cells in different ways. They usually get into our lungs first and can then move into our blood to reach organs such as our heart and brain.

Any amount of pollution can be damaging to our health, but the more that you are exposed to, the bigger the risk and the larger the effect on you and your family. Some people are more vulnerable to the impacts of air pollution than others. Those more at risk from air pollution include children, pregnant and older people; and people with lung conditions such as asthma, chronic obstructive pulmonary disease (COPD) and lung cancer, and people with heart conditions such as coronary artery disease, heart failure and high blood pressure.

Air pollution in Bath

In Bath, annual average nitrogen dioxide (NO_2) levels exceed the legal limit of 40 µg/m^3 at several locations within the city, chiefly caused by vehicle emissions.

The problem is exacerbated by Bath's topography. The city sits in the bottom of a valley surrounded by hills, and its central roads are flanked by tall buildings, which means that in certain conditions, vehicle emissions can get trapped in the atmosphere causing high levels of NO_2 in certain locations.

Particulate matter in Bath was not found to exceed legal limits for either PM_{10} (particulate matter less than 10 micrometers in diameter) or $PM_{2.5}$ (particulate matter less than 2.5 micrometers in diameter), except at times when there were meteorological or other events that caused spikes in these pollutants, nationally. There has been a downward trend in levels of PM in Bath since 2017.

Health impacts in Bath of NO_2 pollution

- NO_2 contributes to as many as 36,000 early deaths in the UK each year
- It irritates and inflames the lining of airways – which can worsen asthma and make breathing difficult among those with lung disease (such as bronchitis and emphysema). In Bath, around 12,000 people suffer from asthma
- Research shows that high levels of NO_2 can affect children's lung development and that children who grow up in highly polluted areas are more likely to develop asthma.

[4]DEFRA. Air quality: explaining air pollution – at a glance, 2019. https://www.gov.uk/government/publications/air-quality-explaining-air-pollution/air-quality-explaining-air-pollution-at-a-glance

How we monitor air quality

B&NES has been monitoring air pollution for many years, reviewing the monitoring sites regularly, more recently to ensure coverage of key CAZ locations and potential diversion routes around the zone. Three pollutants are measured around the district: NO_2, PM_{10} and $PM_{2.5}$.

There are currently over 150 locations where NO_2 is measured, including 50 key sites with higher levels of pollution where three diffusion tubes are located at each location to improve data confidence.

To read more about how air quality is measured and analysed in relation to the effectiveness of Bath's CAZ, see the Impacts of the CAZ on Air Quality section.

To find out more information about air quality across B&NES go to:
https://www.bathnes.gov.uk/services/environment/pollution/air-quality

Why we need a charging CAZ

In 2017, following a successful ruling the Supreme Court in a case brought against the government by Client Earth, the government directed Bath and North East Somerset (B&NES) Council to reduce the annual average NO_2 levels in Bath to within legal limits in 'the shortest possible time' and 'by the end of 2021 at the latest'.

Since 2017, we have done significant technical work to understand what's required to comply with air quality limits, establishing that a charging clean air zone would be the only measure capable of delivering the necessary air quality improvements by the end of 2021. A CAZ works by deterring higher emission vehicles from driving in the most polluted areas of the city by levying a charge, encouraging a more rapid replacement of polluting vehicles for cleaner, compliant ones than would otherwise naturally occur. Other cities, including Birmingham (also live), Portsmouth (launching on 29 November 2021), Bradford, Bristol, Manchester, Liverpool, Sheffield and Rotherham, and Newcastle and Gateshead are also introducing clean air zones.

Other than meeting these objectives, the CAZ is seen is part of the wider obligations towards improving our health and the natural environment. In March 2019 the Council declared a Climate Emergency, resolving to provide the leadership in making the Council area carbon neutral by 2030[5]. And in July 2020, the Council declared an Ecological Emergency, resolving to work with local and national partners to resist the destruction of natural habitats through planning policy and development management.

[5] Bath and North East Somerset Council. Climate Emergency, 2021 https://www.bathnes.gov.uk/climate-emergency

The government has provided all the funds required for us to prepare and implement the CAZ, work is overseen by the government's Joint Air Quality Unit (JAQU) and subject matter experts are also independently verifying the work being done.

How we decided on a class C charging CAZ

The options for Bath to achieve success were a Class D charging clean air zone, charging all higher emission vehicles including cars and motorbikes or a Class C charging clean air zone, charging all higher emission vehicles except private cars and motorbikes but including some additional traffic management.

We engaged extensively with the public throughout 2018/19 before reaching a decision on a Class C charging clean air zone. The overwhelming opinion was that while we needed to tackle pollution, a class C charging CAZ would strike a better balance between tackling pollution and protecting central businesses and vulnerable residents that might be disproportionally affected by charging higher emission cars.

Technical modelling suggested that we could achieve success with a Class C CAZ provided we also introduced additional traffic measures at Queen Square to address a particular NO_2 hotspot on Gay Street.

In addition, it was agreed that significant financial support would be given to local individuals and businesses to help them replace polluting vehicles regularly entering the zone with cleaner, compliant ones. This mitigation would reduce the impact of charges on affected businesses, while also further reducing emissions to support better air quality.

The full business case for the CAZ was approved by central government in January 2020 and can be read here: https://beta.bathnes.gov.uk/policy-and-documents-library/baths-clean-air-zone

How Bath's CAZ works

Bath CAZ is a Class C charging clean air zone, which means that daily charges apply to the following higher emission vehicles driving in the zone that do not comply with Euro 6/VI (diesel), or Euro 4/IV (petrol) emissions standards:

- Taxis, private hire vehicles (PHVs), vans (including pick-ups and N1 campervans), minibuses, and light goods vehicles (LGVs) - £9 per day
- Buses, coaches and heavy goods vehicles (HGVs) - £100 per day
- A discounted charge of £9 per day is also available for private (PHGVs), such as larger motorhomes and horse transporters, once registered with the Council.

Cars and motorbikes (except for taxis and PHVs) are not charged in a Class C CAZ, regardless of their emissions standard. This includes campervans classed as M1 on their V5C.

Importantly, the Council is not keen to penalise or make money from the zone. Its priority is to inform people about the charge, deter polluting vehicles from entering the zone, and encourage those with chargeable, non-compliant vehicles regularly entering the zone to upgrade their vehicles, with the help of the Council's financial support scheme if needed.

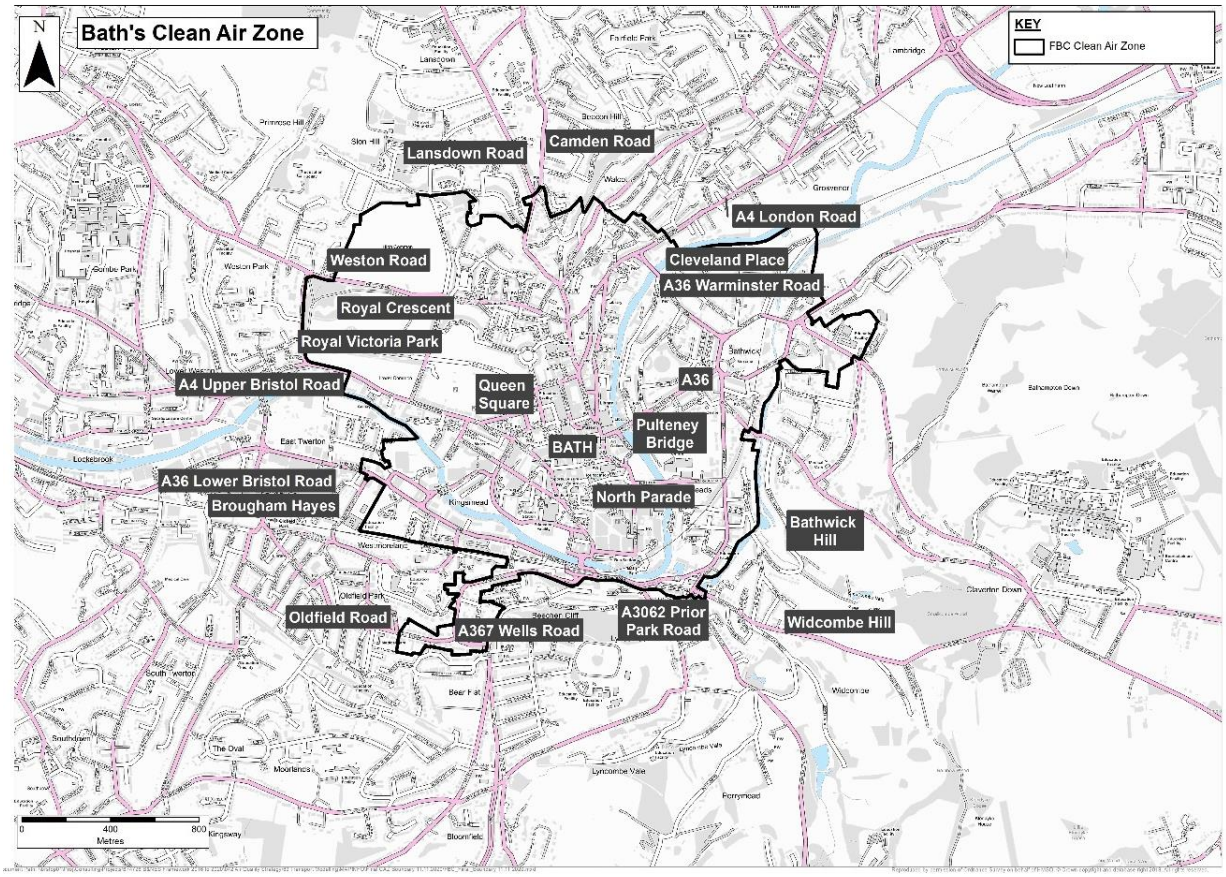
Revenue from charges and fines is used to pay for the running of the scheme. Any money made over and above this must be reinvested in sustainable transport projects.

Zone boundary

The zone covers the very centre of the city (see Figure 1), but its boundary is designed to ensure that annual average levels of NO_2 both inside and outside the zone are within acceptable legal limits by the end of 2021, as per the government's directive.

The Clean Air Zone is as small as possible in order to minimise the social, economic and distributional impact of the scheme, whilst at the same time capturing as many non-compliant vehicle movements as possible in and around the city, with a view to ensuring that air quality limit values are met in the shortest possible time. See the 'Impact of the CAZ on Air Quality' section for a map showing where NO_2 monitoring sites are currently located across the city.

Figure 1- A map of the CAZ boundary.



Exemptions

National exemptions apply permanently for ultra-low emission vehicles, hybrid and alternatively fuelled vehicles, disabled passenger tax class vehicles, disabled tax class vehicles, military vehicles, historic vehicles, and vehicles with retrofit technology accredited by the Clean Vehicle Retrofit Accreditation Scheme (CVRAS).

Local exemptions apply temporarily for two or four years (and for shorter periods) for certain vulnerable groups, hard-to-replace vehicles, and to encourage applications to the financial assistance scheme to upgrade or replace non-compliant vehicles. The range was developed in response to feedback from our public consultations and to mitigate the impact of charges on certain groups. For more information on local exemptions see www.bathnes.gov.uk/CAZexemptions

Schemes to support and encourage vehicle compliance

Alongside zone charges that deter the use of non-compliant vehicles in the zone and encourage owners to upgrade, the Council introduced two government-funded schemes that help to mitigate the impact of charges on businesses/individuals regularly travelling in the zone, and further improve air quality:

- A financial assistance scheme for businesses and individuals regularly travelling in the zone to help replace or retrofit up to 1,500 polluting, chargeable vehicles with cleaner, compliant ones (via grants and or interest-free finance worth £9.4 million)
- A bus retrofit scheme to financially support local bus operators to retrofit the engines of all remaining non-compliant buses on scheduled routes in the city so that they meet the new emission standards i.e. are compliant with Euro 6 diesel standards (worth £1.7 million)

The financial assistance scheme is now closed to new applicants with all available funds allocated. The Bus retrofit scheme is largely complete, with three outstanding retrofits delayed due to the need to develop a specific retrofit solution for the vehicles.

Assessing the impacts of Bath's CAZ

The purpose of the CAZ is to reduce nitrogen dioxide (NO_2) pollution in Bath to within the annual average limit of 40 micrograms per cubic metre ($\mu g/m^3$) in the shortest possible time, and by the end of 2021 at the latest.

To show that we've met this requirement, we will need to evidence that the annual average levels of NO_2 recorded at every monitoring site in Bath (both inside and outside of the zone) do not exceed 40 $\mu g/m^3$. This will require a full 12 months of data from each individual site and the results will be published in the annual Clean Air Zone Report, to be published as soon as possible in 2022.

However, in addition to air quality, the zone's introduction also impacts on traffic flow, vehicle compliance, business and personal travel behaviour, and the local economy.

Data is therefore being continually collected on a range of measures so that we can assess the impact of the zone and identify any emerging trends in air quality and other items that may need corrective action.

The Council is committed to monitoring and reporting on these measures at various intervals and the full list, including a reporting timeline is included in Appendix 1.

We have already introduced additional traffic and air quality monitoring in areas where the public has expressed concern about displacement effects. For more information see Appendix 2.

The purpose of our quarterly reports is to provide an indicative view of the zone's performance across its first year of operation, looking at three key measures outlined in Table 1: air quality data, traffic flow data and vehicle compliance data. This report also includes data on the financial assistance and bus retrofit schemes because of their influence on fleet compliance.

We will report on further, secondary measures later in the annual CAZ report, to be released in 2022 and based on the timeline published Appendix 1.

However, this may be subject to review by the government's Joint Air Quality Unit (JAQU) in view of Covid-19 pandemic conditions which continue to effect traffic flows and travel behaviours. It will also be reviewed in the context of the emerging roadmap on 'achieving success' which is the process being introduced by JAQU in which the Council will need to initially demonstrate success at all monitoring sites, before maintaining this success 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.

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.

Table 1- Data collection and collation for Bath CAZ quarterly reporting.

Measure	Data to be Used	Rationale for Inclusion	Data Collection Methods	Frequency of Data Collection
M1: Air quality data	NO_2 concentrations data collected at existing monitoring locations in Bath and wider B&NES	To understand changes in air quality data, particularly NO_2 concentrations.	Diffusion tubes and real time monitoring	Baseline (pre-scheme) then continuous monitoring (reported quarterly).
M2: Traffic Flows	Traffic Flows in and around the CAZ areas will be collected to understand the changes in traffic flows as a result of the scheme.	To understand changes in traffic flows along key corridors and links on the highway network. This will include possible 'rat-run' routes which may have been created by the CAZ, so responding to consultation concerns by residents in specific areas.	Automatic Number Plate Recognition (ANPR) camera cordon and ancillary Manual Classified Counts (MTC) or Automated Traffic Counts (ATC) on key roads or perceived 'rat-runs'	Baseline (pre-scheme) then continuous monitoring (reported quarterly).
M3: Vehicular fleet information	Number of compliant/non-compliant vehicles travelling within Bath	To understand changes in the type of vehicles travelling in Bath.	ANPR cordon, cross-referencing with DVLA vehicle database	Baseline (pre-scheme) then continuous monitoring (reported quarterly).

Impacts of the CAZ on air quality

The purpose of the CAZ is to reduce nitrogen dioxide (NO_2) pollution in Bath to within the annual average limit of 40 micrograms per cubic metre ($\mu g/m^3$) in the shortest possible time, and by the end of 2021 at the latest. 40 $\mu g/m^3$ is the legal limit set for NO_2 in the Environment Act 1995 Bath and North East Somerset Council Air Quality Direction 2019[6].

To show that we've met this requirement, we will need to evidence that the annual average levels of NO_2 recorded at every monitoring site in Bath (both inside and outside of the zone) does not exceed 40 $\mu g/m^3$. This will require a full 12 months of data from each individual site and the results will be published in the annual report, to be published as soon as possible in 2022.

We cannot yet determine whether we have achieved success with the government's directive, but in the meantime the data presented here gives an indication of the impact of the zone on air quality since launch on 15 March 2021.

This section is split into two main sections:
1. How we collect and measure air quality data
2. Provisional air quality data, July to September 2021

How we collect and measure air quality data

We have measured air quality in Bath and North East Somerset since the mid-1990s. Currently we measure nitrogen dioxide (NO_2) and Particulate Matter ($PM_{2.5}$ and PM_{10}) concentrations in two ways: automatic analysers and diffusion tubes.

Automatic analysers measure NO_2 and PM in four permanent roadside locations in Bath. They take hourly readings of air pollution concentrations and provide more accurate readings than diffusion tubes. One of these monitoring stations is linked to the UK Automatic Urban and Rural Network (AURN) which provides national coverage of a range of pollutants.

Diffusion tubes are light, mobile and can be placed in many locations around the area, usually 1 to 15 metres from the road or at the kerbside (less than 1 metre from the road) and around 2-3 metres above ground level. The ambient air reacts with a chemical reagent in the tube so that NO_2 concentrations can be measured. The tubes are exposed to the air for one month before they are collected and sent to a

[6] Environment Act 1995 Bath and North East Somerset Council Air Quality Direction, 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800802/air-quality-direction-bath-2019.pdf

laboratory for analysis. There are currently over 150 diffusion tube locations across Bath & North East Somerset.

In recent years, average annual levels of particulate matter pollution in Bath have not exceeded the legal limit which is 40 µg/m^3 for PM_{10} and 25 µg/m^3 for $PM_{2.5}$, except at times when there were meteorological or other events that caused spikes in these pollutants, nationally. Whilst we continue to measure it, PM data will not form part of these quarterly or annual reports.

Comparing air quality data inside and outside of the zone

The Council has committed to assessing whether the introduction of the CAZ would lead to displacement impacts in areas outside of the zone's boundary.

To establish the impact of the zone on air quality in surrounding areas, and trends inside and outside of the zone, we present air quality data for the following areas:

- The clean air zone (sites within the CAZ boundary which we call 'CAZ_Only')
- The boundary area (sites outside the CAZ boundary but within the urban area of Bath including Batheaston and Bathampton, which we call 'CAZ_Boundary')
- The wider area (sites outside of the Bath, Batheaston and Bathampton urban areas, but within the rural areas and district-wide urban areas in Bath & North East Somerset, which we call 'Wider_B&NES')

Air quality monitoring locations

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 (see Figure 2) and 57 are in the city's urban area outside of the zone's boundary (see Figure 3).

Figure 2- A map showing the Clean Air Zone and the automatic analyser (squares) and diffusion tube (triangles) locations in Bath © Crown Copyright 2021. License number 100023334.

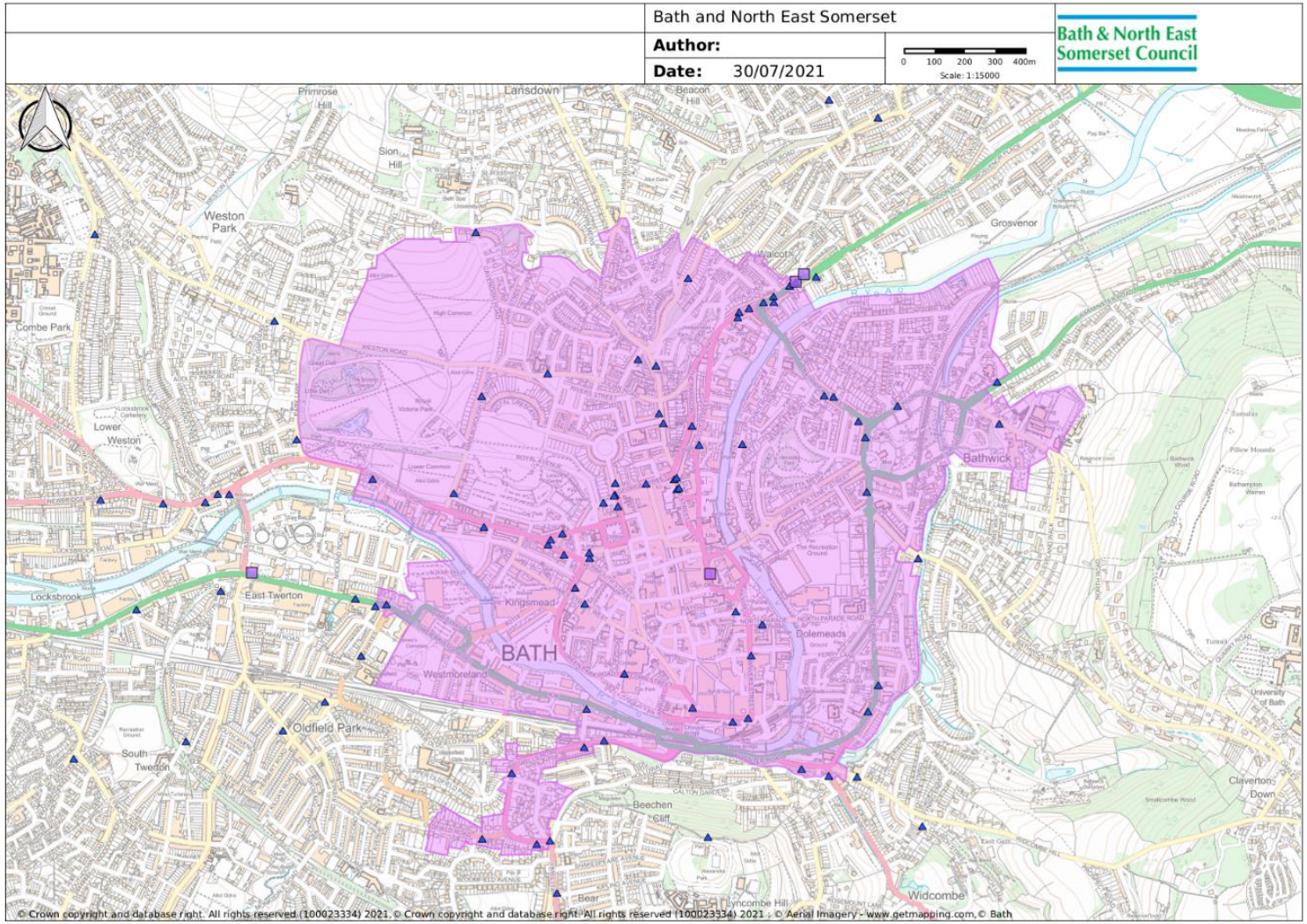
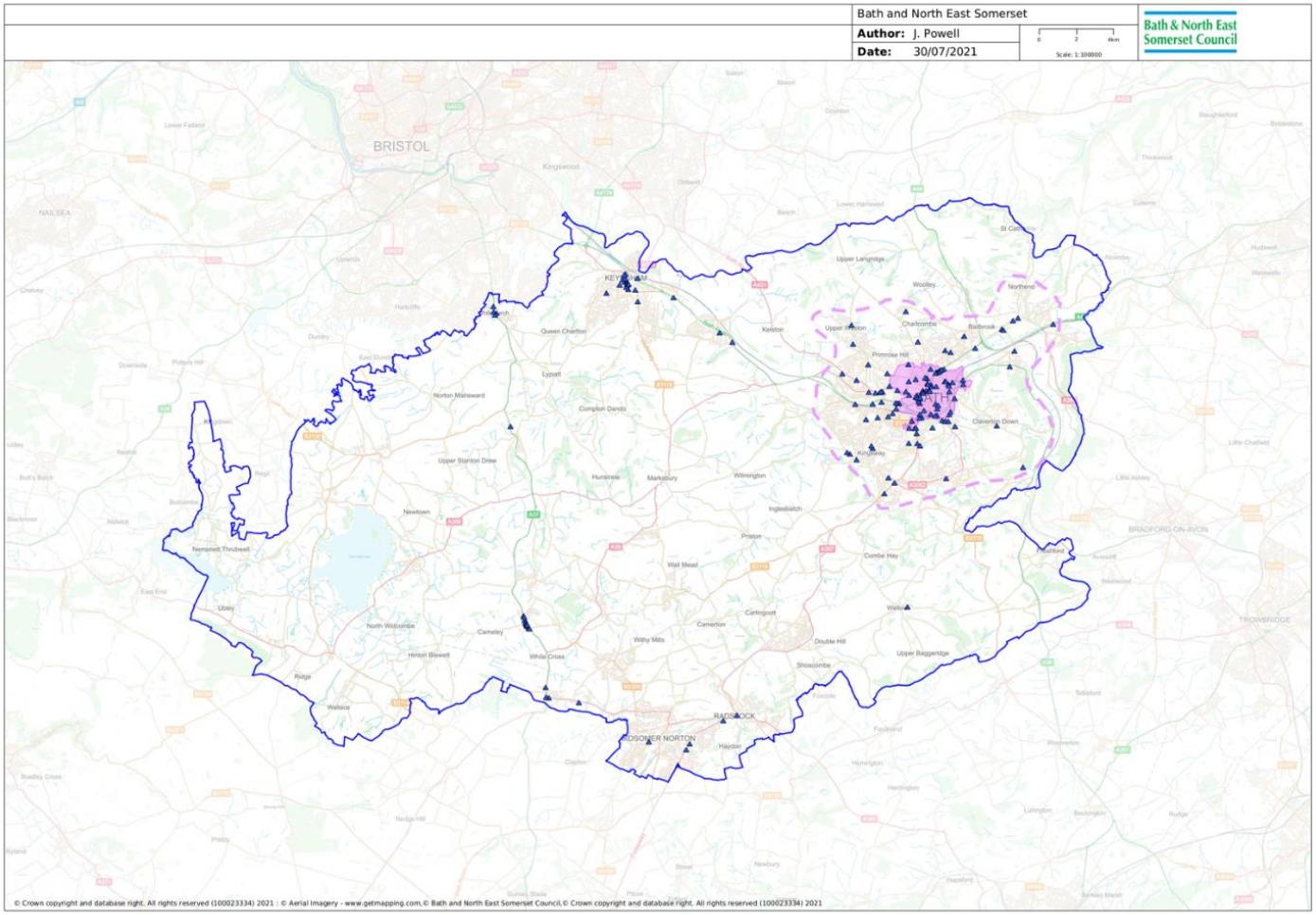


Figure 3 - A map showing diffusion tube locations in three site groupings: The wider area of Bath and North East Somerset (the blue line), the urban area outside of the CAZ (the dotted pink line) and in the CAZ (the pink area). Diffusion tubes in the wider area are not distributed evenly. The majority are located within Farrington Gurney, Keynsham, Midsomer Norton and Radstock area and Temple Cloud. © Crown Copyright 2021. License number 100023334.



Numbers of diffusion tube sites in each location

Table 2 shows the growing number of diffusion tube air quality monitoring sites across the area. Additional sites were chosen based on the air pollution dispersion model developed for the CAZ Full Business Case, enabling us to check the impact of the clean air zone against what was modelled.

Triplicate sites are where three diffusion tubes are co-located at one monitoring site to improve accuracy. These are located where annual NO_2 concentrations are predicted to be greater than 34 µg/m^3. The NO_2 concentration from each triplicate diffusion tube is averaged to produce one result for the site, so triplicate measurements are only counted once for analysis.

Table 2- Number of diffusion tube sites which were active during each quarter (triplicate sites are averaged so only considered one location) from 2019 Q3 to 2021 Q3 in the three site groupings. This is the total number of sites and will not reflect the number of sites reporting full quarterly data. Data may be missing for multiple reasons including damaged diffusion tubes or those recording invalid results.

Period	CAZ_Only	CAZ_Boundary	Wider_B&NES
2019 Q3	65	55	29
2019 Q4	65	56	29
2020 Q1	65	56	33
2020 Q2	65	56	34
2020 Q3	65	56	34
2020 Q4	65	56	34
2021 Q1	65	56	36
2021 Q2	65	56	40
2021 Q3	65	57	40

Unless otherwise stated, air quality data shown in this report comes from averaging monthly diffusion tube results.

Measuring air quality to take account of seasonal effects

Annual average concentrations are useful because they account for varying seasonal cycles of pollutants such as:

- Meteorological conditions, for example wind, precipitation, and temperature; and
- And to a lesser degree, human sources of air pollution, for example increased energy generation for heating in winter or increased agricultural activities in spring.

This is also why we compare air quality data against similar time periods, for example comparing data for the third quarter (July to September) of 2021 with the third quarter (July to September) of 2019. Further information on air quality monitoring can be found in the 'Monitoring Explained' section at the end of this report.

Air quality data results

To identify emerging trends, we present provisional NO_2 data for the three months of July to September 2021, or 2021 Quarter 3. We compare it with baseline data from the third quarter of 2019 and to previous years' data to account for seasonal differences and to show the impact of the zone's launch on air quality so far. 2020 data has been discounted as a baseline because of Covid-19's unprecedented effect on traffic and travel behaviour.

Table and figures included in this section:

- Tables 3 to 5: Sites within the CAZ (CAZ_Only) and Bath's wider urban area (CAZ_Boundary) that provisionally recorded greater than 40 µg/m^3, 36 µg/m^3 or recorded an increase in NO_2 concentration when compared to 2019 Q3.
- Table 6: The number of sites, that when averaged during the quarter, provisionally recorded NO_2 concentrations greater than 40 µg/m^3 and 36 µg/m^3.
- Figure 4: Trends in monthly average NO_2 concentrations in B&NES since 2017.
- Table 7: Provisional quarterly average NO_2 concentration in 2019 Q3 and 2021 Q3 grouped by locations inside and outside the zone.
- Figure 5: Provisional quarterly change in average NO_2 concentrations compared with 2019 Q3.
- Figure 6: Trends in NO_2 roadside increment (Rinc) in B&NES since 2017.
- Table 8: Updated provisional quarterly average NO_2 concentration in 2019 Q3 and 2021 Q3 grouped by locations inside and outside the zone.

Tables 3 to 6 below focus on locations in the city (inside and outside the zone) with provisional NO_2 levels above 40 µg/m^3 , 36 µg/m^3, or where NO_2 pollution has increased compared to levels recorded in our baseline year, 2019.

All other areas across the city have quarterly average levels of below 36 µg/m^3 or have falling levels of NO_2 and are therefore excluded from the tables.

Table 3- NO_2 concentrations at locations where the quarterly average exceeded 40 µg/m^3 in 2021 Q3, within the CAZ_Only and CAZ_Boundary site groupings. TA= triplicate average site. Quarters with at least one month of data missing are highlighted orange. Data may be missing for multiple reasons including damaged diffusion tubes or those recording invalid results.

Site ID	Site	Site Grouping	2019 Q3 NO_2 concentration (µg/m^3)	2021 Q3 NO_2 concentration (µg/m^3)	Change (µg/m^3)	Missing data?	Reason missing
DT020 (TA)	Wells Road	CAZ_Only	46.9	48.2	1.3		
DT042	Dorchester Street	CAZ_Only	47.0	47.0	0.0		
DT060	Victoria Buildings	CAZ_Only	41.0	44.2	3.2	2 months in 2021 Q3	Invalid result
DT182 (TA)	Gay Street Lower	CAZ_Only	43.2	41.6	-1.6		
DT224 (TA)	Walcot Parade 2	CAZ_Only	55.9	45.5	-10.4	1 month in 2019 Q3	Site new in Aug 2019
DT234 (TA)	Gay Street 2	CAZ_Only	43.4	42.7	-0.7	1 month in 2019 Q3	Site new in Aug 2019
DT239 (TA)	Broad Street 4	CAZ_Only	36.2	43.1	6.9	1 month in 2019 Q3	Site new in Aug 2019
DT248 (TA)	Chapel Row 2	CAZ_Only	39.9	48.9	9.0	1 month in 2019 Q3	Site new in Aug 2019
DT230 (TA)	Upper Bristol Road 4	CAZ_Boundary	42.7	41.2	-1.5	1 month in 2019 Q3	Site new in Aug 2019

Table 4- NO_2 concentrations at locations where the quarterly average exceeded 36 µg/m^3 but remained less than 40 µg/m^3, within the CAZ_Only and CAZ_Boundary site groupings. TA= triplicate average site. Quarters with at least one month of data missing are highlighted orange. Data may be missing for multiple reasons including diffusion tubes going missing or invalid results.

Site ID	Site	Site Grouping	2019 Q3 NO_2 concentration (µg/m^3)	2021 Q3 NO_2 concentration (µg/m^3)	Change (µg/m^3)	Missing data?	Reason missing
DT043	St. James Parade	CAZ_Only	39.9	39.1	-0.8	1 month in 2019 Q3	Invalid result
DT227 (TA)	Wells Road 3	CAZ_Only	40.8	36.7	-4.1	1 month in 2019 Q3	Site new in Aug 2019
DT235 (TA)	Wells Road 4	CAZ_Only	39.6	36.3	-3.3	1 month in 2019 Q3	Site new in Aug 2019
DT237	Broad Street 2	CAZ_Only	32.6	39.9	7.3	1 month in 2019 Q3	Site new in Aug 2019
DT062	Argyle Terrace	CAZ_Boundary	34.7	37.1	2.4		

Table 5- NO_2 concentrations at locations where the quarterly average increased in 2021 Q3 when compared to 2019 Q3, within the CAZ_Only and CAZ_Boundary site groupings. TA= triplicate average site. Quarters with at least one month of data missing are highlighted orange. Data may be missing for multiple reasons including diffusion tubes going missing or invalid results.

Site ID	Site	Site Grouping	2019 Q3 NO_2 concentration (µg/m^3)	2021 Q3 NO_2 concentration (µg/m^3)	Change (µg/m^3)	Missing data?	Reason missing
DT003	Broad Street	CAZ_Only	34.2	35.1	0.9		
DT004	George Street	CAZ_Only	26.1	28.9	2.8	1 month in 2019 Q3 and 2021 Q3	Invalid results
DT005	Gay Street Top	CAZ_Only	24.6	25.2	0.6		

DT009	Upper Bristol Road	CAZ_Only	24.3	25.8	1.5		
DT020 (TA)	Wells Road	CAZ_Only	46.9	48.2	1.3		
DT060	Victoria Buildings	CAZ_Only	41.0	44.2	3.2	2 months in 2021 Q3	Invalid results
DT157	Charles Street	CAZ_Only	23.4	27.7	4.3	1 month in 2021 Q3	Invalid result
DT158	Paragon 2	CAZ_Only	25.5	28.2	2.7	1 month in 2019 Q3 and 2021 Q3	Invalid results
DT183	Chapel Row	CAZ_Only	26.7	32.0	5.3		
DT213 (TA)	Marlborough Lane	CAZ_Only	19.0	21.3	2.3		
DT215 (TA)	Queen Parade Place	CAZ_Only	15.3	15.5	0.2		
DT216 (TA)	Monmouth Place	CAZ_Only	24.4	24.9	0.5		
DT219	Morford Street	CAZ_Only	17.9	18.2	0.3		
DT237	Broad Street 2	CAZ_Only	32.6	39.9	7.3	1 month in 2019 Q3	Site new in Aug 2019
DT238 (TA)	Broad Street 3	CAZ_Only	35.2	35.8	0.6	1 month in 2019 Q3	Site new in Aug 2019
DT239 (TA)	Broad Street 4	CAZ_Only	36.2	43.1	6.9	1 month in 2019 Q3	Site new in Aug 2019
DT248 (TA)	Chapel Row 2	CAZ_Only	39.9	48.9	9.0	1 month in 2019 Q3	Site new in Aug 2019
DT026	Upper Wellsway	CAZ_Boundary	24.7	25.1	0.4		
DT062	Argyle Terrace	CAZ_Boundary	34.7	37.1	2.4	2 months in 2021 Q3	Invalid results
DT094	London Road West B, Batheaston	CAZ_Boundary	24.2	24.8	0.6		

DT143	Rackfield Place	CAZ_Boundary	22.0	23.1	1.1		
DT154	Bradford Road	CAZ_Boundary	21.1	23.4	2.3		
DT167	Weston High Street	CAZ_Boundary	17.6	19.2	1.6		
DT171	Frome Road/ Upper Bloomfield	CAZ_Boundary	23.8	26.5	2.7		
DT179 (TA)	Upper Bristol Road 3	CAZ_Boundary	31.3	31.7	0.4		
DT189	Old Newbridge Hill	CAZ_Boundary	26.5	29.8	3.3		
DT195	Lansdown Lane	CAZ_Boundary	16.9	19.6	2.7		
DT201	The Hollow	CAZ_Boundary	19.4	20.9	1.5		
DT244	Whiteway	CAZ_Boundary	16.5	18.8	2.3	1 month in 2019 Q3 and 2021 Q3	Site new in Aug 2019 and invalid result

Table 6- The total number of sites at locations in the clean air zone and outside the boundary but within urban areas of Bath, which recorded greater than 40 µg/m^3 and 36 µg/m^3 NO_2 concentrations during 2019 Q3 and 2021 Q3. The total number of sites reporting during each period is shown along with the proportion of sites recording greater than 40 µg/m^3 and 36 µg/m^3 because the total number of sites is variable. Note that sites which recorded above 40 µg/m^3 will also have recorded above 36 µg/m^3. Some sites reported here do not have full quarterly data available and are missing one- or two-month's data.

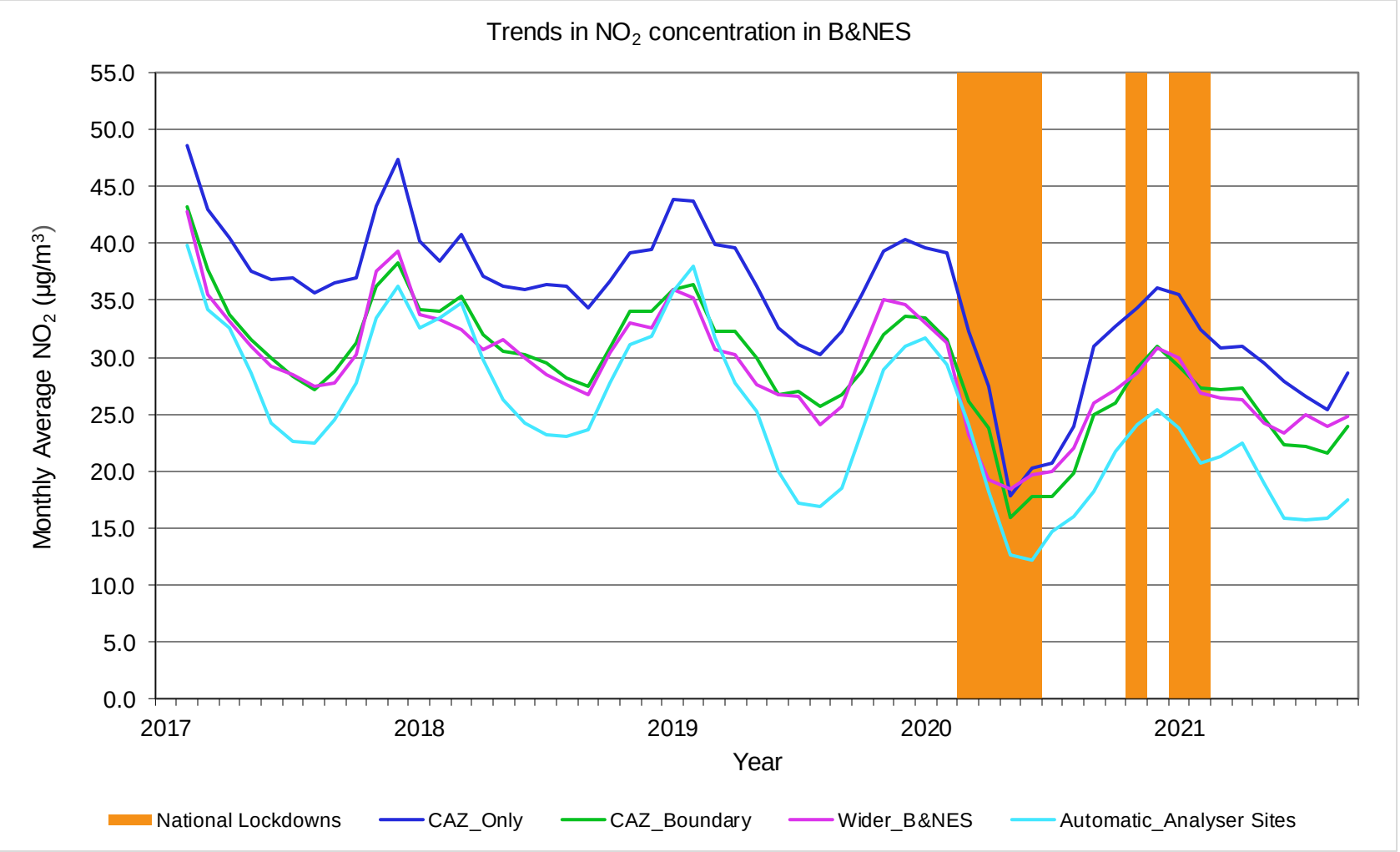
CAZ_Only and CAZ_Boundary	Total no. sites reporting	No. sites >40 µg/m^3 average	Proportion sites >40 µg/m^3 (%)	No. sites >36 µg/m^3	Proportion sites >36 µg/m^3 (%)
2019 Q3	120	15	13	26	22
2021 Q3	122	9	7	14	11
Change	2	-6	-5	-12	-10

N.B. It should be noted that new sites were added for a variety of reasons including in response to requests and to verify model predictions.

Comments and key findings:

- This data for each quarter has been averaged across every site reporting for that quarter, in the location group. Some of the results include quarters that did not record full data, as one or more months may be missing.
- Missing or invalid data can lead to misleading results by, for example, skewing an average. We have omitted results from our analysis if there is missing data because losing one- or two-month's information from a three-month quarter means at least 33.3% or 66.6% of the data is missing.
- Multiple monitoring locations have been added since 2019 Q3 across B&NES. See Table 2 for details. Sites were added for a range of reasons including in response to public requests as well as verifying model predictions.
- Four sites which recorded a quarterly average greater than 40 µg/m^3 also had an increased NO_2 concentration when compared to the same quarter in 2019. These areas are being closely monitored.
- We are undertaking traffic flow monitoring alongside air quality monitoring to determine the effect of traffic. The temporary changes in traffic patterns due to the closure of Cleveland Bridge has impacted these results.
- While nine sites recorded results greater than 40 µg/m^3 in the third quarter of the year, it is anticipated that continued improvements in vehicle compliance rates will bring about the required reductions by the end of the year.
- However, compared with the same quarter in 2019 overall, six fewer sites in Bath recorded quarterly annual average levels of NO_2 concentrations over 40 µg/m^3 and twelve fewer sites over 36 µg/m^3.

Figure 4- Monthly average NO_2 concentrations in B&NES from 2017 to 2021 separated into the three site groupings, as well as the average of three automatic analyser sites in Bath (Chelsea House, Guildhall, Windsor Bridge). A fourth automatic analyser site at the A4 roadside has limited NO_2 data so was omitted from the analysis.



Comments and key findings:

- Please note this is not an indication of the CAZ success as the lines represent average levels across multiple sites and some sites remain above 40 µg/m^3
- Monthly average readings were taken from 54 long-term monitoring diffusion tube sites (18 within the CAZ_Only, 12 in the CAZ_Boundary outside of the CAZ but within the Bath urban area, and 24 in the Wider_B&NES grouping) and three automatic analysers at Chelsea House, the Guildhall and Windsor Bridge in Bath.
- For comparison purposes, we have only included and compared sites that have been in place since 2017 (dozens of additional monitoring sites have been added across B&NES since 2017 which are not included).
- There is a general downward trend with average monthly NO_2 concentrations falling since 2017. This is likely due to the natural replacement of older, more polluting vehicles with cleaner, compliant ones.
- Clean Air Zones seek to accelerate natural replacement rates to rapidly improve fleet compliance. Due to Covid-19, the natural replacement rate has stalled as new vehicle registrations declined during the pandemic, so the effect of the CAZ has been to maintain some of this replacement rate, rather than increase it.[7]
- There is a clear seasonal trend in the data, with increased NO_2 concentrations in the winter. This is part of the reason why there is an upturn in the trend at the end of 2021, despite improvements, as well as traffic returning to pre-pandemic levels.
- Increased winter NO_2 concentrations are primarily due to:
    - Lower vehicle catalyst temperatures meaning exhaust emissions abatement technology is less effective.
    - Increased emissions from domestic sources, such as gas flues.
    - The fact that NO_2 is retained in colder air for longer than warmer air.
- A marked decrease in mid-2020 is due to significantly less traffic on the roads because of Covid-19 restrictions.

[7] Department for Transport, 2021 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021032/vehicle-licensing-statistics-april-to-june-2021.pdf

2021 Q3 quarterly trend analysis

For our Q3 report, we have updated the way we analyse quarterly data.

Firstly, it is important to point out that we include the full quarterly diffusion tube data (regardless of if there are any month's missing data for whatever reason), for all site groupings in both 2019 Q3 and 2021 Q3, in an appendix to this report.

For *analysing* quarterly data, the new approach is to discount any sites where one or more months' data is missing from the quarter, from the analysis. Since a quarter comprises three months, and NO_2 concentrations vary seasonally, including a quarterly average concentration for analysis with one or more months missing, would skew the results. Therefore, when analysing data, we only consider quarters with three full months data.

For our quarterly analysis we also *only* compare sites that have *full quarterly data* from both the baseline, 2019 Q3, and this year, 2021 Q3. This means that the data we are considering is like-for-like, comparable and robust. We have therefore also provided fresh analysis for Q2 data, originally published in September of this year, in the next section of this report.

Triplicate sites (where three diffusion tubes are co-located) are used to increase the accuracy of the data. Where these sites exist, the average from all three diffusion tubes is taken monthly and reported as one result. This practice remains unchanged.

Table 7- Quarterly average NO_2 concentrations in 2019 Q3 and 2021 Q3 in the three site groupings. The results only consider like-for-like data, meaning only diffusion tube sites which recorded full (all three months) quarterly data in both 2019 Q3 and 2021 Q3 are included.

Period	**CAZ_Only NO_2 ($\mu g/m^3$)**	**CAZ_Boundary NO_2 ($\mu g/m^3$)**	**Wider_B&NES NO_2 ($\mu g/m^3$)**
2019 Q3	29.3	22.2	30.0
2021 Q3	25.1	20.2	29.2
Change 2019 Q3 – 2021 Q3 ($\mu g/m^3$)	-4.1	-1.9	-0.7
Change 2019 Q3 – 2021 Q3 (per cent)	-14.1%	-8.8%	-2.5%
Number of sites reporting full results during both quarters	35	41	21

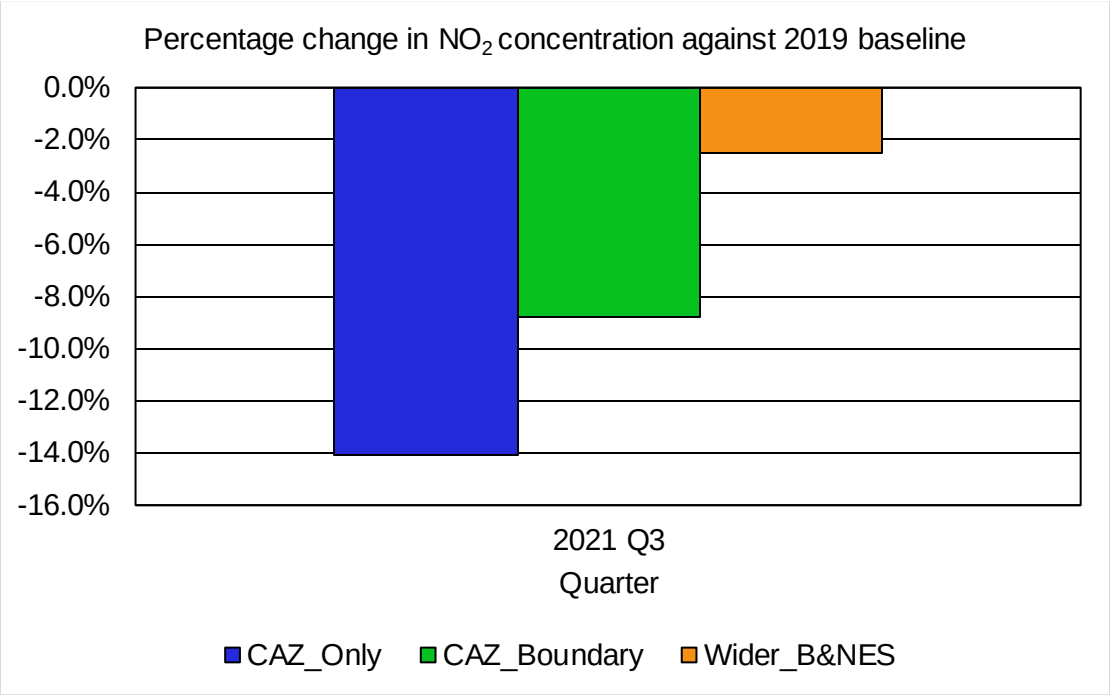
Comments and key findings:

- For analysing quarterly data, we have discounted any sites where one or more months' data is missing from the quarter, from the analysis.
- For our quarterly analysis we also only compare sites that have full quarterly data from both the baseline, 2019 Q3, and this year, 2021 Q3. This means that the data we are considering is like-for-like, comparable and robust. Some sites are discounted due to not having full baseline (2019 Q3) or current (2021 Q3) data.
- Triplicate sites (where three diffusion tubes are co-located) are used to increase the accuracy of the data. Where these sites exist, the average from all three diffusion tubes is taken monthly and reported as one result.
- Average nitrogen dioxide (NO_2) concentrations within the CAZ are 14.1 per cent lower than the same period in 2019 (Q3), representing an average **reduction** of 4.1 µg/m^3. 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).
- There was also an NO_2 reduction found in the Bath urban areas outside the zone's boundary, including Batheaston and Bathampton, averaging an 8.8 per cent **reduction**, or 1.9 µg/m^3 on average, from a total of 41 CAZ_Boundary monitoring sites that recorded full quarterly data from July to September in both 2019 and 2021.
- There was also an NO_2 reduction found in the Wider_B&NES site grouping, averaging a 2.5 per cent **reduction**, or 0.7 µg/m^3 on average, from a total of 21 Wider_B&NES monitoring sites that recorded full quarterly data from July to September in both 2019 and 2021.
- Given that traffic levels have largely returned to those seen pre-pandemic and above, this reduction of NO_2 concentration in the Bath urban area is likely due to the natural replacement of older, more polluting vehicles with cleaner, compliant ones, boosted by the Council's financial assistance to local drivers to replace hundreds of non-compliant vehicles.
- Clean Air Zones seek to speed up the replacement of non-compliant vehicles so it is anticipated that we will see further air quality improvements once the effects of the pandemic on the demand and supply of compliant vehicles have diminished.
- Significant reductions in NO_2 seen in 2020 are likely because of Covid-19 restrictions reducing traffic flows.
- Due to the unprecedented nature of the pandemic, reduced traffic flows and improved air quality, we may expect to see NO_2 concentrations in the coming year, exceed those of 2020 and perhaps 2021, as traffic flows have returned to those seen pre-pandemic, and above.

Figure 5, below, shows the quarterly average change in NO_2 concentration between the baseline, 2019 Q3, and current reporting quarter, 2021 Q3, in each site grouping.

Figure 5- Quarterly change in average NO_2 concentrations compared with 2019 Q3.



Comments and key findings:

- Sites within the CAZ (CAZ_Only sites) show a 14.1% **reduction** in average quarterly NO_2 concentrations, compared with the same period (Q3) in our baseline year, 2019.
- Sites outside of the CAZ but within the urban area of Bath (CAZ_Boundary sites) show an 8.8% **reduction** in average quarterly NO_2 concentrations, compared with the same period (Q3) in our baseline year, 2019.
- It appears that levels of NO_2 outside of the CAZ boundary are decreasing as well as within the CAZ. It illustrates that air quality is not worsening in areas surrounding the CAZ because of the zone and any non-compliant vehicles choosing to divert around it.
- Furthermore, sites in the CAZ_Boundary site grouping record a lower average NO_2 concentration as seen in Figure 4 and Table 7 and less sites recorded greater than 36 µg/m^3 or 40 µg/m^3 as seen in Tables 3 and 4.
- Despite covering a small central area, the CAZ was designed to improve air quality across the whole of Bath and the data demonstrates that this is working.
- Sites outside of the CAZ and Bath urban area (Wider_B&NES sites) show a 2.5% **reduction** in average quarterly NO_2 concentrations, compared with the same period (Q3) in our baseline year, 2019.
- There are Air Quality Management Areas in Keynsham, Saltford, Temple Cloud and Farrington Gurney where some monitoring sites continue to record quarterly averages greater than 40 µg/m^3. These areas are outside the scope of this

report. Find out more at: www.bathnes.gov.uk/services/environment/pollution/air-quality.

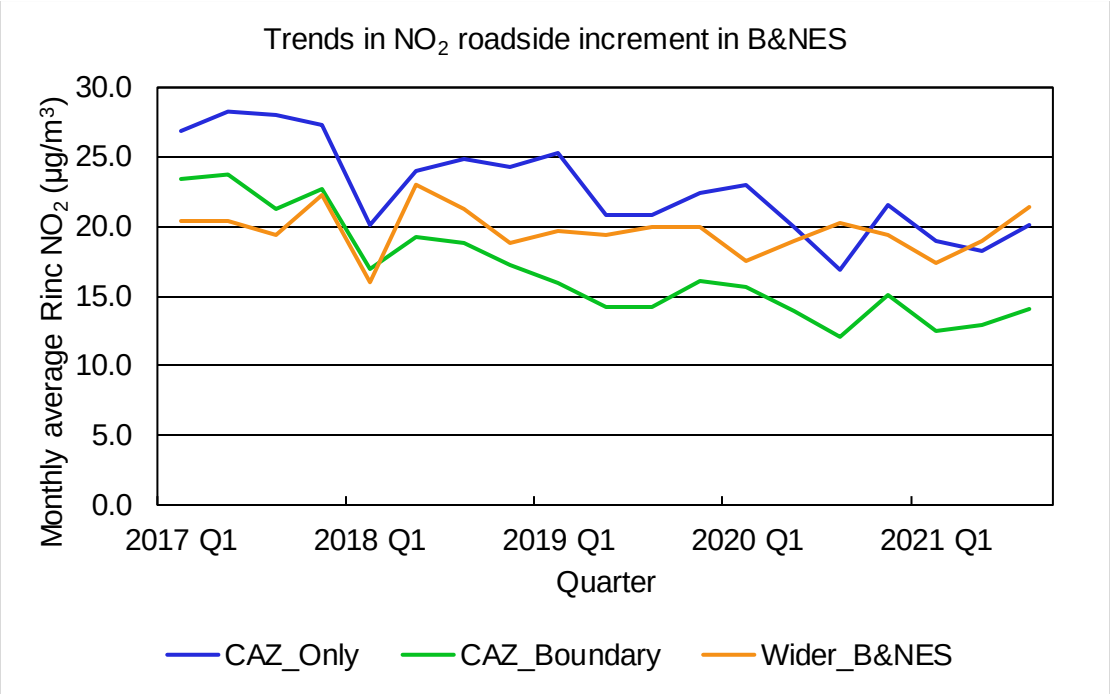
- These results only consider like-for-like data, meaning only diffusion tube sites which recorded full (all three months) quarterly data in both 2019 Q3 and 2021 Q3 are included.
- Quarters with missing months have been omitted from this analysis because average quarterly result would be skewed with less than three month's data.
- However, the full data is included in Tables 3-6 (detailing sites that recorded above 40 µg/m^3, 36 µg/m^3 or increasing NO_2 concentration, during the quarter), as well as in an appendix at the end of this report.
- Covid-19 is likely to have contributed to reductions in NO_2 concentrations. Pre-Covid statistics show that rural areas traditionally have higher rates of home working at around 32% compared with urban areas at around 13%[8]. Home working has increased significantly among urban dwellers during the pandemic.
- The natural replacement of older, more polluting vehicles with cleaner, compliant ones could also be contributing to the decrease in NO_2 concentrations.
- Clean air zones seek to improve natural replacement rates to rapidly improve fleet compliance, so it's anticipated that we see further air quality improvements.

[8] DEFRA. Statistical Digest of Rural England, 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984921/Home_Working_Dec_2020_final_with_cover_page.pdf

Roadside increment (2021 Q3)

Figure 6, below, shows the changes in traffic related NO_2 concentration derived by subtracting the background NO_2 concentration from the average NO_2 concentration in each site grouping.

Figure 6- Trends in NO_2 roadside increment (Rinc) in B&NES since 2017.



Comments and key findings:

- The roadside increment (Rinc) is useful as it demonstrates the proportion of NO_2 pollution from road traffic sources, as opposed to other sources e.g., gas boilers. It is found by subtracting the background NO_2 concentration from the monthly average roadside NO_2 levels.
- Background sites are positioned away from roads to avoid the localised pollution from road traffic. In Bath, the long-term urban background location is at Alexandra Park.
- We have sited new background locations around B&NES to improve data collection in this area and will update the process so that the site groupings have more localised background data removed once we have enough data.
- Rinc enables you to calculate what proportion of NO_2 pollution comes from vehicles on local roads, thereby giving a representative measurement of background air pollution over several square kilometres.
- In accordance with the natural fleet upgrades and the impact of Covid 19, the proportion of roadside NO_2 has decreased over time.
- In this analysis, the Bath urban background data from Alexandra Park was removed from all the site groupings to assess the Rinc.

Updated 2021 Q2 quarterly trend analysis

In our Quarter 2 report (April - June 2021) we included data in the quarterly analysis from all sites reporting data. We have since changed the way we analyse quarterly data to only include data from sites that have been in place since the baseline period, and only to include data from sites where data from all three months is available, in both the current and baseline period. We have therefore updated the Q2 results, as outlined below in Table 8.

Table 8- Quarterly average NO_2 concentrations in 2019 Q2 and 2021 Q2 in the three site groupings. The results only consider like-for-like data, meaning only diffusion tube sites which recorded full (all three months) quarterly data in both 2019 Q2 and 2021 Q2 are included.

Period	**CAZ_Only NO_2 ($\mu g/m^3$)**	**CAZ_Boundary NO_2 ($\mu g/m^3$)**	**Wider_B&NES NO_2 ($\mu g/m^3$)**
2019 Q2	32.0	24.9	30.1
2021 Q2	25.8	20.5	26.4
Change 2019 Q2 – 2021 Q2 ($\mu g/m^3$)	-6.2	-4.4	-3.6
Change 2019 Q2 – 2021 Q2 (per cent)	-19.2%	-17.7%	-12.1%
Number of sites reporting full results during both quarters	33	36	22

Comments:

The percentage decrease in NO_2 concentrations between 2019 Q2 and 2021 Q2 is now greater than the percentage decrease in concentrations that we noted in our 2021 Q2 report in September. This is because we have recently installed many more diffusion tube sites to measure the impact of the CAZ and to monitor the impact of traffic displacement. These sites are located more often in areas of pre-existing lower air quality or potential traffic displacement to assess the situation in these areas. By using only sites existing in the baseline and current quarter, we improve the robustness of the results.

It is important to note that some of the newer sites are recording poor air quality, but for the sake of establishing trends based on our original sites and recordings in our baseline year, we cannot include these figures to analyse a trend. We have instead highlighted the sites performing poorly in Tables 3-6 (sites that recorded above 40 $\mu g/m^3$, 36 $\mu g/m^3$ or increasing NO_2 concentrations, during the quarter), and in an appendix at the end of this report.

Impacts of the CAZ on traffic flow

A clean air zone is primarily designed to improve the compliance of vehicles driving in higher polluting areas, and not to influence traffic volumes i.e., it is aimed at reducing pollution, not congestion.

However, road traffic is the most significant cause of NO_2 pollution in Bath, so we monitor any changes in traffic flow in and around the zone and on the highway network around the city. This data helps us understand whether changes in traffic is negatively impacting air quality and/or road safety as a result of introducing the zone.

This section is split into four:

1. How we measure changes in traffic flow
2. Traffic flow data 2021 Q3
3. Locations of concern
4. Areas of potential traffic displacement

How we measure changes in traffic flow

We monitor where traffic is going and the volume of traffic on particular routes using manual classified counts (MTC), automated traffic counts (ATC) and automatic number plate recognition (ANPR) cameras.

To report on the CAZ, we focus on key roads inside and outside the clean air zone and on connecting highways. Traffic flows are continually monitored at various locations across the city and, for the purpose of monitoring the impact of the CAZ, are reported quarterly.

To understand the impact of the zone on changes to traffic flows, we compare 2021 Q3 data with a similar time frame before the zone was introduced. Depending on the available data, this baseline data will be from 2017 or 2018. We have discounted data from 2020 due to the unprecedented impact on traffic and travel caused by the Covid-19 restrictions, and the Council has insufficient data for the year 2019. Sometimes there is no baseline data to draw on if the monitoring location is new or temporary.

It is important to remember that not all vehicles are chargeable, and the majority of vehicles have no need to avoid the zone or seek alternative routes. By the end of September 2021, of the approximately 4,000 buses, coaches, HGV's, LGV's, taxis and PHVs entering the zone daily, only 13% percent are still required to pay zone charges. Our traffic counts record any traffic movement, regardless of the vehicle type or compliance status.

Online shopping and home-deliveries are increasing, which is leading to more commercial vehicles on the roads. In mid-September 2021, light goods vehicles increased to 112% of their pre-pandemic levels whilst heavy goods vehicles increased to 110% and cars reduced to 97%, respectively (Department for Transport statistics).

Figure 7 shows a map of the wider area, including the city of Bath, where automatic traffic counts (ATCs) are in place to analyse traffic flow. These are shown using a red diamond icon. A list of the locations used in the analysis can be found in Table 9, including the year the baseline data was recorded. These permanent ATCs were selected as they were in use prior to the introduction of the CAZ and can therefore be used for comparison purposes. Unfortunately, due to a lack of continuous historical data, some of the sites featured in the Q2 report, cannot be used in this analysis because the counts were not in place.

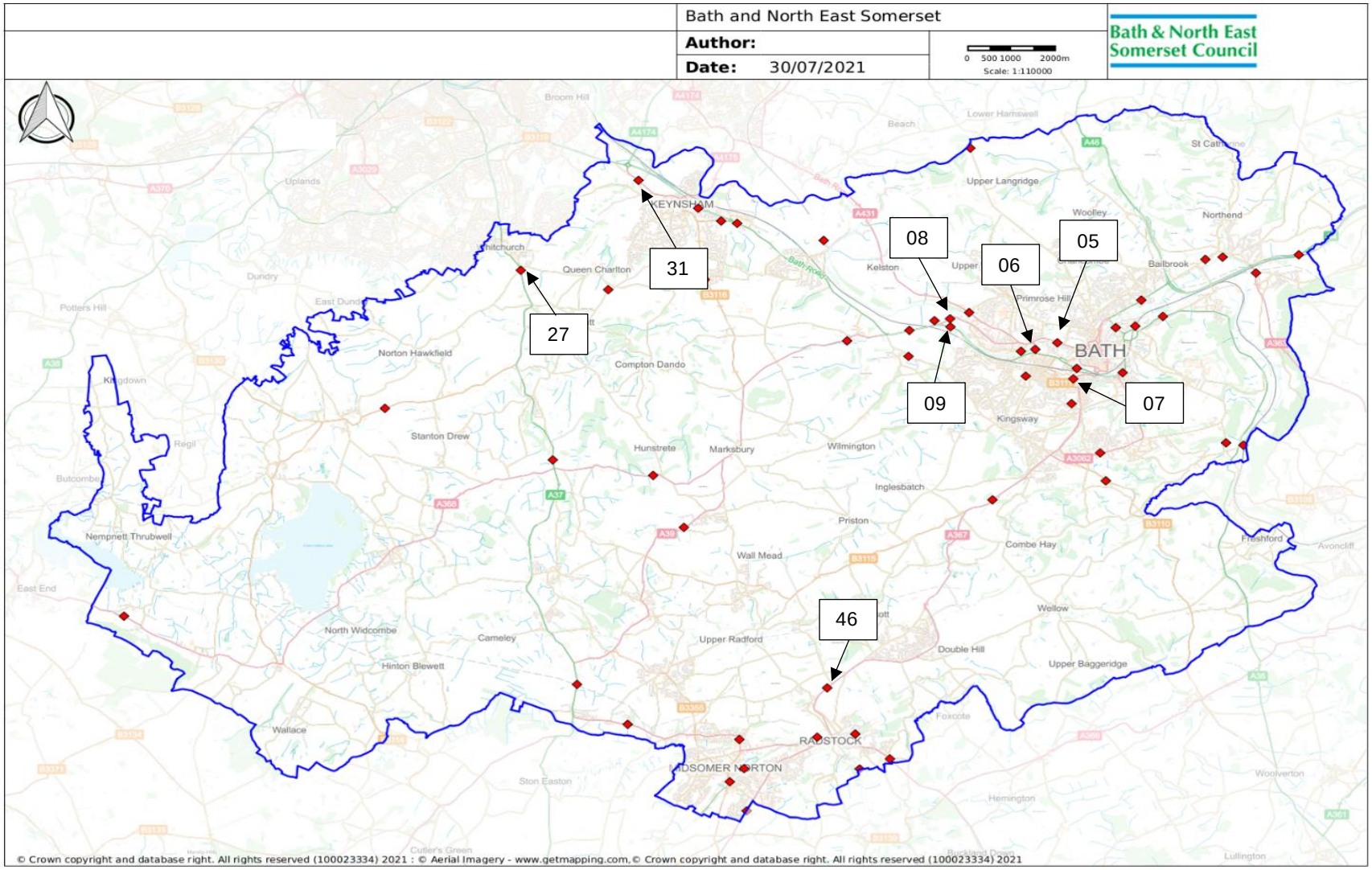
We have good baseline data from the Wider_B&NES sites (from 2018), and these sites remain unchanged from the Q2 report. We have less reliable data from within the CAZ and CAZ_Boundary as fewer ATCs located in these areas were in place during the baseline or current period. For example, ATC site 40 on Bathwick Street was removed from the analysis because it is located next to Cleveland Bridge which was closed throughout 2021 Q3.

We used three sites from outside the CAZ in both other site groupings (CAZ_Boundary and Wider_B&NES) because more data was available. Other monitoring methods such as temporary ANPR cameras will be used to monitor areas of perceived concern as per Appendix 2.

Table 9- ATC locations from Figure 7 (following page), along with their site category.

Site ID	Location	Site Category	Baseline data from year
05	A4 Upper Bristol Road, West of Marlborough Lane	CAZ_Only	2017
06	A3064 Windsor Bridge, North of Stable Yard	CAZ_Boundary	2018
07	A367 Wells Road- North of Hayesfield Park	CAZ_Only	2017
08	A4 Newbridge Road, East of A36 Lower Bristol Road	CAZ_Boundary	2017
09	A36 Lower Bristol Road, East of Newbridge	CAZ_Boundary	2018
27	A37 Bristol Road Whitchurch, South of Norton Lane	Wider_B&NES	2018
31	A4175 Durley Hill, West of Durley Lane	Wider_B&NES	2018
46	A367 Bath New Road, North of Clandown	Wider_B&NES	2018

Figure 7- ATC locations (red diamonds) used for traffic flow analysis. The number refers to the site ID which can be found in Table 9. © Crown Copyright 2021. License number 100023334.



Traffic flow data results

The data from ATCs can be used to compare traffic flows so that trends can be considered over time.

Table 10- Two-way traffic flow data for ATCs by site grouping from the last year with representative data (2017 or 2018), 2020, and 2021. CAZ_Only last representative year was 2017.

Year	Month	5-Day Average			7-Day Average		
		CAZ_Only	CAZ_Boundary	Wider_B&NES	CAZ_Only	CAZ_Boundary	Wider_B&NES
2017 or 2018	July	17630	16325	16127	16683	14931	15064
	August	16592	15644	15651	15738	14352	14763
	September	17848	16318	16823	16940	15115	15769
2020	July	13509	12884	14436	12735	11880	13580
	August	15336	13694	15300	14497	12702	14487
	September	13744	14707	15808	13161	13730	14976
2021	July	15116	15242	15729	14361	14196	14923
	August	14760	15318	15830	14084	14247	15065
	September	15717	15980	15852	14996	14944	15155

Table 11- Percentage change in average monthly traffic flows from 2017/18 to 2021. The bottom row shows the average change for the entire quarter (July-September), 2017/18 Q3 to 2021 Q3.

	5-Day Average			7-Day Average		
	CAZ_Only	CAZ_Boundary	Wider_B&NES	CAZ_Only	CAZ_Boundary	Wider_B&NES
July	-14.3%	-6.6%	-2.5%	-13.9%	-4.9%	-0.9%
August	-11.0%	-2.1%	1.1%	-10.5%	-0.7%	2.0%
September	-11.9%	-2.1%	-5.8%	-11.5%	-1.1%	-3.9%
2017/18 Q3-2021 Q3 average	-12.4%	-3.6%	-2.4%	-12.0%	-2.3%	-0.9%

Comments and key findings:

- Nationally, traffic levels have generally returned to pre-pandemic levels (Department for Transport)[9].
- Traffic flows are being monitored to understand any changes in the CAZ, in the urban area of Bath outside the CAZ, and in the wider Council area, as presented in Figure 7 (a map of the ATC locations), Table 9 (a description of the ATC locations from which we analysed data), Table 10 (the data on vehicle numbers passing the selected ATCs: in the baseline period either 2017 or 2018; 2020 for reference; this year 2021, and Table 11 (change in traffic flow between 2017/18 Q3 and 2021 Q3).
- General traffic flows (i.e. both compliant and non-compliant traffic) across an average seven-day week reduced by 12% inside the CAZ, a 2% reduction in the urban area of the city outside the CAZ, and a 1% reduction of traffic in the wider area, compared with the baseline.
- The CAZ_Only baseline figures were drawn from 2017 due to a lack of 2018 data; and we know that traffic levels have been returning to pre-pandemic levels; and the Cleveland Bridge closure has impacted traffic flows in Bath.
- **Therefore, we would heavily caveat the CAZ results in that they may not be representative of true traffic flows during the current period.**
- The data from the available permanent ATC's are, in general, showing that levels of traffic outside of the zone's boundary in Bath has not increased because of the zone, when compared to the baseline year.
- Traffic flows fell dramatically in 2020 due to Covid-19 and lockdowns. Traffic levels are returning to pre-pandemic levels, but increased home-working and changes in business models continue to impact traffic flows.

Locations of concern

We are carefully monitoring traffic where average NO_2 concentrations remain above 40 µg/m^3 for 2021 Q3, and where concentrations have increased. In some locations we have traffic flow data collected from either ATCs or CAZ ANPR cameras, which are located very close to diffusion tube sites. These locations can be used to assess the relationship between traffic flows and NO_2 concentration in a specific location. It is important to recognise vehicle emissions are not the only source of NO_2, so traffic volume and composition is not the only determining factor in the total NO_2 concentration.

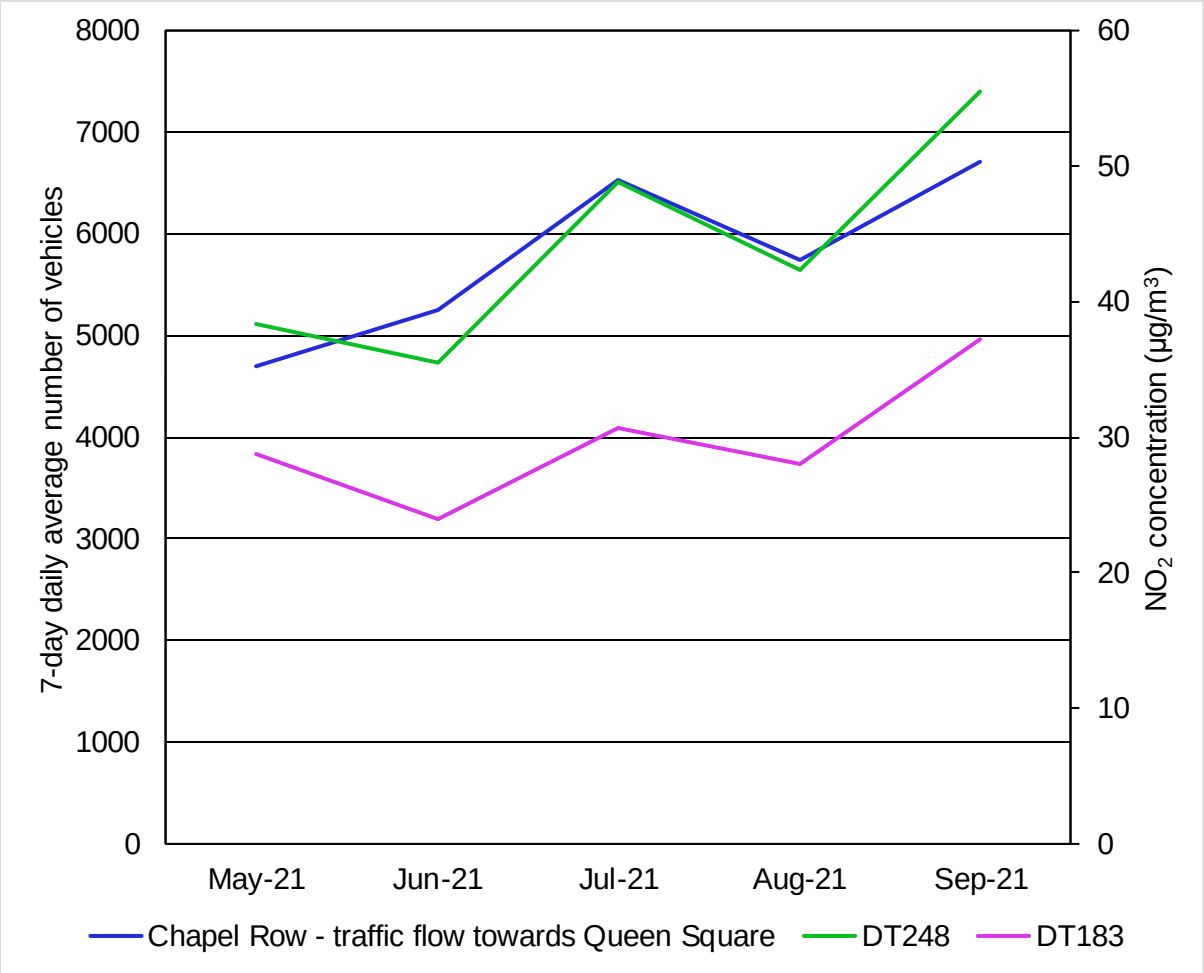
In 2021 Q3, of the four sites which recorded an average NO_2 concentration above 40 µg/m^3 as well as increased NO_2 concentration, when compared to 2019 Q3 (Broad

[9] Department of Transport statistics from the Office for National Statistics. Economic activity and social change in the UK, real-time indicators, 2021 https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/economicactivityandsocialchangeintheukrealtimeindicators/23september2021

Street 4, Chapel Row 2, Victoria Buildings, Wells Road), there are two sites (Chapel Row 2 and Wells Road) which have both diffusion tube data and traffic flow data located within 20 metres of each other.

At Chapel Row, NO_2 concentrations have increased in recent months and it appears the likely cause is an increase in the traffic volume through this area.

Figure 8- One-way traffic flow on Chapel Row (towards Queen Square) plotted alongside NO_2 concentrations of two diffusion tubes (DT248 and DT183).



Work on Cleveland Bridge started on 4 May 2021 and closed to traffic on 28 June 2021. The official diversion directs vehicles over Windsor Bridge, with expected increases in traffic on the A4 and A36. Vehicles below 7.5 T are able to use central routes through Bath. Traffic flows over the summer have been affected by the closure with drivers finding alternative routes through Bath. As of November 2021, the bridge has reopened to light traffic.

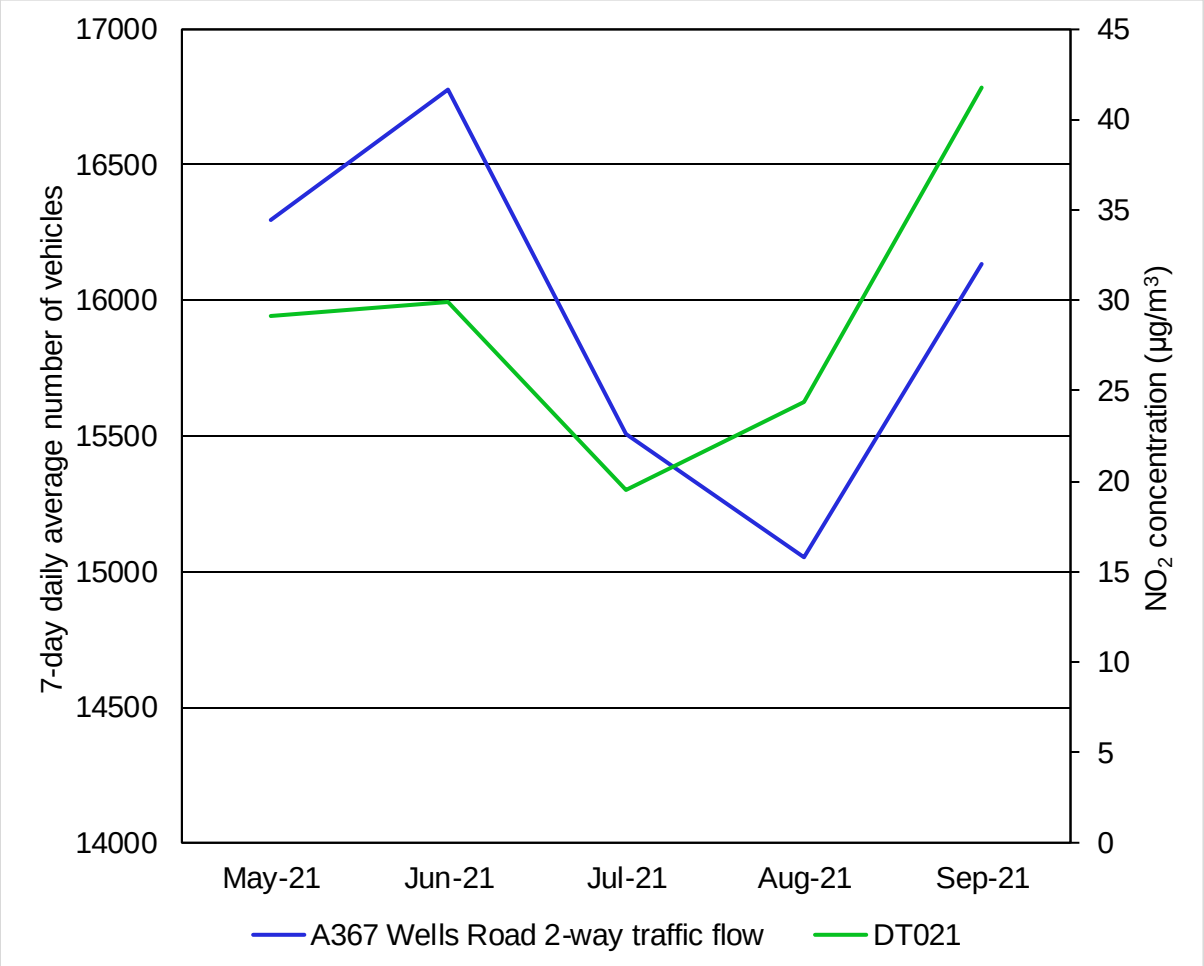
The cause of the increased traffic volume on Chapel row (towards Queen Square) is linked to the Cleveland Bridge diversionary route. From the closure of the bridge in late June, there was an increase in traffic flow northwards from Charles Street to

Queen Square from around 5,300 vehicles per week to around 6,500 per week by July, as seen in Figure 8. The NO_2 concentrations at both diffusion tubes located on Chapel Row, mirror the traffic flow trend into Queen Square. DT248 is located on the north side of the road (the side the traffic flow data comes from) whilst DT183 is located on the south side of the road.

The other site which has both ATC and diffusion tube locations within a short distance of each other, is Wells Road. The two-way traffic flow and closest diffusion tube are shown in Figure 9. Again, the trend for NO_2 concentrations, closely follows the trend for traffic volumes. These results demonstrate how fluctuating traffic flows can directly affect local air quality.

We will continue to monitor the impact of changing traffic flows and how we can reduce the air pollution at these locations.

Figure 9- Two-way traffic flow on A367 Wells Road (north of Hayesfield Park) plotted alongside NO_2 concentration of diffusion tube site Wells Road/ Upper Oldfield Park (DT021).



Areas of potential traffic displacement

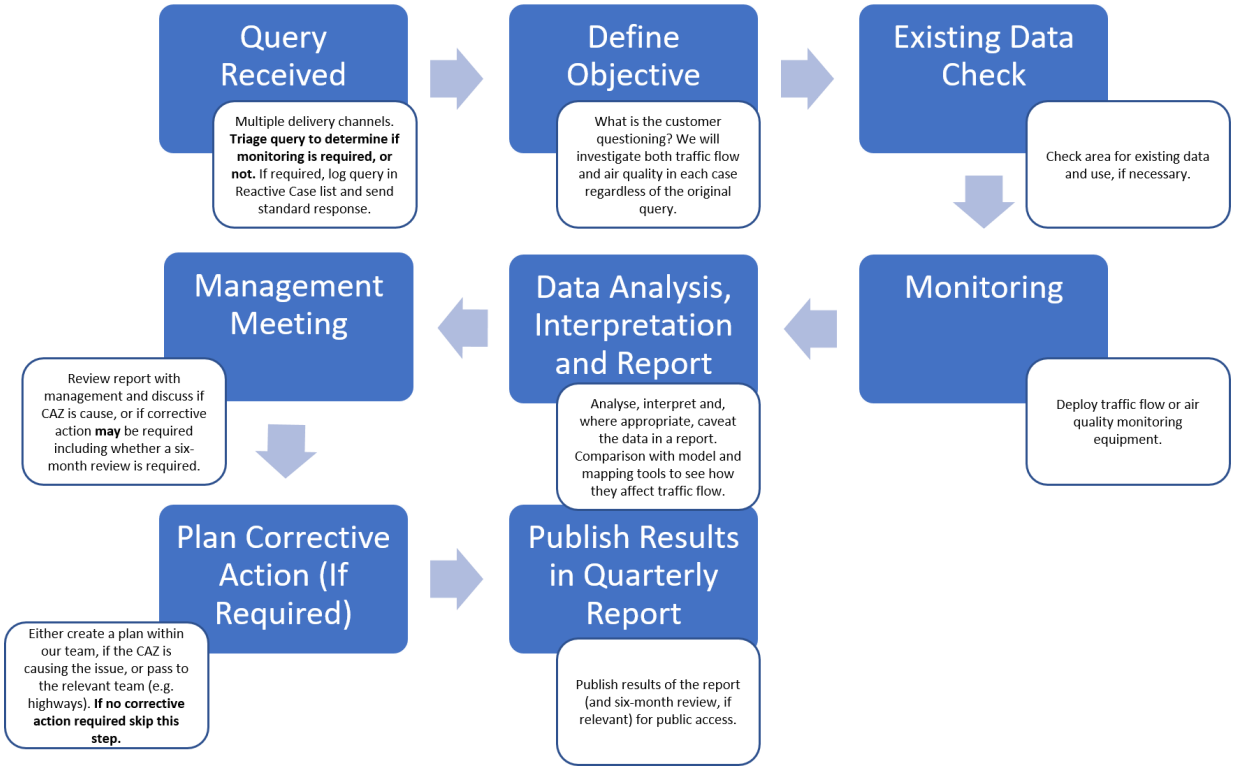
A key commitment of the Council during the business case development stage of the project was to monitor any concerns arising from the introduction of the CAZ. The purpose of the CAZ is to improve vehicle compliance rates whilst minimising the impact on normal traffic flows. Nationally, average traffic volumes returned to at least pre-pandemic levels and usage of LGVs and HGVs on the network are now exceeding pre-pandemic levels (Department for Transport).

We are actively investigating 18 discrete locations where the public have expressed concern about a perceived increase in traffic in their communities since the launch of the CAZ. All locations logged and active are set out in Appendix 2.

How we're investigating possible traffic displacement

From the launch of the CAZ in March 2021, comments from residents about potential CAZ-related impacts have been logged and investigated. Figure 10 shows the process we have put into place when following up these queries.

Figure 10- A process map showing the details of the traffic displacement process followed when a query is received.



Comments about traffic displacement:

- The pandemic was an unforeseen event that was not predicted and inevitably, traffic flows have been impacted in a way outside of any modelling done for the Full Business Case. In early 2021, there were lower levels of traffic, particularly cars, although the increase of home deliveries has increased to a record 35% of all retail spend[10], which accounts for a proportion of the greater numbers of LGVs and HGVs in local communities. As lockdown restrictions have lifted the numbers of commercial vehicles have increased beyond pre-pandemic levels.
- It is unsurprising that reports of increased numbers of commercial vehicles have been received and people are understandably concerned the reason for these changes is the CAZ, as it commenced as pandemic restrictions were being lifted.

Overview of cases:

Please see Appendix 2 for more detailed traffic displacement monitoring information.

- Some cases required temporary ANPR camera installation to allow for detailed vehicle classification, to understand the types of vehicle classes using the routes.
- We installed ANPR cameras at Lyndhurst Road (Oldfield Park), Whiteway Road and Lansdown Lane to understand the vehicle classification in these areas.
- There were some increases in the numbers of LGVs and HGVs at some of these locations. Small increases were predicted at some of these locations in the traffic modelling forecasts in the Full Business Case. Some of the increase will be attributed to the general increase in these commercial vehicles as previously. Further, the closure of Cleveland Bridge has disrupted traffic flows.
- We will be carrying out further monitoring at these three sites in 2022 to understand the state of the traffic flow once the situation has stabilised.
- We are reviewing the weight restriction limits on Old Newbridge Hill by introducing a new Traffic Regulation Order, as a result of monitoring undertaken showing larger vehicles were using the hill inappropriately.
- We are aware that recent monitoring at Charlcombe Lane may have been affected by conditions not representative of normal traffic flow in the area. Therefore, further monitoring is being carried out and data will be re-analysed.
- We are continuing to monitor NO_2 concentrations at Twerton High Street.
- Monitoring at Shophouse Road, Prior Park Road, Bradford Road and Brassknocker Hill, Penn Hill Road, Englishcombe Lane, Norton St Philip and Cavendish Road will be reviewed in 2022.
- We completed monitoring at the following locations where no discernible increase or concerning traffic issues were found: Colliers Lane, Upper Camden Place, Southdown Road, Rosemount lane and Sham Castle Lane. We will review each case 6-months from the original monitoring.

[10] ONS. Retail sales, Great Britain: January 2021. https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/january2021

The impact of the CAZ on fleet compliance

Vehicles contribute approximately 80% of nitrogen oxide (NO_x) emissions in the vicinity of the main roads in Bath. Older vehicles generally emit more NO_x as recent technological advances in selective catalytic reduction has led to a lowering of NO_x emissions from vehicles, particularly those of a Euro 6 standard.

The purpose of the clean air zone is to speed up the natural replacement of older, more polluting vehicles with cleaner, compliant ones that meet the city's minimum emission standards. It does this by levying charges on owners of non-compliant vehicles that don't meet emission standards (i.e., pre-euro 6 diesel and pre-euro 4 petrol vehicles), so that they are incentivised to upgrade or replace their vehicle sooner than they might otherwise do (to avoid paying a daily charge).

In Bath, financial assistance is available to help support businesses and individuals that need help to do this, mitigating the impact of charges.
Improvements in Bath's fleet are brought about in the following ways:

- Naturally as part of regular fleet upgrade programmes and because of pressure on manufacturers from government, environmental organisations and the public to improve vehicle emissions.
- More recently and locally, as a specific reaction to the introduction to Bath's CAZ and other zones around the country e.g., drivers bringing forward plans to upgrade or replace older vehicles to avoid charges.
- And in response to direct Council and government-funded interventions to encourage upgrades, including a bus retrofit scheme and the financial assistance scheme which offers grants and or interest-free finance to those regularly driving in the zone to replace non-compliant vehicles.

To understand whether the clean air zone is working to reduce emissions and air quality, we are monitoring rates of vehicle compliance in the zone.

How we measure fleet compliance in Bath

We measure changes in fleet composition using data gathered from 68 automatic number plate recognition (ANPR) cameras positioned around the perimeter of Bath's Clean Air Zone, and within the zone itself. Where traffic displacement concerns have been raised outside of the zone and we have determined that there is an increase in traffic flow, additional traffic and compliance monitoring is being undertaken using temporary ANPR cameras. See: Appendix 2.

The camera captures individual number plates which are then cross referenced with a DVLA vehicle database to establish the number of vehicles in the zone on any given day, the type of vehicle captured in the zone e.g. bus, HGV, van etc., its age,

and the euro standard of the vehicle (if available). This enables us to understand the number of compliant vehicles seen in the zone (and in areas of potential traffic displacement) as a percentage of total vehicles driving in these areas each week.

To understand how fleet compliance in the zone has changed as a result of introduction of the CAZ, we are looking at weekly data from the cameras since the zone launched. We will include data from our additional temporary monitors in future quarterly reports.

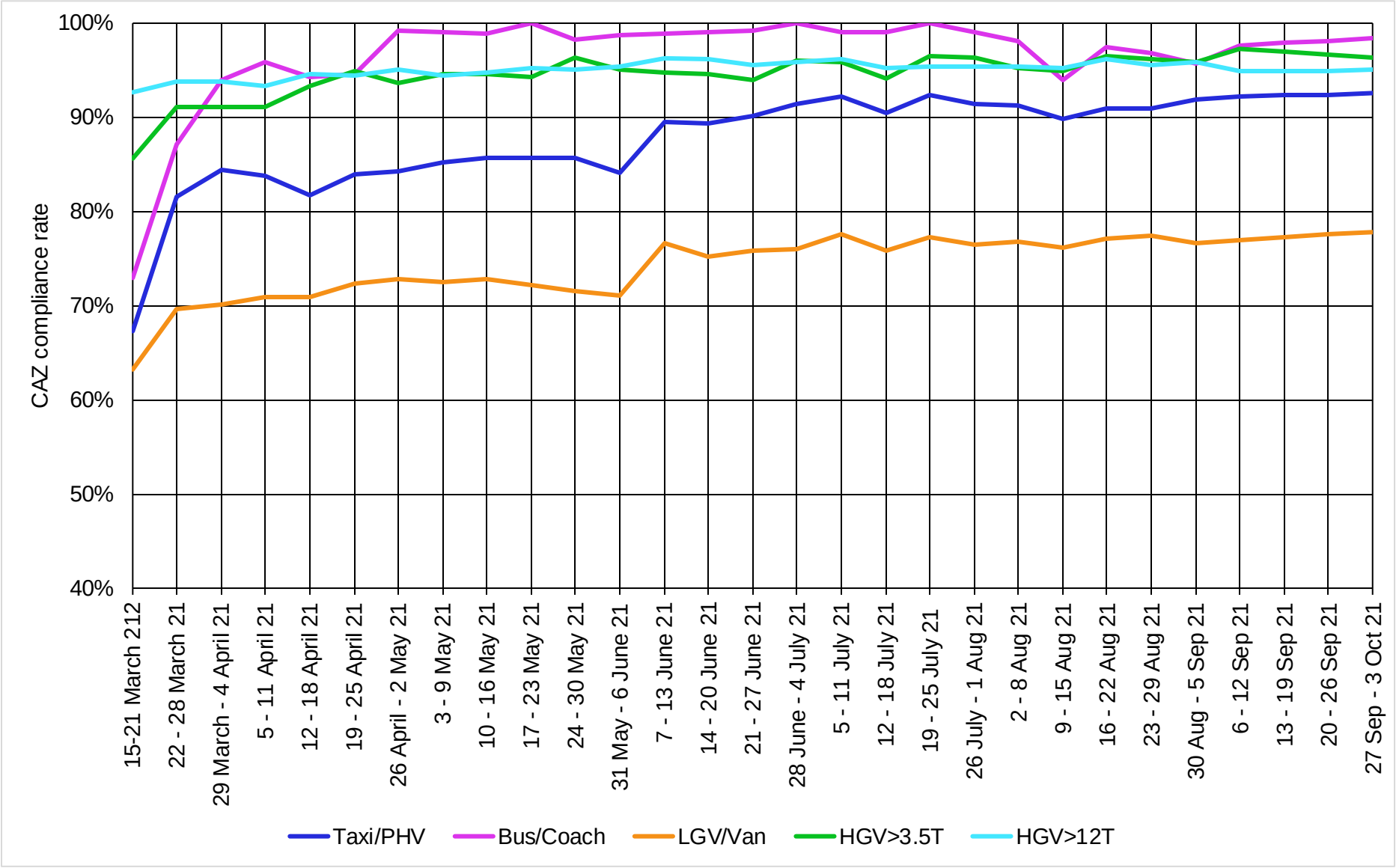
Vehicle compliance data for Bath CAZ

Figure 11 (below) shows the vehicle compliance rates within the CAZ as a 7-day average, since the CAZ launch.

Comments and key findings:

- A vehicle is compliant when it meets the minimum emission standards for Bath's CAZ i.e., it's either euro 6 diesel, euro 4 plus petrol, hybrid, alternatively fuelled vehicles or an electric vehicle.
- 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.
- An average of 709 non-compliant vehicles was seen in the zone each day, during 2021 Q3 compared to 1742 during the launch week in March, a decrease of 59%.
- An average of 40,358 unique vehicles were seen in the zone each day during the quarter, which is comparable to the 40,799-daily average for 2021 Q2.
- Most vehicles recorded in the zone are private cars, with an average 29,485 unique private cars seen in the zone each day during 2021 Q3. This equates to 72% of all vehicles in the CAZ.
- Bus/coach compliance rate averaged 98% during the quarter, with an average 111 individual vehicles seen per day.
- HGV (>12 tonne) compliance rate averaged 96% during the quarter, with an average 264 individual vehicles seen per day.
- HGV (>3.5 tonne) compliance rate averaged 96% during the quarter, with an average 108 individual vehicles seen per day.
- Taxi/ private hire vehicle compliance rate averaged 91% during the quarter, with an average 418 individual vehicles seen per day.
- Light goods vehicles/ vans compliance rate averaged 77% during the quarter, with an average 2997 individual vehicles seen per day.
- Rates of compliance are anticipated to continue to improve in the next quarter, particularly with respect to the supply of compliant LGVs which have been impacted most significantly by the pandemic.
- Compliance has been encouraged and supported through the government-funded bus retrofit and financial assistance scheme, in addition to drivers upgrading outside of the scheme.

Figure 11- Vehicle compliance rates within the CAZ as a 7-day average.



Bathampton in-depth analysis

Prior to introducing the zone within Bath's city centre further areas were modelled for inclusion subject to traffic and air quality monitoring. One potential outlier zone included Bathampton, which would include Bathampton Lane, Down Lane, Devonshire Road, and the High Street.

During consultation there were concerns that the current boundary would lead to large amounts of traffic diverting over the toll bridge and through Bathampton, resulting in increased congestion and air pollution concentrations. However, modelling predicted that traffic was not expected to increase excessively across the toll bridge and it did not indicate that NO_2 concentrations would exceed the 40 µg/m^3 limit value.

To ensure that the models were accurate and that Bathampton did not see an increase in traffic volumes after the implementation of the category C charging zone, a plan of monitoring was introduced whereby five ANPR cameras were installed within Bathampton and on the toll bridge. The data from these cameras allows a post-CAZ comparison to be drawn from any existing data, so any changes in traffic flow could be understood.

Findings and results

Figure 12, below, shows the per cent of vehicle types recorded on the ANPR cameras within Bathampton in June/July 2021. 'Other' includes motorcycles, tractors, minibuses, and smaller HGVs.

Key findings and comments:

- In 2018 cars accounted for 82% of traffic in Bathampton and light goods vehicles accounted for 14%. Figure 12 shows that in June/July 2021, after the launch of the CAZ, cars and light good vehicles were split 85/14% respectively.
- Due to the charge associated with non-compliant light goods vehicles it was of concern that these vehicles may divert through Bathampton to avoid zonal charges. However, the data suggests that this is not the case.

Figure 12- Per cent of vehicle types recorded within Bathampton

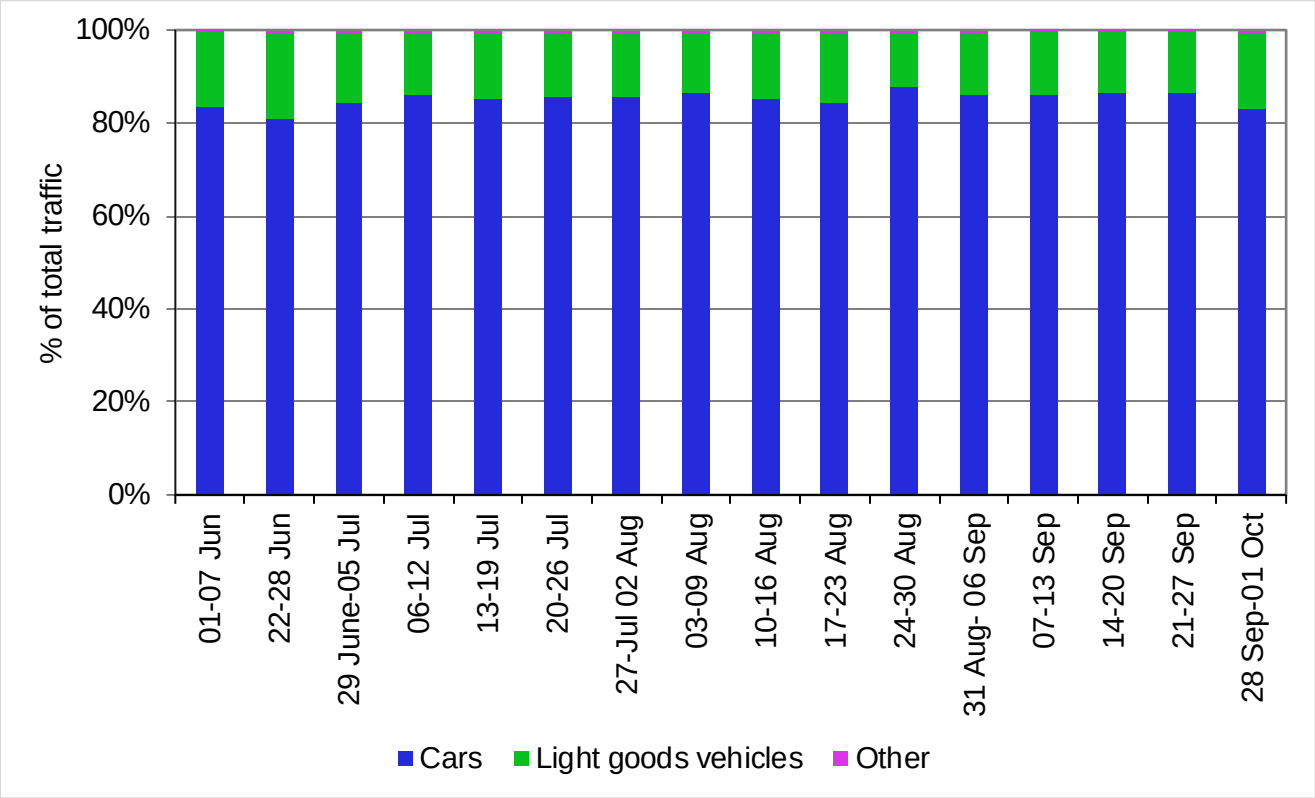
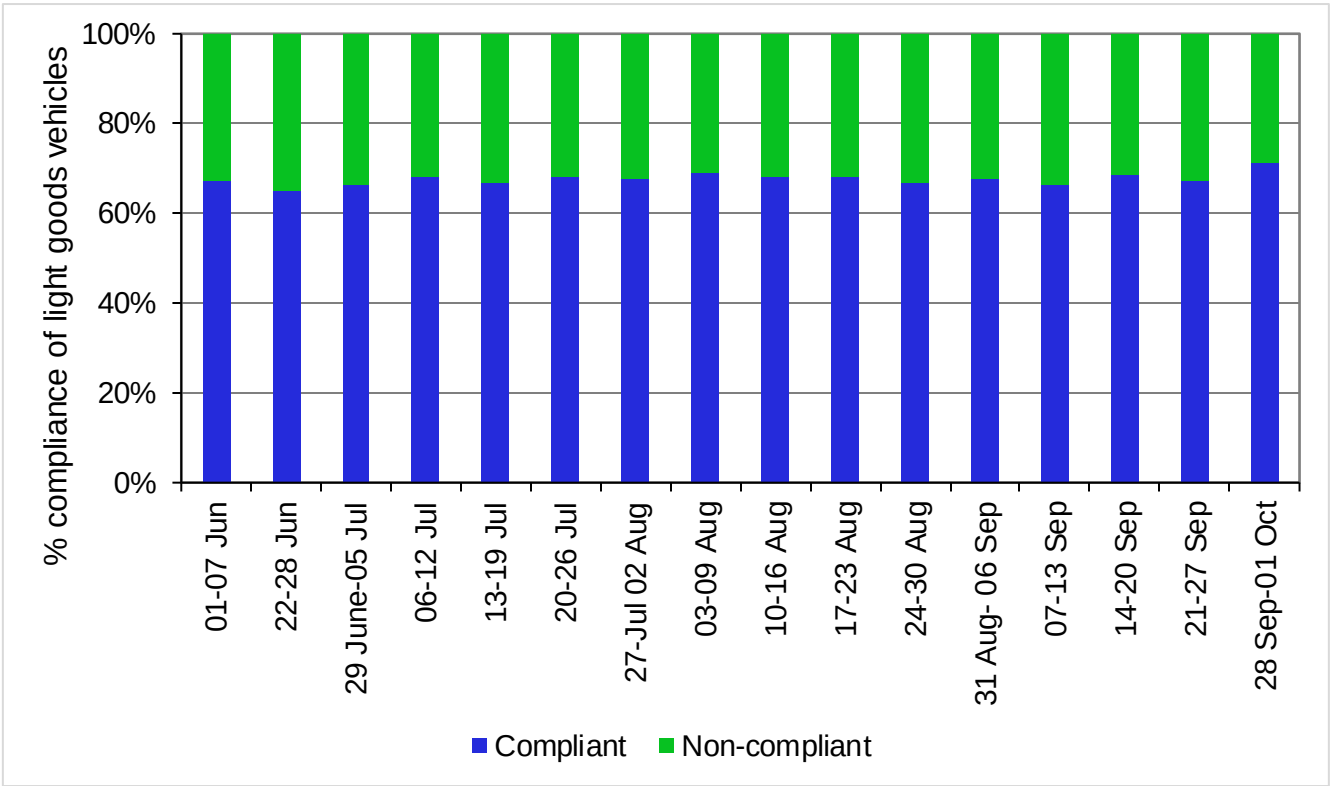


Figure 13- Compliance split of light goods vehicles recorded within Bathampton



Compliance split of vehicles

Figure 13, above, shows the compliance split of the light goods vehicles registered on the ANPR cameras within Bathampton in June and July 2021.

Key findings and comments:

- In assessments carried out in 2017 as part of the Bath Clean Air Plan business case development, 86% of light goods vehicles were non-compliant. The Bath Clean Air Plan forecast that a 'do-nothing' scenario with natural fleet improvement would lead to a compliance rate of 58% in 2021.
- Figure 13 shows that with the CAZ in place, on average 68% of light goods vehicles within Bathampton in June and July 2021 were compliant.
- This suggests that non-compliant vehicles are not diverting through Bathampton to avoid zonal charges.

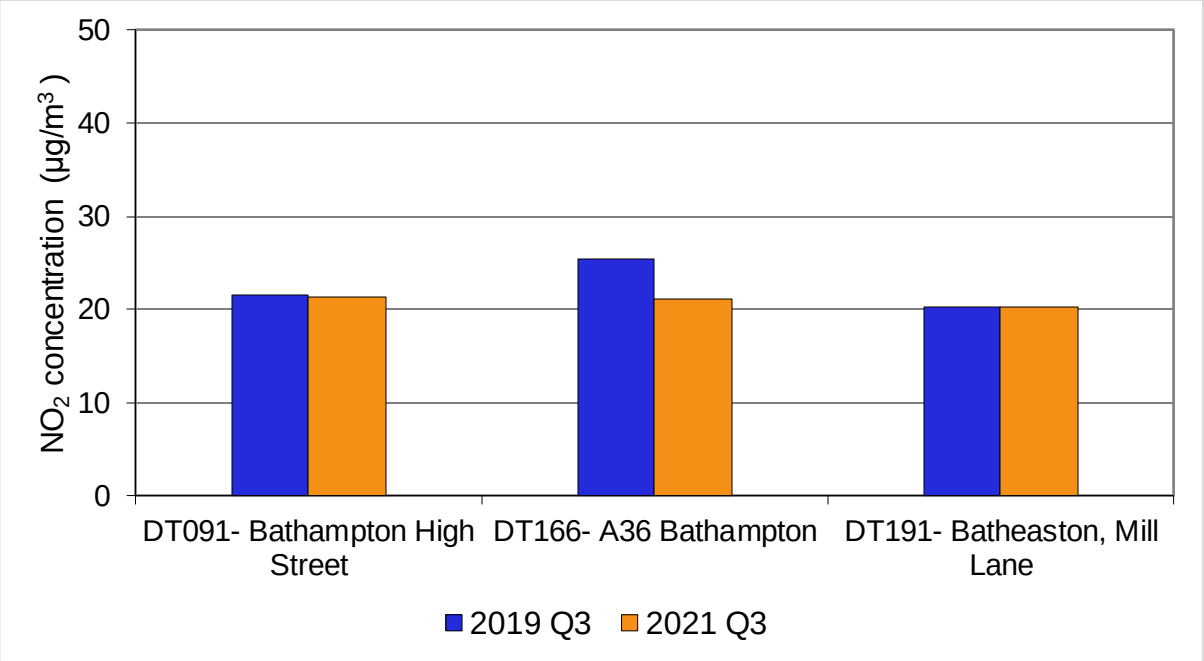
Air quality

Figure 14, below, shows the quarterly average NO_2 concentrations at sites around Bathampton for 2021 Q3 compared against our baseline (2019 Q3).

Key findings and comments:

- All quarterly average concentrations of NO_2 are below 40 µg/m^3.
- Concentrations at Bathampton High Street and A36 Bathampton have reduced.
- Concentrations of NO_2 at Batheaston Mill Lane remain at 20 µg/m^3 for both 2019 Q3 and 2021 Q3.

Figure 14- Trends in NO_2 concentrations at sites near Bathampton



Bus retrofit upgrade programme

Traffic and air quality modelling prepared for the approved CAZ Final Business Case included the assumption that all scheduled public bus services would be compliant (euro VI) standard by its launch. At the time, 87 out of a fleet of 226 scheduled buses operating in Bath were non-compliant.

To prepare for launch, the Council secured government funds to support bus operators to upgrade the remaining 87 buses with engine emissions abatement technology as certified by the Clean Vehicle Retrofit Accreditation Scheme (CVRAS).

In autumn 2020, agreements were finalised with six bus operators to commence installation of the retrofit technology as soon as possible. In addition, two buses not operating as a public-registered bus service (Wessex Water) were upgraded and some coaches were retrofitted through the Council 's financial assistance scheme.

Approximately £1.7 million was awarded as part of an implementation fund towards grants to operators to retrofit buses operating on public registered bus services.

Comments:

- By the end of September 2021 (six months after the launch of the zone), 84 out of a total of 87 non-compliant buses operating as public buses in central Bath were successfully retrofitted with emission abatement technology.
- Preliminary reporting suggests that on average the NOx reduction for retrofitted vehicles exceeds the 80% target set as part of CVRAS and therefore the vehicles are operating in line with compliant/Euro 6 standards.
- Overall compliance for buses is close to 100% and most of the final retrofits are scheduled for completion by the end of 2021.

Financial assistance scheme

To mitigate the impact of charges and further support air quality improvements, the Council has invested £9.4 million of government funds in a financial assistance scheme that offers grants and interest-free loans to businesses and individuals wishing to replace non-compliant, chargeable vehicles with cleaner, compliant ones.

Businesses and individuals could apply for funding to upgrade or retrofit the vehicle if they passed a basic eligibility test, proving that they travel at least two days per week on average over a 60-day period. Those passing the test could then apply for grants and/or interest loans via the Council's approved vehicle asset finance providers.

Table 12 below shows the number of vehicles that, by the end of September, were eligible to be replaced and the number of vehicles replaced. The Council expects to help replace up to 1,500 non-compliant vehicles regularly travelling in the zone by the end of 2021.

Table 12- Vehicles eligible for the financial assistance scheme and the number of vehicles already replaced up to the end of September 2021.

Vehicle category	Number vehicles eligible for FAS funding to upgrade/ retrofit	Number vehicles upgraded at end of Sept 21
M1 (taxis or private hire vehicles; as private cars are compliant)	148	82
M2 (minibuses)	4	2
M3 (buses and coaches)	21	18
N1 (light goods vehicles i.e. vans)	1288	476
N2; N3 (heavy goods vehicles <12T; HGVs >12T)	34	13
Total	1495	591

*The two minibuses upgraded are considered LGVs so will be discussed with LGVs and vans in the comments

Comments:

- The Council's financial assistance scheme is on track to replace around 1,500 non-compliant vehicles with cleaner compliant ones by the end of 2021.
- By the end of September 2021, 1,495 vehicles have passed basic eligibility tests, and 591 vehicles have already been replaced.

- 478 non-compliant LGVs (including 2 minibuses) regularly travelling in the zone and 82 taxis/PHVs have already been replaced through the scheme
- HGVs already have a higher compliance rate across the UK and in Bath and were therefore not a priority for the financial assistance scheme. However, 34 HGVs regularly travelling into Bath have been approved for finance and 13 have been replaced.
- Owners whose vehicles have passed eligibility tests can then approach the Council's approved list of finance providers to secure grants and interest free finance to replace their vehicles.
- To date, 167 vehicles have been approved for the affordability exemption
- Only 11% of all those who passed eligibility tests have failed financial checks with the Council's finance providers. These businesses/individuals have been offered exemptions in the zone for up to 2 years.
- At the end of September, approx. £3.4 million had been spent upgrading and retrofitting vehicles via the financial assistance scheme.

Conclusions

The Council is committed to reporting on the impact of the CAZ on air quality, traffic flow and vehicle compliance on a quarterly basis so that we can monitor progress towards our target. This target is to reduce NO_2 concentrations to within the annual mean concentration of 40 µg/m^3 by the end of 2021 at all individual monitoring locations in Bath. This report has set out related data and key findings from July to September 2021, and, as highlighted in our Executive Summary, the emerging trends are encouraging.

Air quality

We are heartened to note that provisional average nitrogen dioxide (NO_2) concentrations within the CAZ for 2021 Q3 are 14% lower than the same period in 2019 Q3, representing a reduction of 4.1 µg/m^3. There was an average reduction of 9% or 1.9 µg/m^3 in the CAZ_Boundary site grouping.

We also note that despite this general improvement, quarterly average concentrations of NO_2 at nine monitoring sites still exceed 40 µg/m^3 and we will continue to monitor these sites closely. However, compared with baseline data for the same quarter in 2019 (Q3), six fewer sites recorded NO_2 concentrations over 40 µg/m^3 and twelve fewer sites recorded NO_2 concentrations over 36 µg/m^3, which indicates progress towards our target.

Traffic flow

Nationally traffic flows have returned to pre-pandemic levels. Average traffic flows in the CAZ_Boundary, were 2% lower than the baseline. Average traffic flows in the Wider_B&NES region were 1% lower than the baseline. These reflect roughly what we would expect for the quarter. Importantly, we note that levels of traffic outside of the zone's boundary in Bath has not increased because of the zone, when compared with the baseline.

Average traffic flows within the CAZ have probably returned to around pre-pandemic levels, however the closure of Cleveland Bridge has impacted traffic flows around Bath. The two sites we have data from show a 12% decrease in traffic when compared to the baseline, but we do not believe this to be representative.

A key commitment of the Council is to monitor any concerns arising from the introduction of the CAZ, and while traffic flows have been substantially impacted and changed by the Covid-19 restrictions, we are investigating several locations where the public have expressed concerns over a perceived increase in traffic in their communities since its launch. These are outlined in Appendix 2.

Vehicle compliance

The aim of the zone is to improve the emission standards of vehicles driving in Bath. An average of 709 non-compliant vehicles were seen in the zone each day, during 2021 Q3 compared to 1742 during the launch week in March, a decrease of 59%. This is despite the overall number of vehicles travelling in the zone increasing each week as lockdown eased, to around 40,500 unique vehicles per day during 2021 Q3, the vast majority of which are private cars.

91% of all taxis now entering the zone are compliant, compared with 67% prior to the zone's launch. And at the end of September 2021, 84 out of 87 non-compliant public buses on scheduled routes in Bath have now been upgraded to meet standards. Apart from three, all the city's scheduled bus fleet (226 buses) should be compliant by the end of 2021.

To support the natural replacement of vehicles that happens as a result of a charging CAZ, the Council is on course to support the replacement of 1,500 non-compliant vehicles (regularly travelling in the zone) by the end of the year. So far, 591 vehicles have been replaced, including 478 vans. 1,495 vehicles have passed the Council's eligibility tests, so hundreds more vehicles are due to be replaced in the coming months.

Next steps

As we move in to the fourth and final quarter of 2021 we will continue to review and monitor air quality, traffic flows and vehicle compliance rates with a view to publishing our annual report for the whole of 2021 in Spring 2022. By this time, we will also have a better understanding of how the Council will demonstrate achieving success with the Ministerial Direction as the roadmap for this is being determined by Joint Air Quality Unit (JAQU).

The high levels of NO_2 recorded in Bath present a public health risk that's not acceptable to the Council, or to central government. Any amount of pollution can be damaging to our health, but the more pollution you are exposed to, the greater the risk and larger the effect. Some people are more vulnerable to the impacts of air pollution than others. Those more at risk from air pollution include children, pregnant and older people; people with lung conditions such as asthma, chronic obstructive pulmonary disease (COPD) and lung cancer; and people with heart conditions such as coronary artery disease, heart failure and high blood pressure.

We'd therefore like to thank the public and businesses for their commitment to supporting the Council to improve air quality in the city, especially those that have upgraded their vehicles or sought support from the Council to upgrade or replace vehicles. We continue to urge all residents to do their bit by walking, cycling, or taking public transport whenever they can.

Monitoring Explained

Air Quality Monitoring Techniques

There are multiple methods whereby data on air quality is obtained.

Automatic Analyser

High-resolution measurements can be taken by automatic analysers that draw in ambient air. There are four of these instruments located within B&NES that are constantly monitoring air quality. The locations of the automatic analysers can be seen in Figure 2. One of the automatic analysers makes up part of the Automatic Urban and Rural Network (AURN) which feeds back to a national monitoring network. The data produced by these machines is compared with that of diffusion tubes to ensure accurate results.

Diffusion Tubes

Less expensive than automatic analysers, diffusion tubes can be located on existing street furniture. Due to the ease of deployment, hundreds of diffusion tubes can be located within a district building a picture of air pollution over a large area. Current locations of diffusion tubes can be seen in Figures 2 and 3. The tubes are exposed to ambient air for one month, before being sent to a laboratory for analysis. Data is then adjusted to consider laboratory or other inaccuracies before an annual mean is derived. Diffusion tubes are passive samplers and consist of a small plastic tube containing a chemical reagent called triethanolamine (TEA), in the case of NO_2 monitoring.

Traffic Monitoring Techniques

There are multiple methods whereby data on traffic flow and composition is obtained.

Automatic Number Plate Recognition (ANPR)

As part of the CAZ project, ANPR cameras were installed within and at entry/exit points to the zone, forming a cordon. The cameras focus on the numberplates of vehicles and then the vehicle information can be drawn from the DVLA database. Further useful data can be generated from matching entries into the system. For example, journey times through the CAZ.

Automatic Traffic Count (ATC)

Permanent Automatic Traffic Counters

As part of ongoing traffic monitoring, that was in place pre-CAZ, there are permanent ATCs at multiple locations in the district. Current locations of ATCs can be seen in Figure 8. These counters are built into the road and continuously monitor data on vehicle volume, speed and classification.

Temporary Radar Automatic Traffic Counters

To quickly respond to potential traffic displacement issues, it is important to have monitoring equipment that is ready to deploy at short notice. Temporary radar ATCs can be fastened to existing street furniture and monitor vehicle volume and speed.

Video Survey Equipment

Much like Temporary radar ATCs, video survey cameras are easy to install on existing street furniture, at short notice. These cameras do no record vehicle speed but do record vehicle volume and classification, which can be useful in cases where it is important to know the type of vehicles using a route. These cameras can be used to assess how many vehicles enter/ exit junctions, which can be important.

Manual Traffic Counts

At times, manual traffic counts are superior to automatic equipment. Enumerators can be employed to manually count vehicles passing a specific point.

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Appendix 1: Measuring the impact of the CAZ – Reporting timeline

Table 13 below is taken from the Monitoring and Evaluation Plan in the Full Business Case for Bath's Clean Air Plan and identifies the data that's required to measure the impact of Bath's Clean Air Zone on specific areas, the rationale for including it, how the data is collected and at what frequency.

Table 1 - Data collection and collation as planned from the Monitoring and Evaluation Plan.

Measure	Data to be Used	Rationale for Inclusion	Data Collection Methods	Frequency of Data Collection
M1: Air quality data	NO_2 concentrations data collected at existing monitoring locations in Bath and wider B&NES	To understand changes in air quality data, particularly NO_2 concentrations.	Diffusion tubes and real time monitoring	Baseline (pre-scheme) then continuous monitoring.
M2: Traffic Flows	Traffic Flows in and around the CAZ areas will be collected to understand the changes in traffic flows as a result of the scheme.	To understand changes in traffic flows along key corridors and links on the highway network. This will include possible 'rat-run' routes which may have been created by the CAZ, so responding to consultation concerns by residents in specific areas.	ANPR cordon and ancillary Manual Classified Counts (MTC) or Automated Traffic Counts (ATC) on key roads or perceived 'rat-runs'	Baseline (pre-scheme) then continuous monitoring.

Measure	Data to be Used	Rationale for Inclusion	Data Collection Methods	Frequency of Data Collection
M3: Vehicular fleet information	Number of compliant/non-compliant vehicles travelling within Bath	To understand changes in the type of vehicles travelling in Bath.	ANPR cordon, cross-referencing with DVLA vehicle database	Baseline (pre-scheme) then continuous Monitoring.
M4: Retail/business/office space vacancy figures	Vacancy statistics from internal council data (B&NES economy and growth team). Market data from property consultants. Purchasing Managers Index.	To understand changes to the number of businesses operating in Bath in order to assess economic impacts.	Internal data collection as part of ongoing process. Regular property market reports published by property consultants in the public domain could also be utilised.	Baseline (pre-scheme) then annually.
M5: Retail footfall surveys	Footfall data from Bath Business Improvement District data and internal council data.	To understand changes to the number of people entering shops in Bath as well as the time they spend in each shop.	Bath BID and B&NES collect this data as part of ongoing processes.	Baseline (pre-scheme) then annually.
M6: Park and Ride passengers data	Occupancy statistics (Cloud Amber) and bus ticket data (First). Monitor fleet mix	To understand changes in the number of people and the type of vehicle using the P&R into Bath.	Collected as part of ongoing monitoring activities by operators. ANPR at entrance to Park and Rides	Baseline (pre-scheme) then biannually.
M7: Walking and cycling counts	Pedestrian and cycle counts on key	To understand changes in the number of	Commissioning of new surveys	Baseline (pre-scheme) then annually.

Measure	Data to be Used	Rationale for Inclusion	Data Collection Methods	Frequency of Data Collection
	arterial routes	people walking and cycling on key routes within Bath.		
M8: Bus usage and fare data	Occupancy statistics (Cloud Amber) and bus ticket data (First).	To understand changes in the number of people using the bus on each route into Bath.	Collected as part of ongoing monitoring activities by operators.	Baseline (pre-scheme) then annually.
M9: Stakeholder Feedback from Council User Group Forums	Stakeholder Feedback covering relevant elected members, stakeholder groups, the LEP. Voice Box survey. Protected groups survey.	Understand the views of stakeholders to scheme delivery and impacts, and to understand some of the less quantified effects, including package effects.	Part of the on-going consultation process for transport strategies in the City.	1, 3, 5 years after scheme opening.
M10: Taxi fares and unmet demand	Taxi fare data and unmet demand surveys	To understand changes to fares and demand on taxis in order to assess the economic impacts	Collected as part of ongoing monitoring activities by operators.	Baseline (pre-scheme) then annually.
M11: Early Measures Fund - ULEV Parking Permits	Statistics on ULEV scheme uptake	To understand the popularity	Collected as part of the parking permit scheme operation	Baseline (pre-scheme) then biannually.
M12: Bus retrofit uptake/compliance data	Statistics on bus retrofit scheme uptake and	To understand changes to bus fleet operating in	Collected by ANPR cameras, as part of ongoing	Baseline (pre-scheme) then biannually.

Measure	Data to be Used	Rationale for Inclusion	Data Collection Methods	Frequency of Data Collection
	bus compliance	Bath.	monitoring activities by operators and from the retrofit scheme	
M13: Financial support scheme uptake	Statistics on financial support scheme uptake	To understand the success and popularity of the financial support schemes in changing to compliant vehicles	Collected as part of the financial support scheme operation	Biannually after scheme roll-out.
M14: Travel advisor session uptake	Statistics on meetings with travel advisors	To understand the overall success of travel advisors and	Collected as part of the travel advisor scheme operation	Biannually after scheme roll-out.
M15: Anti-idling enforcement	Data from enforcement action for anti-idling	To understand the success of the measure in reducing idling	Collected as part of the anti-idling enforcement scheme operation	Biannually after scheme roll-out.
M16: Weight restriction enforcement	Data from enforcement action for anti-idling	To understand the success of the measure in enforcing weight restrictions	Collected as part of the weight restriction enforcement scheme operation (from Trading Standards)	Biannually after scheme roll-out.
M17: Delivery and servicing plans uptake	Statistics on delivery and servicing plans uptake	To understand the success of the delivery and servicing plans measure with businesses	Collected as part of the delivery and servicing plans operation	Biannually after scheme roll-out.

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Appendix 2: Investigating concerns of traffic displacement

The purpose of Bath's Clean Air Zone is to reduce air pollution and improve vehicle compliance in line with minimum emission standards, while minimising the impact of the CAZ on normal traffic flows in and around Bath.

Traffic flows have been substantially impacted by the Covid-19 lockdowns in 2020 and are now returning to pre-pandemic levels and in the case of LGV's and HGV's, exceeding pre-pandemic levels[1]. Data gathered from permanent automatic traffic counts in and around the zone tell us that in the third quarter of the year (July to September 2021), general traffic flows across a 7-day week were down by 2.3% in the urban area outside of the CAZ, and 0.9% in the wider B&NES area, compared with the same quarter in 2017/2018 (our baseline years).

A key commitment for the council is to monitor any concerns arising from the introduction of the CAZ, so we are investigating 18 discrete locations where the public have so far expressed concern over a perceived increase in traffic in their communities since the launch of the clean air zone. In addition, we have provided extra permanent ANPR cameras to monitor traffic flows and fleet composition through Bathampton where the community expressed concerns about displacement during the development of the Full Business Case.

The areas of concern, and what we're doing to log, investigate and monitor these are listed in the figure and table below. The work is ongoing and will be updated in subsequent reports. In parallel to these investigations, data is being retrieved and analysed from ANPR cameras located in Bathampton. This information is presented within the 2021 Q3 Monitoring Report.

In terms of air quality, we report the nearest diffusion tube data for the area in question, to understand the local air quality situation. The legal limit for annual average NO_2 pollution is 40 µg/m^3. We are generally concerned with any site where NO_2 concentrations are currently over 36 µg/m^3, to ensure that they don't breach the 40 µg/m^3 limit as an annual mean. All 2021 air quality data is provisional until the release of the annual CAZ report for 2021 in 2022.

[1] Office for National Statistics. Economic activity and social change in the UK, real-time indicators, 2021. https://www.ons.gov.uk/economy/economicoutputandproductivity/output/bulletins/economicactivityandsocialchangeintheukrealtimeindicators/23september2021

Throughout this report we mention the traffic volumes during AM-peak, PM-peak, and inter-peak times. The AM peak refers to the time when the highest volume of traffic occurs during the morning. The PM-peak refers to the time when the highest volume of traffic occurs during the evening, the inter-peak period is between these two times.

Additionally, traffic volumes are often averaged using both a 5-day and 7-day average. A 5-day average has been calculated using the volumes recorded Monday-Friday (weekday). A 7-day average has been calculated using all seven days of the week.

*Traffic flow data is published in the CAZ Quarterly Monitoring Report, July to September 2021 accompanying this appendix. Due to unprecedented changes in travel behaviour during the Covid-19 lockdowns, we are discounting data from 2020 for comparison purposes, except where stated. In 2019 there was insufficient data collected for comparison purposes, 2017 has also been used where data ia unavailable for 2018.

How we're investigating possible traffic displacement

Since the launch of the CAZ in March 2021, we have logged and investigated all comments from residents about potential CAZ-related impacts. Figure 1 shows the process for following up and investigating these queries.

Figure 1: Process for following up and investigating traffic displacement concerns

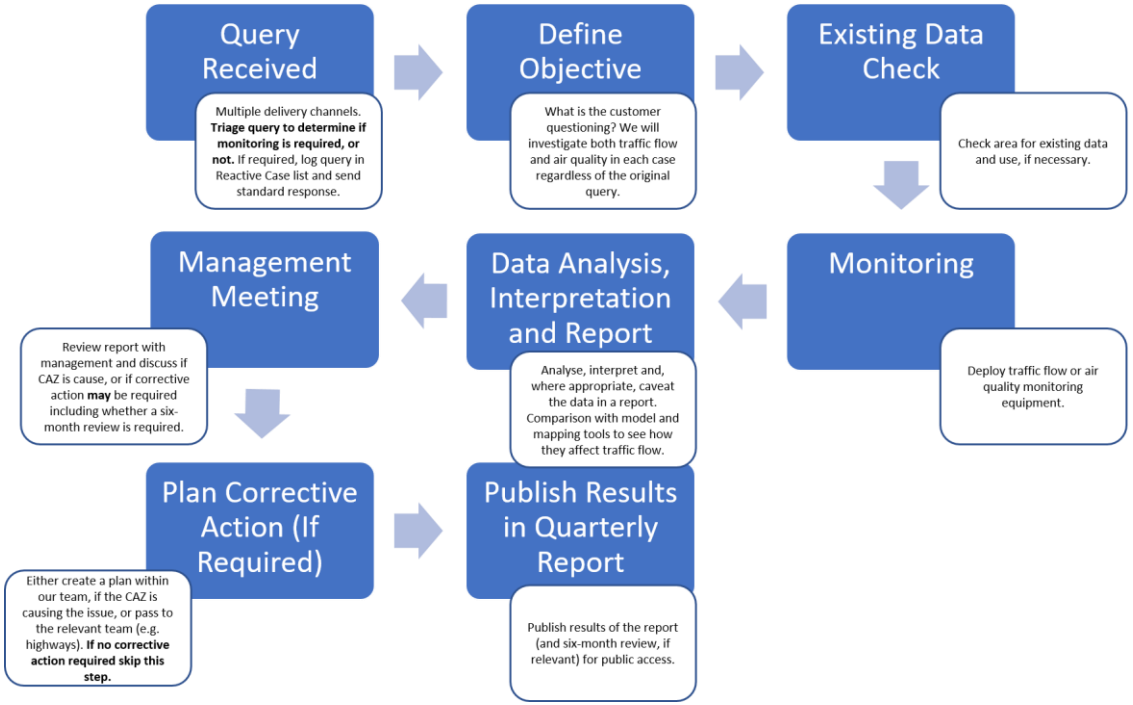

Table 1: Actions taken to investigate areas of concern, with available results and next steps.

Area for investigation	Status	Initial monitoring undertaken	Traffic monitoring results	Air quality monitoring results	Secondary monitoring (if required)	Further review
Colliers Lane	Monitoring complete.	One temporary automatic traffic counter during a 7-day period in April 2021. Singular diffusion tube air quality monitoring.	During April 2021, data collected shows a 20% increase in traffic volumes compared to January 2021. However, general traffic levels in January 2021 were 40% lower than pre-pandemic levels.	The nearest available monitoring site from Colliers Lane is at Granville Road. The NO_2 concentration at this location in 2021 Q3 was 5 µg/m^3 compared to 8 µg/m^3 in 2019 Q3.	No further monitoring required at this stage, due to no discernible increase in traffic volumes. This will be reviewed in 6 months.	Upon reviewing Colliers Lane there have been no further concerns regarding traffic volumes and air quality. This case will be removed from the appendix in the following quarter.
Charlcombe Lane	Further monitoring in progress.	Three temporary radar automatic traffic counters for a 7-day period in July 2021. Singular diffusion tube	The 5-day average shows that the morning and afternoon peak flows are significantly lower in 2021 than compared with 2019. Interpeak traffic flows are slightly higher than in 2019, however this is	The post-CAZ NO_2 concentration at Charlcombe Lane measured at 9 µg/m^3 in 2021 Q3 compared to 12 µg/m^3 in 2019 Q3.	At the request of the Parish Council the results of monitoring completed in November 2021 will be analysed and compared with monitoring	Depending upon the outcome of the November 2021 analysis, this maybe reviewed again in 6 months.

		air quality monitoring.	replicated on other roads since the pandemic, with lower morning peak flows and higher interpeak flows.		completed in November 2019.	
Upper Camden Place	Initial monitoring complete.	One temporary radar automatic traffic counter deployed in July 2021 for a period of 7-days. Singular diffusion tube air quality monitoring.	The volume of traffic on Camden Road is down 25% in July 2021 compared to June 2021. On average 2021 daily total volumes on Camden Road are 12% lower compared to 2017. However, traffic in general was still 8% down on pre-pandemic levels in B&NES when monitoring was carried out.	The post-CAZ NO_2 concentration at Upper Camden Place measured at 20 µg/m^3 in 2021 Q3 compared to 22 µg/m^3 in 2019 Q3.	No further monitoring required at this stage, due to no discernible increase in traffic volumes. This will be reviewed in 6 months.	Review to be carried out in early 2022.
Southdown Road	Initial monitoring complete.	One temporary radar automatic traffic counter	Comparing 2021 data to 2019 the traffic levels on Southdown Road have dropped 13.4%	The nearest available monitoring site from Southdown	No further monitoring required at this stage, due to no discernible	Review to be carried out in early 2022.

		deployed in July 2021 for a period of 7-days. Singular diffusion tube air quality monitoring.	(5-day average) and 11.4% (7-day average). The AM peak has significantly reduced whilst the PM peak has reduced slightly.	Road was Coronation Avenue. The NO_2 concentration at this location in 2021 Q3 was 15 µg/m^3 compared to 16 µg/m^3 in 2019 Q3.	increase in traffic volumes. This will be reviewed in 6 months.	
Old Newbridge Hill	Initial monitoring complete.	Neo Traffic Data using one automatic tube counter plus one Miovision camera for turning count analysis for a 7-day period during July 2021. Singular diffusion tube air quality monitoring.	Overall traffic volume is lower in 2021 compared to 2019; further analysis is required to understand whether the proportion of HGVs, out of the total traffic using the road, has changed.	The post-CAZ NO_2 concentration at Old Newbridge Hill measured at 30 µg/m^3 in 2021 Q3 compared to 27 µg/m^3 in 2019 Q3.	New weight limit restriction being explored for this location together with further monitoring, if necessary. This will be reviewed in 6 months.	Review to be carried out in early 2022, together with work to explore the introduction of a new Traffic Regulation Order.

Twerton High Street	Initial monitoring in progress.	Singular diffusion tube installed in August 2021 for a period of at least 3-months.	N/A	As this diffusion tube was installed midway through 2021 Q3 the results for the quarter have not been averaged. In September 2021 the NO_2 concentration at Twerton High Street measured at 27 µg/m^3.	Monitoring will be continued at this site until we can fully understand the trends in this location.	Review to be carried out in early 2022.
Oldfield Park area (Brook Road, West Avenue, Lyndhurst Road, Ringwood Road, Millmead Road)	Further monitoring complete.	Five pneumatic traffic counters were deployed at the following locations during a 7-day period in July 2021: Millmead Road, West Avenue, South Avenue, Brook	Monitoring along Moorland Road during July 2021 showed a potential increase in average weekday larger vehicle (HGVs and buses/coaches) volume when compared to 2019.	The nearest available monitoring site from Brook Road is at Moorland Road. The NO_2 concentration at this location in 2021 Q3 was 16 µg/m^3 compared to 17 µg/m^3 in 2019 Q3.	Further monitoring with temporary ANPR cameras was carried out to understand the compliance split between vehicle types (i.e., are these non-compliant larger vehicles seeking to avoid CAZ charges).	Our previous monitoring at this location identified an issue with increased HGV numbers. However, on further investigation using temporary ANPR cameras in July 2021, we identified that the number of HGVs using the area

		Road and Triangle North. Singular diffusion tube air quality monitoring.			Further observations were carried out in the vicinity of the area to observe the potential sources and routing of vehicles.	was low (less than 10 per day) with high levels of compliance (>85%). LGV numbers were found to be relatively high, with the compliance of these vehicles being lower than that within the CAZ. This location will be reviewed again after the full reopening of Cleveland Bridge to establish whether the non-compliant vehicles are seeking to avoid zone charges. Engagement is taking place with delivery companies

						observed using HGV's along this route. So far, this has supported the view that it is not being used to avoid the CAZ.
Whiteway Road	Further monitoring complete.	One permanent ATC and two temporary volume and speed counters for a 7-day period in June 2021. Singular diffusion tube air quality monitoring at two locations along Whiteway Road.	Monitoring after the CAZ launch showed a 4.7% increase in rigid HGVs and an 8.3% increase in articulated trucks compared to September 2020. However overall traffic volumes in September 2020 were lower than since the launch of the CAZ. However, a percentage of overall traffic volume, HGVs accounted for 4.5% of all traffic in both September 2020 and for the period since the launch of the CAZ.	Diffusion tubes along Whiteway Road were not deployed until August 2019. However, in 2021 Q3 NO_2 concentrations at Whiteway measured at 19 µg/m^{3*} compared to 17 µg/m^{3*} in 2019 Q3. Whiteway 2 measured at 22 µg/m^3 compared to 24 µg/m^{3*} in 2019 Q3.	Whilst the modelling at FBC stage predicted a slight increase in traffic volumes in this location, monitoring was undertaken with a temporary ANPR camera to understand the percentage of non-compliant HGVs and trucks using this route, to establish whether these vehicles are seeking to avoid zone charges.	During September 2021 ANPR camera data showed a 6% increase in rigid HGVs and a 3% increase in articulated trucks when compared to September 2020. However, national traffic volumes have returned to pre-pandemic levels and in the case of LGVs and HGVs, pre-pandemic levels are being exceeded (Department of Transport).

				**Quarterly average derived from two monthly results due to an invalid result.*		The compliance of these vehicles remains lower than that within the CAZ. This location will be reviewed after the full reopening of Cleveland Bridge to establish whether these vehicles are seeking to avoid zone charges.
Shophouse Road	Initial monitoring complete.	Neo Traffic Data using one tube counter (speed and classification) for a 7-day period in July 2021. Singular diffusion tube air quality monitoring.	Overall vehicle numbers are higher than in 2019. HGV numbers are also higher when compared with the 2019 baseline however, in 2019 HGVs accounted for 8% of all vehicles on Shophouse Road and in 2021 they accounted for 7%.	The nearest available monitoring site from Shophouse Road was The Hollow. The NO_2 concentration at this location in 2021 Q3 was 21 µg/m^3 compared to 19 µg/m^3 in 2019 Q3.	Whilst modelling predicted a slight increase in traffic volumes in this location, monitoring will be reviewed after the full reopening of Cleveland Bridge, This will be reviewed in 6 months.	Review to be carried out in early 2022.

Lansdown Lane	Further monitoring complete.	Two weeks of camera monitoring post-CAZ launch with comparison made to pre-existing data collected in 2018-2019. A manual traffic count occurred in May 2020. Singular diffusion tube air quality monitoring.	During March 2021, data collected shows reduced traffic levels between 12% to 16% over a 7-day period. However, this was in March 2021 when traffic levels were generally around 30% lower than pre-pandemic levels. Post-CAZ HGV numbers were found to be low whereas LGV numbers were higher in March 2021 than in 2018-2019.	The post-CAZ NO_2 concentration at Lansdown Lane was 20 $\mu g/m^3$ in 2021 Q3 compared to 17 $\mu g/m^3$ in June 2019.	Temporary Automatic Number Plate Recognition (ANPR) cameras were installed to monitor the compliance split of vehicle types to further investigate the reason for the increase in LGV numbers and whether these are non-compliant LGVs seeking to avoid CAZ charges.	During August 2021, ANPR camera data collected showed an increase in traffic volumes of 6-10% across a 7-day average when compared to 2018/19. Post-CAZ LGV numbers have increased compared to the 2018/19 baseline with there being less compliance than those vehicles travelling within the CAZ. This location will be reviewed after the full reopening of Cleveland Bridge to establish whether these vehicles are seeking to

						avoid zone charges.
Rosemount Lane	Initial monitoring complete.	One temporary radar automatic traffic counter deployed for a 7-day period in July 2021. Singular diffusion tube air quality monitoring.	During July 2021, data collected shows a reduction in traffic volumes of 56% over a 7-day period when compared to a 2016 baseline. Data shows that most vehicles use the route east (downhill) but very few travel up the steep hill.	The nearest available monitoring site is at Greenway Lane. The NO_2 concentration at this location in 2021 Q3 was 10 µg/m^3 compared to 14 µg/m^3 in 2019 Q3.	No further monitoring required at this stage, due to no discernible increase in traffic volumes. This will be reviewed in 6 months.	Review to be carried out in early 2022.
Sham Castle Lane	Initial monitoring complete.	One temporary radar automatic traffic counter deployed for a 7-day period in July 2021. Singular diffusion tube air quality monitoring.	There is no pre-CAZ baseline for Sham Castle Lane, however, by analysing the traffic volumes during peak times an indication of overall volumes can be understood. The peak of traffic appeared between 1600-1700hr where	The nearest available monitoring site from Sham Castle Lane was North Road. The NO_2 concentration at this location in 2021 Q3 was 12	No further monitoring required at this stage, due to no discernible increase in traffic volumes. This will be reviewed in 6 months.	Review to be carried out in early 2022.

			21 vehicles were recorded within the hour. The next highest volume was 14 vehicles within an hour.	µg/m^{3*} compared to 16 µg/m^3 in 2019 Q3.		
Prior Park Road	Initial monitoring complete.	Neo Traffic Data using one automatic tube counter for a 7-day period in July 2021. Singular diffusion tube air quality monitoring.	Monitoring along Prior Park Road during June/July 2021 showed an increase of 14% in weekday traffic volumes when compared to 2017.	The post-CAZ NO_2 concentration at Prior Park Road measured at 25 µg/m^3 in 2021 Q3 compared to 29 µg/m^3 in 2019 Q3.	A 6-month review will be carried out after the full reopening of Cleveland Bridge.	Review to be carried out in early 2022.
Bradford Road/ Brassknocker Hill	Initial monitoring complete.	One permanent automatic traffic counter located on both Bradford Road and Brassknocker Hill. Singular diffusion tube	Data from the permanent ATC at Bradford Road between the months April-September 2021 has shown a 4% increase westbound and a 1% increase eastbound in HGVs when compared to a September 2020	The post-CAZ NO_2 concentration at Bradford road measured at 23 µg/m^3 in 2021 Q3 compared to 21 µg/m^3 in 2019 Q3.	A 6-month review will be carried out after the full reopening of Cleveland Bridge, as well as investigating those vehicles which are breaking the 7.5t weight restriction	Review to be carried out in mid-2022.

		air quality monitoring at both locations.	baseline (7-day average). HGVs were back to pre-pandemic levels at this baseline period (Department of Transport). Data from the permanent ATC at Brassknocker Hill between the months April-September 2021 has shown a potential increase of 19% northbound and 6% southbound in HGVs when compared to a September 2020 baseline (7-day average).	The post-CAZ NO_2 concentration at Brassknocker Hill measured at 34 µg/m^3 compared to 39 µg/m^3 in 2019 Q3.	on Brassknocker Hill.	
Penn Hill Road	Initial monitoring complete.	One temporary radar automatic traffic counter deployed in August 2021 for a 7-day period.	Monitoring in August 2021 showed a weekday average of 6938 vehicles per day, and a 7-day average of 6399 vehicles per day. Whilst there is no pre-CAZ baseline at	The nearest available monitoring site from Penn Hill Road was Weston High Street. The NO_2 concentration at this location	This will be reviewed in 6 months.	Review to be carried out in early 2022.

		Singular diffusion tube air quality monitoring.	this location, comparing this data to surrounding areas suggests these volumes are as expected. However, this site will be reviewed in 6-months' time.	in 2021 Q3 was 19 µg/m^3 compared to 18 µg/m^3 in 2019 Q3.		
Englishcombe Lane	Initial monitoring complete.	Two temporary radar automatic traffic counters deployed in September 2021 for a period of 7-days. Singular diffusion tube air quality monitoring.	Monitoring along Englishcombe Lane during September 2021 showed a potential increase in average weekday traffic volumes when compared to a January 2021 baseline. However, this baseline will have seen significantly lower traffic volumes due to the national lockdown.	The post-CAZ NO_2 concentration at Englishcombe Lane measured at 10 µg/m^3 in 2021 Q3 compared to 11 µg/m^3 in 2019 Q3.	This location will be reviewed again after 6 months and the full reopening of Cleveland Bridge to establish whether the non-compliant vehicles are seeking to avoid zone charges.	Review to be carried out in mid-2022.
Norton St Philip	Initial monitoring complete.	One permanent automatic	Monitoring at Norton St Phillip has shown a decrease of 16% in	The nearest available monitoring site	No further monitoring required at this	Review to be carried out in mid-2022.

		traffic counter located on the B3110 north west of Midford. Singular diffusion tube air quality monitoring.	weekday car and light good vehicle volumes when compared to 2017. Heavy vans and minibuses have decreased by 4%, with HGVs and articulated lorries also decreasing by 10% when compared to a 2017 baseline.	from the permanent automatic traffic counter on the B3110 was Bradford Road. The NO_2 concentration at this location in 2021 Q3 was 23 µg/m^3 compared to 21 µg/m^3 in 2019 Q3.	stage, due to no discernible increase in traffic (including car traffic) volumes. This will be reviewed in 6 months.	
Cavendish Road	Initial monitoring complete.	One temporary radar automatic traffic counter deployed for a 7-day period in October 2021. Triplicate diffusion tube air quality monitoring.	Monitoring of traffic volumes along Cavendish Road during October 2021 showed a potential increase of 17% in weekday traffic volumes when compared to 2017.	The NO_2 concentration at Cavendish Road was 14 µg/m^3 in both 2019 and 2021 Q3.	A 6-month review will be carried out after the full reopening of Cleveland Bridge to establish whether the non-compliant vehicles are seeking to avoid zone charges.	Review to be carried out in early 2022.

Appendix 3: Full quarterly diffusion tube NO_2 data

The following tables outline the provisional average quarterly nitrogen dioxide (NO_2) concentrations in micrograms per cubic metre ($\mu g/m^3$) for sites within the Bath Clean Air Zone (CAZ_Only), the boundary area surrounding (including the urban areas of Batheaston and Bathampton; CAZ_Boundary) and those sites within the wider B&NES district (Wider_B&NES). All 2021 air quality data is provisional until the release of the annual CAZ report in 2022.

Table 1- showing sites within the CAZ_Only (sites within the CAZ boundary) site grouping which were recording data in 2021 Q3. Some sites which were recording in 2021 Q3 do not have a 2019 Q3 baseline as they were installed at a later period. Additionally, some sites within 2019 Q3 have missing data as they were installed in August 2019 to provide increased analysis of air quality levels in Bath in support of the CAZ. Sites with missing data are highlighted in orange. Sites which are not orange in both 2019 and 2021 Q3 have been used for analysis as they have full data sets in both quarters. (35 sites in total). TA = triplicate average (where three diffusion tubes are located at one site and an average of all three taken)

Site no. and name	2019 Q3 NO_2 concentration ($\mu g/m^3$)	2021 Q3 NO_2 concentration ($\mu g/m^3$)	Change ($\mu g/m^3$)
DT003 - Broad St	34.2	35.1	0.9
DT004 - George St	26.1	28.9	2.8
DT005 - Gay St - Top	24.6	25.2	0.6
DT009 - Upper Bristol Rd	24.3	25.8	1.5
DT014 - Bathwick St	33.4	13.4	-20.0
DT015 - Beckford Rd	26.1	19.3	-6.7
DT016 - Warminster Rd	31.4	23.0	-8.4
DT017 - Widcombe School (TA)	26.4	20.3	-6.1
DT018 - Widcombe High St	21.4	16.8	-4.5
DT020 - Wells Rd (TA)	46.9	48.2	1.3
DT021 - Wells Rd /Upper Oldfield Park	36.4	28.5	-7.9
DT037 - Charlotte St (TA)	26.4	25.8	-0.7

Site no. and name	2019 Q3 NO_2 concentration (µg/m^3)	2021 Q3 NO_2 concentration (µg/m^3)	Change (µg/m^3)
DT039 - Manvers St	29.8	25.1	-4.7
DT042 - Dorchester St	47.0	47.0	0.0
DT043 - St. James Parade	39.9	39.1	-0.8
DT045 - James St West	25.6	24.5	-1.2
DT060 - Victoria Buildings	41.0	44.2	3.2
DT087 - Oak Street	27.5	23.1	-4.4
DT090 - Anglo Terrace (TA)	47.2	28.6	-18.7
DT145 - Lansdown Road	24.2	20.6	-3.6
DT147 - Terrace Walk	28.0	20.3	-7.7
DT148 - Julian Rd (TA)	24.3	21.8	-2.5
DT149 - Camden 3	21.5	19.6	-1.9
DT153 - North Road	15.6	11.5	-4.1
DT156 - Corn Street	24.6	21.6	-3.0
DT157 - Charles Street	23.4	27.7	4.3
DT158 - Paragon 2	25.5	28.2	2.7
DT159 - Walcot Street	22.2	18.9	-3.3
DT160 - North Parade Road	32.2	24.5	-7.6
DT172 - London Road 2 (TA)	42.8	28.7	-14.1
DT173 - Upper Bristol Road 2	32.8	28.2	-4.6
DT180 - Wells Road 2 (TA)	36.9	33.6	-3.2
DT182 - Gay Street - Lower (TA)	43.2	41.6	-1.5
DT183 - Chapel Row	26.7	32.0	5.3
DT198 - Walcot Parade (TA)	46.6	35.7	-11.0
DT207 - Darlington Street	40.9	26.5	-14.4
DT211 - St John's Road	17.8	12.4	-5.4

Site no. and name	2019 Q3 NO_2 concentration (µg/m^3)	2021 Q3 NO_2 concentration (µg/m^3)	Change (µg/m^3)
DT212 - Oldfield Road	15.0	13.3	-1.7
DT213 - Marlborough Lane (TA)	19.0	21.3	2.3
DT214 - Marlborough Buildings (TA)	16.3	15.9	-0.5
DT215 - Queen Parade Place (TA)	15.3	15.5	0.2
DT216 - Monmouth Place (TA)	24.4	24.9	0.6
DT217 - Cavendish Road (TA)	14.3	14.0	-0.3
DT219 - Morford Street	17.9	18.2	0.3
DT221 - Gay Street - façade	35.0	34.0	-1.0
DT222 - Anglo Terrace façade (TA)	51.9	33.5	-18.4
DT223 - Canton Place (TA)	39.1	19.3	-19.8
DT224 - Walcot Parade 2 (TA)	55.9	45.5	-10.5
DT225 - Cleveland Terrace (TA)	38.2	33.7	-4.5
DT227 - Wells Road 3 (TA)	40.8	36.7	-4.1
DT232 - Lansdown Road 3 (TA)	30.1	23.6	-6.5
DT233 - Lansdown Road 4 (TA)	25.9	25.3	-0.7
DT234 - Gay Street 2 (TA)	43.4	42.7	-0.7
DT235 - Wells Road 4 (TA)	39.6	36.3	-3.3
DT236 - Pulteney Terrace (TA)	26.8	19.8	-7.0
DT237 - Broad Street 2	32.6	39.9	7.3
DT238 - Broad Street 3 (TA)	35.2	35.8	0.6
DT239 - Broad Street 4 (TA)	36.2	43.1	6.9
DT240 - Bathwick Street 2 TA)	31.0	11.7	-19.2
DT241 - Bathwick Street 3 (TA)	22.2	10.8	-11.4
DT242 - Charlotte Street 2 (TA)	22.2	19.5	-2.7
DT243 - Sydney Place (TA)	31.6	18.1	-13.5

Site no. and name	2019 Q3 NO_2 concentration ($\mu g/m^3$)	2021 Q3 NO_2 concentration ($\mu g/m^3$)	Change ($\mu g/m^3$)
DT246 - Dorchester Street 2 (TA)	41.6	35.2	-6.4
DT247 - Monmouth Place 2 (TA)	29.4	29.0	-0.4
DT248 - Chapel Row 2 (TA)	39.9	48.9	9.0
DT278- CAZ Background 1 (Royal Crescent)	N/A- site new in Sep 21	11.2	
DT279- CAZ Background 2 (Henrietta Park)	N/A- site new in Sep 21	10.6	

Table 2- showing sites within the CAZ_Boundary (sites outside the CAZ boundary but within the urban area of Bath including Batheaston and Bathampton) site grouping which were recording data in 2021 Q3. Some sites which were recording in 2021 Q3 do not have a 2019 Q3 baseline as they were installed at a later period. Additionally, some sites within 2019 Q3 have missing data as they were installed in August 2019 to provide increased analysis of air quality levels in Bath in support of the CAZ. Sites with missing data are highlighted in orange. Sites which are not orange in both 2019 and 2021 Q3 have been used for analysis as they have full data sets in both quarters (41 sites in total) TA = triplicate average (where three diffusion tubes are located at one site and an average of all three taken)

Site no. and name	2019 Q3 NO_2 concentration ($\mu g/m^3$)	2021 Q3 NO_2 concentration ($\mu g/m^3$)	Change ($\mu g/m^3$)
DT008 - Windsor Bridge	27.2	21.8	-5.4
DT026 - Upper Wellsway	24.7	25.1	0.4
DT034 - Newbridge Rd	29.6	21.2	-8.5
DT052 - Walcott Terrace (TA)	37.1	23.5	-13.5
DT055 - Lambridge	38.4	31.5	-6.8
DT058 - Batheaston - London Rd West A	21.7	18.8	-2.9
DT062 - Argyle Terrace	34.7	37.1	2.3
DT084 - Bearflat	29.2	24.5	-4.8
DT085 - RUH North	24.5	23.5	-1.0
DT091 - Bathampton High Street	21.6	21.4	-0.2
DT094 - Batheaston - London Rd West B	24.2	24.8	0.6
DT130 - Batheaston - London Road West C	22.3	20.7	-1.6
DT142 - Prior Park Road	28.8	24.8	-4.0
DT143 - Rackfield Place	22.0	23.1	1.1
DT150 - Brougham Hayes	24.7	22.9	-1.8
DT151 - Widcombe Hill	21.3	20.9	-0.4
DT152 - Bathwick Hill	24.5	20.8	-3.7

Site no. and name	2019 Q3 NO_2 concentration ($\mu g/m^3$)	2021 Q3 NO_2 concentration ($\mu g/m^3$)	Change ($\mu g/m^3$)
DT154 - Bradford Road	21.1	23.4	2.4
DT155 - Newbridge Hill 2	14.4	11.6	-2.8
DT163 - A4 Box Road, Batheaston	21.4	12.3	-9.1
DT165 - Brassknocker Hill	38.5	33.8	-4.7
DT166 - A36 Bathampton	25.4	21.0	-4.4
DT167 - Weston High St	17.6	19.2	1.6
DT168 - Englishcombe Lane	10.8	10.0	-0.8
DT169 - Eastbourne Ave	19.5	16.7	-2.7
DT171 - Frome Road/Upper Bloomfield	23.8	26.5	2.7
DT179 - Upper Bristol Road 3 (TA)	31.3	31.7	0.4
DT181 - Wellsway	34.2	26.1	-8.0
DT185 - Greenway Lane	13.8	9.8	-4.0
DT186 - Coronation Ave	15.8	15.2	-0.5
DT187 - Stanley Road West	18.4	16.8	-1.6
DT188 - Moorland Road	16.6	15.5	-1.1
DT189 - Old Newbridge Hill	26.5	29.8	3.3
DT190 - Church Street	9.2	8.1	-1.1
DT191 - Batheaston - Mill Lane	20.2	20.2	0.0
DT192 - Fairfield Road	12.1	10.4	-1.6
DT193 - Granville Road	7.6	5.3	-2.2
DT194 - Brooklyn Road	14.1	11.8	-2.3
DT195 - Lansdown Lane	16.9	19.6	2.6
DT196 - Oakley	26.7	17.4	-9.3
DT197 - Rush Hill	22.3	21.2	-1.1
DT199 - Hensley Road	9.8	8.3	-1.6

Site no. and name	2019 Q3 NO_2 concentration ($\mu g/m^3$)	2021 Q3 NO_2 concentration ($\mu g/m^3$)	Change ($\mu g/m^3$)
DT200 - Millmead Road	11.4	11.3	-0.1
DT201 - The Hollow	19.4	20.9	1.5
DT202 - Charlcombe	12.0	9.4	-2.6
DT206 - Park Lane (TA)	30.1	28.1	-2.0
DT209 - Bellots Road	15.4	14.4	-1.0
DT210 - Red Lion Roundabout	34.1	33.6	-0.5
DT218 - Weston Road	17.3	14.0	-3.4
DT226 - AURN* (TA)	N/A- site new in Oct 2019	25.7	N/A
DT228 - Lower Bristol Road 2 (TA)	27.5	25.0	-2.5
DT229 - Lower Bristol Road 3 (TA)	32.6	31.1	-1.5
DT230 - Upper Bristol Road 4 (TA)	42.7	41.2	-1.5
DT231 - Upper Bristol Road 5 (TA)	43.6	35.9	-7.7
DT244 - Whiteway	16.5	18.8	2.3
DT245 - Whiteway 2	24.1	22.2	-1.9
DT276 - Twerton High Street	N/A- site new in Aug 21	27.2	N/A

*Automatic Urban and Rural Network- These diffusion tubes are located at our Automatic Urban and Rural Network monitoring site located on A4 London Road.

Table 3- showing sites within the Wider_B&NES (sites outside of Bath, Batheaston and Bathampton urban areas, but with the rural areas and district wide urban areas of B&NES) site grouping which were recording data in 2021 Q3. Some sites which were recording in 2021 Q3 do not have a 2019 Q3 baseline as they were installed at a later period. Sites which are not orange in both 2019 and 2021 Q3 have been used for analysis as they have full data sets in both quarters. TA= triplicate average (where three diffusion tubes are located at one site and an average all of three taken)

Site ID	2019 Q3 NO_2 concentration (µg/m3)	2021 Q3 NO_2 concentration (µg/m3)	Change (µg/m^3)
DT032 - Whitchurch	32.2	27.6	-4.6
DT033 - Keynsham (Kelston Road)	8.7	8.2	-0.5
DT063 - Keynsham - Station Rd	22.2	23.1	0.9
DT064 - Keynsham - Charlton Rd B	24.8	25.0	0.2
DT065 - Keynsham - Charlton Rd A	23.6	24.8	1.2
DT066 - Keynsham - High St A	32.0	29.7	-2.4
DT067 - Keynsham - Somerfield	27.2	25.5	-1.7
DT068 - Keynsham - Temple St	16.5	17.0	0.6
DT069 - Keynsham - Rock Road	19.1	21.8	2.7
DT070 - Keynsham - Bath Hill	21.0	19.2	-1.8
DT075 - Saltford - The Crown	27.4	25.1	-2.3
DT077 - Saltford - Bath Rd	25.8	21.8	-3.9
DT096 - Temple Cloud 1 (TA)	57.4	57.8	0.4
DT098 - Whitchurch 2	28.1	27.7	-0.4
DT100 - Whitchurch 4	24.1	23.5	-0.7
DT101 - Whitchurch 5	31.4	32.1	0.8
DT107 - Keynsham - Bath Hill (South)	32.1	33.2	1.1
DT108 - Temple Cloud 2 (TA)	38.6	35.5	-3.1

Site ID	2019 Q3 NO_2 concentration (µg/m3)	2021 Q3 NO_2 concentration (µg/m3)	Change (µg/m^3)
DT109 - Temple Cloud 3 (TA)	34.0	33.2	-0.8
DT112 - Keynsham - Ashton Way	19.3	21.1	1.7
DT113 - Keynsham - West View Rd	11.4	11.6	0.2
DT114 - Keynsham - Victoria Church	20.3	21.7	1.4
DT115 - Keynsham - High Street B	16.0	11.9	-4.1
DT116 - Keynsham - Fish Bar	18.6	16.3	-2.3
DT134 - Farrington Gurney 2	42.8	37.9	-4.9
DT136 - Farrington Gurney 3	39.3	37.9	-1.4
DT138 - Farrington Gurney 5	36.6	34.9	-1.8
DT141 - Keynsham A4	28.2	28.7	0.5
DT174 - Pensford 3	37.2	38.4	1.3
DT252 - Temple Cloud 9 (TA)	N/A- site new in Mar 20	42.2	N/A
DT253 - Temple Cloud 10 (TA)	N/A- site new in Mar 20	46.6	N/A
DT254 - Temple Cloud 11 (TA)	N/A- site new in Mar 20	40.2	N/A
DT255 - Temple Cloud 12 (TA)	N/A- site new in Mar 20	44.2	N/A
DT257 - Farrington Gurney - Sunnyside	N/A- site new in May 20	20.9	N/A
DT258 - Radstock - Frome Road	N/A- site new in Jan 21	23.8	N/A
DT266 - Keynsham - Avon Mill Lane	N/A- site new in Feb 21	20.9	N/A
DT268 - Westfield 4	N/A- site new in May 21	23.4	N/A
DT269 - Westfield 5	N/A- site new in May 21	12.5	N/A
DT270 - Westfield 6	N/A- site new in May 21	19.8	N/A
DT271 - Westfield 7	N/A- site new in May 21	25.1	N/A

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Bath & North East Somerset Council		
MEETING/ DECISION MAKER:	**Cabinet**	
MEETING/ DECISION DATE:	**15/16 December 2021**	EXECUTIVE FORWARD PLAN REFERENCE: E 3322
TITLE:	**Cleveland Bridge Review**	
WARD:	All	
AN OPEN PUBLIC ITEM		
List of attachments to this report Cleveland Bridge – Update and Options Report (E3303).		

1 THE ISSUE

At the Cabinet Meeting held on 9 September 2021, Officers were requested to:

1. Prepare a draft Traffic Regulation Order seeking to restrict HGV movements over Cleveland Bridge to preserve or improve the amenity of the area through which the road runs, in this case the Grade II* listed Cleveland Bridge structure and environs including the London Road and Bathwick Street, in accordance with the Road Traffic Regulation Act 1984.

2. Investigate and consider any other options that may exist for achieving a similar end to a TRO and report on both actions including the draft TRO to the November meeting of this Cabinet.

3. Consult with appropriate heritage and amenity groups in Bath including Residents' Associations in the course of preparation of the TRO.

This report provides an update on progress with these actions some proposed recommendations.

2 RECOMMENDATIONS

The Cabinet is asked to:

1. Note that in the absence of a solution to restrict HGV movements over the bridge which has been agreed with neighbouring authorities and National Highways and which addresses the concerns of the haulage trade associations and, insofar as changes impact on the CAZ, satisfies the Secretary of State, all unilateral options carry high degrees of risk of a PRN appeal and/or a legal challenge.

2. In light of the resolution made at the 9 September Cabinet Meeting (E3303) to adopt recommendation 2.1 in the corresponding Officer report, recognise the need to maintain good working relationships with the Council's neighbouring authorities and National Highways so as not to undermine the investment being made into a wider, strategic study into north-south connectivity between the M4 and the Dorset Coast with an aim of making the A350 the strategic route and thereby limiting HGV use of Cleveland Bridge as part of the Government's Road Investment Strategy 2 (2020-25).

3. Consider strengthening the Council's transport policies to: protect the amenity of the Bath World Heritage Site setting, continue to improve air quality standards, reduce vehicular demand on road space, and respond to the climate and ecological emergencies already declared by the Council. This could include, if necessary, the introduction of further restrictions and/or increased charges on vehicles entering Bath. In line with the relevant legislation, note that any net revenues generated from any proposed charging scheme would be applied to facilitate the achievement of local transport policies.

4. Consider early engagement with the haulage trade associations, neighbouring authorities, National Highways and the Secretary of State with a view to exploring a variation to the Bath Clean Air Zone Charging Order 2021 so that all Euro VI diesel powered vehicles with weight exceeding 12 tonnes[1] become chargeable under the scheme, for the benefit of air quality and the amenity of the CAZ area (including the Grade II* Cleveland Bridge) and the wider Bath World Heritage Site setting. As part of this and with a view to protecting local SMEs and their supply chains that may have recently invested in Euro VI diesel vehicles, explore the option of also introducing a time-limited exemption to complement the existing exemptions for hybrid, electric and alternatively fuelled vehicles. Subject to undertaking further feasibility work and being able to develop and implement a workable scheme, this would have the net effect of disincentivising all diesel-powered HGVs weighing over 12 tonnes from using the CAZ area as a through route.

5. Noting the high risk of appeal and/or legal challenge, and the resource implications highlighted in the report below, do not proceed with the TRO option at this time.

3 THE REPORT

Legal framework

3.1 As the local traffic authority for the district, the Council has a general network management duty under s.16 of the Traffic Management 2004. This places a duty on the Council:

"*To manage its road network with a view to achieving, so far as may be reasonably practicable having regard to its other obligations, policies and objectives, the following objectives:*

[1] In accordance with the Road User Charging and Workplace Parking Levy (Classes of Motor Vehicles) (England) Regulations 2001.

a) *securing the expeditious movement of traffic on the authority's road network; and*

b) *facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority*".

3.14 Government has also issued guidance[2] which clarifies the scope of the network management duty. Of particular relevance are the following passages:

General scope of the network management duty

a) *"The LTA has to manage the road space for everyone and make decisions about trade-offs between competing demands according to its policies and the particular circumstances of the part of the network being considered."*

Cross-boundary nature of the network management duty

a) *"The duty on an LTA does not stop at its borders. Each is required to facilitate the expeditious flow of traffic on the networks of others. In practice, for an LTA this will mean identifying those authorities that could be affected by their actions and making arrangements for managing this, even though they may not be immediately adjacent authorities. These would include consultation on initiatives, the sharing of information needed to meet the duty, and processes for ensuring that policies are consistent."*

b) *"In order that traffic can move as freely as possible across administrative boundaries and in order to minimise impacts on traffic wherever they occur, it is important that all of those traffic authorities with an interest agree joint working arrangements."*

It is therefore clear that this duty requires local traffic authorities to work together to facilitate the expeditious flow of traffic between administrative boundaries, as well as within their own areas.

3.15 Any decision which did not adequately address the network management duty could be challenged by way of judicial review.

3.16 In addition, as explained in the report of 9 September (paragraphs 3.4, and 3.8-3.9), Cleveland Bridge is part of the Primary Route Network (PRN) and any significant changes to the PRN which have not been agreed with affected neighbouring authorities or National Highways may result in a successful PRN appeal.

3.17 Under the Transport Act 2000 the Council has the option to impose a 'road user charge' (RUC) on vehicles using Cleveland Bridge, provided this does not prejudice the Council's compliance with its duties to achieve NO_2 compliance under its Ministerial Direction. However, under the TA 2000 no road may be subject to charges under more than one road user charging scheme. Therefore, as the current CAZ is such a charging scheme, in order

[2] Traffic Management Act 2004, Network Management Duty Guidance, November 2004.

to impose any additional charge a separate scheme could not be imposed and the current CAZ scheme would need to be amended. An amendment could take a number of forms including:

a) imposing a separate charge for certain HGVs to use Cleveland Bridge; or

b) a CAZ-wide additional or higher charge on certain HGVs, such as the heaviest and/or most polluting.

3.18 This amendment could be done by the Council making a 'variation order', which would be subject to similar processes and consultation to the original CAZ Charging Order.

3.19 Unlike the procedures for imposing a TRO, under the TA 2000 there is no formal objection or appeals process, and any challenge is therefore typically by way of judicial review.

3.20 Any judicial review or PRN appeal is likely to involve significant costs for the Council and require the instruction of specialist legal and technical advice. Added to this is the significant impact on staff resources.

Policy context

3.21 The overarching Joint Local Transport Plan 4 (JLTP4) developed by the West of England Combined Authority in collaboration with this, Bristol, North Somerset, and South Gloucestershire Councils, contains numerous references to restricting HGV movements along with a key policy objective:

"We will seek to restrict through traffic movement for heavy vehicles and most polluting goods vehicles in the central areas of Bristol and Bath." (p80)

3.22 Similarly, the Council's Getting Around Bath: A Transport Strategy for Bath makes several references to reducing the impact of HGV movements in the city along with the key policy objective:

"That freight movements be considered more fully, particularly to promote consolidation of deliveries and reduce the impact of HGVs." (p33)

3.23 And as part of the action plan to deliver this policy objective, the key action:

"Work with the Highways Agency, Wiltshire and other authorities to develop proposals and strategies to remove through traffic and HGVs in particular, from Bath." (p33)

Summary of options considered

3.24 Following the 9 September Cabinet Meeting Officers examined all options for charging and/or restricting HGV movements across Cleveland Bridge to address both amenity concerns and specific air quality concerns, including but not limited to a permanent TRO, tolling, and an extension to the CAZ. This has included an analysis of the risks and an understanding of the roles and responsibilities of the key stakeholders involved.

3.25 In essence, and as explained in detail below, the Council has two main options to restrict HGV movements across Cleveland Bridge:

a) a TRO; or

b) a road user charge.

Imposition of a toll, either using existing local legislation or other tolling powers, does not appear to be feasible.

TRO option

3.26 Cleveland Bridge forms part of the PRN, linking to the A36 (connecting to Southampton) and the A4 (connecting to London). A TRO restricting HGV movements at Cleveland Bridge therefore has the potential to impact on neighbouring authorities including Wiltshire, Somerset, and South Gloucestershire Councils, as well as on the PRN and Strategic Road Network more generally, meaning National Highways may also be impacted. This creates a risk that any changes which are considered to be a 'significant change' to the PRN and which have not been agreed with neighbouring authorities and National Highways could give rise to a PRN appeal to the Department for Transport.

3.27 Any TRO, whether imposed on air quality, safety, or heritage grounds, could constitute a 'significant change' if sufficient traffic is diverted to adversely impact on other parts of the Primary Route Network. If modelling suggested this to be the case, then this could be the subject of a PRN appeal.

3.28 The experimental TRO proposed in 2012 would have banned vehicles exceeding 18 tonnes from using Cleveland Bridge by restricting movements between the A36 and Bathwick Street. This was the subject of a successful PRN appeal by Wiltshire and Somerset Councils and the Highways Agency (now National Highways) on the grounds that the ban would result in unacceptable impacts on the PRN, SRN and other local roads at that time, and that agreement from the other affected authorities was required to impose such a measure.

3.29 Unless some form of agreement can be reached with Wiltshire, Somerset, and South Gloucestershire Councils, National Highways, and the Secretary of State, the risk of a successful PRN appeal is very high, and the TRO option therefore appears unviable at this time.

RUC option

CAZ-wide charge on HGVs

3.30 The CAZ was launched in March 2021. Since the end of April compliance rates amongst Class N3 HGVs have been around 95%, with fewer than 10 non-compliant vehicles being seen in the CAZ on a typical day. Accepting that these low numbers will to some extent be impacted by the temporary closure of Cleveland Bridge, it nevertheless shows that the imposition of a £100/day charge for non-compliant HGVs has been effective in driving up compliance rates from an average 50% compliance level in 2017. The Council is extremely grateful to the owners and operators of these vehicles

for embracing the scheme and making such rapid improvements to the HGV fleet in Bath.

3.31 Given such a positive response to the existing CAZ from HGV owners and operators, there would seem to be an opportunity to go further, faster. With reference to the Automotive Council's HGV Roadmap[3], in the period 2020-25 we should expect:

a) Hybrid and electric powertrains to complement low emission internal combustion engine (ICE) powertrains in lighter HGVs; and

b) Hybrid powertrains to complement low emission internal combustion engine (ICE) powertrains in heavier HGVs.

3.32 ICE powertrains do not necessarily have to be fuelled by petrol or diesel – the awareness and use of alternative fuels such as compressed or liquified natural gas and biomethane continues to grow, particularly among the larger fleet operators.

3.33 To help encourage the adoption of these greener technologies, the CAZ already has exemptions in place for hybrid, electric and alternatively fuelled vehicles, irrespective of size or weight.

3.34 The Council is subject to a Ministerial Direction handed down from central government to ensure compliance with air quality limit values in the shortest possible time and by 2021 at the latest. However, in the latest CAZ performance report, the Council is still predicting a number of exceedances at the end of 2021, including at monitoring sites around Cleveland Place. In addition, tackling the climate and ecological emergency is one of the Council's two core policies.

3.35 Varying the CAZ Charging Order so that all Class N3 Euro VI diesel vehicles (HGVs over 12 tonnes) become chargeable under the scheme may help the owners and operators of these heavier HGVs to:

a) Redistribute existing hybrid and alternatively fuelled vehicles in their fleets into Bath; and

b) Further encourage the uptake of hybrid and alternatively fuelled vehicles, in line with the HGV Roadmap.

3.36 Removing these heavier diesel HGVs from the city should benefit air quality and the amenity of the CAZ area and wider Bath World Heritage Site setting. It would also offer the opportunity to signal to other vehicle owners and operators that the Council is intent on achieving compliance with air quality limit values, reducing vehicular demand on road space, protecting the amenity of the Bath World Heritage Site setting and responding to the climate and ecological emergencies already declared by the Council.

3.37 For the avoidance of doubt, HGVs weighing under 12 tonnes would be unaffected by this approach. The Council also recognises the considerable fleet improvements already made by owners and operators of these heavier

[3] Heavy Goods >3.5t and Off-highway Vehicle Roadmap 2020, Automotive Council, February 2021.

HGVs. In recognition of this and with a view to protecting local SMEs and their supply chains that may have recently invested in Euro VI diesel vehicles, the Council envisages a time-limited exemption for such vehicles, to complement the existing exemptions for hybrid, electric and alternatively fuelled vehicles. This would have the net effect of disincentivising all diesel-powered HGVs weighing over 12 tonnes from using the CAZ area as a through route.

3.38 Whilst a zone-based measure such as this that does not directly impact on any specific PRN road (as opposed to a specific restriction on HGVs using Cleveland Bridge) may not be susceptible to a PRN appeal, there is still a credible risk of opposition or legal challenge.

A charge for HGVs to use Cleveland Bridge

3.39 Officers also considered a separate CAZ charge for HGVs to use Cleveland Bridge. Provided that any additional charge did not adversely impact on the effectiveness of the CAZ in achieving NO_2 compliance, then this option would appear to be in principle viable.

3.40 However, implementing such a scheme would require the installation of additional infrastructure such as signage, ANPR cameras and potentially a local payment mechanism. In addition, the relationship between the CAZ charge and Cleveland Bridge charge could cause confusion.

3.41 For these reasons, and the high risk of opposition and/or legal challenge, and as this would mean imposing a restriction on a specific PRN road, this option is considered unviable at this time.

New RUC outside the CAZ

3.42 In addition, Officers considered the option of imposing an HGV charge on a road falling outside the CAZ, e.g., on the A4 London Road. However, it is considered that this is not viable for similar reasons to above, and because it could result in HGVs simply being diverted on to other local roads in Bath and/or charging vehicles which were entering the city but not wanting to cross Cleveland Bridge.

Tolling

3.43 For completeness, Cabinet is advised that all tolling options have been considered in detail, but none are considered to be workable.

3.44 Historic tolling powers under the Bath Corporation Act 1925 would appear to be spent and in any event, the charges under the Act are too low to be of relevance today.

3.45 The relevant powers of the New Roads and Street Works Act 1991 have been interpreted as applying to new roads only, so are not available here.

3.46 To make an order under the Transport and Works Act 1991 there would generally need to be some specific works envisaged that would impact on navigation in the River Avon. That is not the case here.

4 STATUTORY CONSIDERATIONS

4.1 The relevant law has been set out above. However, it should also be noted that:

a) Whilst the Council currently has powers, via the courts, to enforce against drivers in breach of weight restrictions, the current process is somewhat cumbersome and time consuming. As such, parliament is currently considering providing local authorities outside of London with the powers set out in the Traffic Management Act 2004 to enforce against so-called moving traffic offences. These powers are likely to be available to all local authorities in 2022, but this is still to be confirmed.

b) The CAZ scheme is in place in response to a Ministerial Direction to achieve compliance with, as a minimum, national NO_2 limit values. Once the Secretary of State has confirmed the Council has discharged its duties under the Direction then the CAZ scheme may need to be decommissioned or repurposed in line with local objectives. Therefore, Cabinet should note that the option of an additional CAZ-wide charge on Class N3 Euro VI diesel HGVs may only provide a short-term solution and whilst the Council is still predicting a number of exceedances at the end of 2021, including at monitoring sites around Cleveland Place, these may not be sustained due to natural fleet upgrade rates.

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The current forward programme does not allow for taking forward the CAZ-wide charge on HGVs option and therefore need to be adjusted to accommodate the additional works, which could result in some existing planned works being deferred.

5.2 The one-off spend to date is around £15,000, which will be met from in year underspends across the department. Based on proposals obtained from consultants for the feasibility study work and experience of taking forward similar projects, the Council is likely to incur around £60,000 in initial external costs should Cabinet decide to instruct Officers to proceed with a feasibility study following early engagement with key stakeholders.

5.3 An allowance will also need to be made for the Officer time involved in managing the work and consulting with key stakeholders, including heritage and amenity groups and residents' associations.

5.4 The Council's Medium Term Financial Outlook currently forecasts a further revenue savings requirement of £13.1m for 2022/23 in order to set a balanced budget. Any costs associated with taking forward the CAZ-wide charge on HGVs option would need to be developed on a cost neutral basis with additional revenue or capital costs being funded from within the approved budget for the Transport portfolio. Any unbudgeted costs will need to be considered as part of the budget process for 2022/23 and future years.

6 RISK MANAGEMENT

6.1 A risk assessment related to the issue and recommendations above has been undertaken, in compliance with the Council's decision-making risk management guidance.

7 EQUALITIES

7.1 The public sector equality duty has been considered. Given that the key recommendation is to consider early engagement with key stakeholders on the CAZ-wide charge on HGVs option, it is not considered that this gives rise to any specific adverse impacts at this early stage. A detailed Equalities Impact Assessment has therefore not been undertaken at this time but will be developed at the feasibility study stage (if Cabinet decides to pursue this option).

8 CLIMATE CHANGE

8.1 Varying the CAZ Charging Order to encourage owners and operators to replace diesel powertrains with hybrid or alternatively fuelled powertrains, should help reduce vehicle-related CO_2 emissions and NO_2 and PM pollution and reduce vehicular demand on road space in line with the Council's local transport policies.

9 OTHER OPTIONS CONSIDERED

9.1 The other option is for Cabinet to resolve to continue to work with the Council's neighbouring authorities and National Highways to find a mutually agreed solution and not to investigate the other measures recommended above. This would include continuing to work with Wiltshire and Dorset Councils and the Sub-Regional Transport Board (STB) Western Gateway to complete a strategic study into north/south connectivity between the M4 and the Dorset Coast with an aim of making the A350 the strategic route and limiting HGV use of Cleveland Bridge as part of the Governments Road Investment Strategy 2 (2020-25). This option was recommended in the Officer report to Cabinet on 9 September and adopted in the corresponding resolution (E3303). It remains the least risky and least resource intensive option. However, Officers acknowledge that it is unlikely to yield a solution in the short term and this is something which Cabinet will need to consider.

10 CONSULTATION

10.1 This report has been agreed by the S151 Officer and Monitoring Officer.

Contact person	*Chris Major 01225 394231*
Background papers	*E3303 Cleveland Bridge Update and Options Report.*
Please contact the report author if you need to access this report in an alternative format	

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Bath & North East Somerset Council		
MEETING/ DECISION MAKER:	**Cabinet**	
MEETING/ DECISION DATE:	**9th September 2021**	EXECUTIVE FORWARD PLAN REFERENCE: E 3303
TITLE:	**Cleveland Bridge – Update and Options**	
WARD:	All	
AN OPEN PUBLIC ITEM/		

List of attachments to this report:

Appendix 1: Decision letter from the Department for Transport dated 29th October 2012

Appendix 2: Statutory Guidance on road classification and the primary route network - Published 13 March 2012

Appendix 3: Extract from the Road Investment Strategy 2: 2020-2025

1 THE ISSUE

1.1 Heavy Goods Vehicles (HGVs) travelling through Bath have been a concern for many years, particularly along A4 London Road, over Cleveland Bridge and A36 Bathwick Street. Local residents are concerned about the contribution made by HGVs to poor air quality, road safety issues, intimidation experienced by vulnerable road users and damage to the Bath World Heritage Site.

1.2 Cleveland Bridge is currently being repaired and a temporary Traffic Regulation Order restricting HGVs over 18 tonnes from using the bridge is in place. Once the refurbishment works are completed the temporary weight restriction will no longer apply and the route will continue to form part of Primary Route Network with unrestricted use. This report examines the options available to the Council to improve the traffic situation at Cleveland Bridge as well as improving air quality and safety throughout the city.

2 RECOMMENDATION

The Cabinet is asked to agree that the Council should continue to:

2.1 Work with Wiltshire and Dorset Councils and the Sub-Regional Transport Board (STB) Western Gateway to complete a strategic study into north-south connectivity between the M4 and the Dorset Coast with an aim of making the A350 the strategic route and limiting HGV use of Cleveland Bridge as part of the Governments Road Investment Strategy 2 (2020-25).

2.2 Assess and review the position after completion of the study, recognising that any investment that would resolve the core issue would be considered, at the earliest, as part of the Road Investment Strategy 3 which covers the period 2025-30. The study would also inform discussions between BANES and the other stakeholders. It is considered that this approach is the one most likely to result in a positive outcome for both B&NES and the other stakeholders involved.

2.3 Continue to make representations to Government about the need to improve the traffic situation at Cleveland Bridge, highlighting the changes to road conditions within Bath and the wider area since 2012 such as the changes to the A350 as part of the planned improvement and upgrade and the introduction of the Clean Air Zone in Bath.

2.4 Progress work on any of the other mechanisms which might also result in HGVs not using Cleveland Bridge.

3 THE REPORT

OTHER OPTIONS THAT COULD BE CONSIDERED

3.1 It is recognised that changes to the use of Cleveland Bridge is a complex issue which, if it is to be tackled effectively, needs to be approached from a regional and even national perspective. This involves working with the various stakeholders to find a solution which works for all. The primary alternative options would appear to be as follows:

a) The Council, as the local traffic authority, has the power to pursue a weight restriction traffic regulation order (TRO) to effectively prevent HGVs from using Cleveland Bridge. However, that would mean that those HGVs would have to use alternative routes and it would result in a significant diversion of the PRN. BANES does not currently have the agreement of other neighbouring local authorities or the Highways Agency for an alternative PRN route.

b) In light of the 2012 DfT appeal decision and the very clear position in the Statutory Guidance, it is considered highly likely that, were BANES to make a TRO now, it would be appealed and the Secretary of State would be likely to allow the appeal for the same reasons as set out in 2012. For the same reasons, there is also a risk that any decision by BANES to make a TRO now could be the subject of a legal challenge.

c) It is therefore considered that, in light of the lack of an agreed alternative route, the 2012 appeal decision, the Statutory Guidance and

the complex matrix of environmental impacts, that making a TRO to remove HGVs from Cleveland Bridge is not recommended at this time.

SUMMARY

3.2 Further work has been undertaken in the background to consider the issues and try to identify options to address this issue. The table below identifies work undertaken to date.

Action	Date
Appeal against a trial 18 tonne weight restriction upheld by DfT. Council informed they would be in breach of legislation if the progressed.	Oct 2012
Council has worked with Department for Transport, Highways England, Wiltshire Council and the Sub-Regional Transport Board (STB) Western Gateway to promote a strategic study into north-south connectivity between the M4 and the Dorset Coast with an aim of making the A350 the strategic route - Option is included within Governments Road Investment Strategy 2020-25 - Work has commenced on developing the options with B&NES Officers	2012-2021
Temporary 18tonne weight restriction put into place until bridge is repaired. Working with the Place community group identified HGV who breached the weight limit.	Feb 2020
Review of options including seeking specialist opinion on implementing a toll - Bridge originally had a toll before acquisition by the City of Bath Corporation in the 1920s, the Council's predecessor authority. - Under the Bath Corporation Act 1925 tolls were allowed to be charged for up to 7 years from when the Act was passed (i.e. up to 1932). - On top of that the Act included a power under S.54 to remove the tolls by resolution prior to that date. This is the power the exercise of which is recorded on a plaque on the Bridge. Once a resolution is made, the Bridge is to be treated as repairable by the public at large under the public health acts with free passage which is the case today. - A Toll Road need a new private act so is not an option that can be progressed - In terms of current legislation to levy a toll for vehicular traffic the Transport Act 2000 is too limited to apply a toll in this case - The New Roads and Street Works Act 1991 is for private schemes and cannot be applied	December 2020
Review of options including seeking specialist opinion on implementing a TRO for different reasons - In 2012 the DfT ruled that the Council's proposal was a breach of legislation as the Council had failed to secure the agreement of affected authorities.	Dec 2020

- This would apply regardless of the statutory reason for making the TRO including for; - Weight limits; - Air quality; or - Heritage reasons	
Council wrote to Department for Transport to gather further clarity regarding the 2012 decision - No response has been forthcoming to date	January 2021
Implementation of CAZ that charge the most polluting HGVs -	March 2021
Local Member of Parliament continues to raise the problems of HGV,s using the historic structure including: - Speaking in the House of Parliament - public webinar - meeting neighbouring MPs and the Metro Major on the bridge	2021
Structural repairs - Work commenced in May 2021 - Works scheduled to be completed by November 2021	May 2021
HGV Maximum Weight Limit Consultation - The outcome to the consultation on an increased HGV 48 tonne weight limit was released on 23rd August 2021. - The existing limit is 44tonnes with vehicle over 40 tonnes having to meet additional requirements in terms of suspension and axel loads. - The Government have agreed a 4-year trial, with restrictions to a maximum of 50 mile journey distance. Further consideration is to be given to infrastructure costs. - Any route requiring costly adaptations would be excluded unless a trunk road or Local Authority specifically wants to be included. https://www.gov.uk/government/consultations/heavier-intermodal-freight-trial	August 2021
Alternative options - Work continues to review and identify additional options to resolve concerns	Ongoing

BACKGROUND

3.3 Cleveland Bridge was built in 1826, it spans the river Avon and is a Grade II* listed building. Situated within a congested area on the edge of the city centre, the bridge has two-way traffic movements and footpaths on each side of the carriageway.

3.4 Bath and North East Somerset Council (BANES) are the local Highway Authority responsible for the maintenance of the bridge. The bridge is designated as part of the Primary Route Network (PRN) as it forms part of a long distance north-south strategic route between the south coast and the M4, with the predominant flow being between the A36 and A46. The PRN designates roads between places of traffic importance across the UK, with the aim of providing easily identifiable routes to access the whole of the country[1]. The A4/A46 is also part of the Strategic Route Network (SRN). The SRN consists of roads owned by the Secretary of State for Transport, and operated on their behalf by the Highways Agency (HA), now known as Highways England (HE). HE acts as the highway authority[2]. The A4/A36 through Bath fills a three mile gap in the SRN between the junction of the A4 and A46 north of the Avon and the A36 to the south. It is the only north/south trunk route below the M4 for 80 miles. The SRN is meant to include routes of particular importance to national travel.[3]

3.5 The bridge was in need of repair and as such there is currently a temporary Traffic Regulation Order restricting HGVs over 18 tonnes from using the bridge. This temporary traffic order was made in February 2020, due to the deterioration of the bridge.

3.6 £3.56m was secured from the Department for Transport for the refurbishment works which commenced on 4th May 2021. Once the refurbishment works are completed the temporary weight restriction will no longer apply and the route will continue to form part of the PRN and the SRN.

3.7 Previously in 2012, the Council put in place an experimental 18-tonne weight restriction on movements between Bathwick Street (on which Cleveland Bridge is located) and the A36 Beckford Road. Following an appeal to DfT by Wiltshire Council, Somerset County Council and Highways England, the DfT ruled that the Council's proposal was a breach of legislation as the Council had failed to secure the agreement of affected authorities. DfT concluded the appeal was valid and should be upheld. See Appendix 1.

3.8 The Department for Transport Statutory Guidance sets out the Local Authorities' responsibilities for the PRN and confirms that, although there has been a move towards giving local authorities more power to manage PRNs, the Secretary of State retains ultimate power. Any bodies that are required to manage the PRN, must do this in a managed way and must consult neighbouring authorities. The guidance is contained in full in Appendix 2*,* however the following passages are of particular relevance:

[1] Statutory Guidance on road classification and the primary route network - Published 13 March 2012
[2] Extract from 2012 Statutory Guidance as above
[3] Letter from the Department For Transport to Bath and North East Somerset Council, 29 October 2012,

2.13 A primary route must work as a single entity, even though it will often cross a number of jurisdictions in the process. The aim of a primary route is to ensure that traffic has a clear path between two primary destinations. Significant changes should be agreed between all of the authorities responsible for managing the primary route, to ensure consistency. In some cases, this will include the Highways Agency.

2.15 Where an authority wishes to make a significant change to a primary route, they must consult the other highway authorities along the route about changes that may affect them. Where changes will have an impact on the SRN (directly or in terms of signing), or the network for the movement of abnormal loads, the authority should first consult the HA.

2.16 Unless the agreement of all affected authorities can be obtained, including the Highways Agency where appropriate, then changes to the primary route should not be made.

2.27 The Secretary of State retains ultimate power over the PRN. In the case of disputes over the location of a primary route, affected parties may appeal to the Department for Transport for a ruling. This applies both to 12 *[sic]* local authorities concerned with the actions of their neighbours, and to members of the public who are concerned about an authority's decisions.

2.28 Where there is a dispute, the department will expect interested parties to attempt to reconcile the matter through discussion at a local level [……]

2.32 The Secretary of State retains ultimate legal responsibility for the PRN. They may exercise these powers if an authority has managed or developed the PRN in its area to the significant detriment of road users or neighbouring authorities, or for other reasons of policy.

[edits and emphasis added]

3.9 It is clear from the above that the Secretary of State is ultimately responsible for the PRN and that any significant changes to the PRN must be agreed with affected neighbouring authorities.

3.10 Following the DfT 2012 decision, and in line with the Statutory Guidance, the Council has worked with Wiltshire Council and the Sub-Regional Transport Board (STB) Western Gateway to promote a strategic study into north-south connectivity between the M4 and the Dorset Coast with an aim of making the A350 the strategic route. The Joint Local Transport Plan includes the need for a study. The strategic study has been included in the Highways England Road Investment Strategy. The study commenced in early 2021 and Highways England are aiming to report the recommendations from the work to the Department of Transport and

stakeholders in late summer 2022. An extract is contained in Appendix 3. Of particular importance is the following passage:

(1) "M4 to Dorset Coast – There are few north-south connections across the South West of England. The present strategic road for this area is a mixture of the A36 and A46, via Bath, Warminster and Salisbury. Local authorities in the area have suggested that there is a strategic case for adopting an alternative corridor – the A350 – as the main strategic route for the area; and then beginning a coordinated programme of upgrades to provide a high-quality route linking the M4 to the Dorset Coast including Bournemouth and Poole, with its economically-important port facilities. This raises a number of related questions, which are best considered together as part of a strategic study. We expect that this study will identify which corridor provides the main strategic route for the area; may recommend the trunking and detrunking of key routes; and may identify priority investments in the area that can be taken forward after the dualling of the A303/A358 is complete."

ENVIRONMENTAL CONSIDERATIONS

3.11 Impacts upon environmental assets have been considered for both the existing route through Bath and the possible routes through Wiltshire.

(1) There are a number of environmental designations along the existing HGV route, in particular at Cleveland Bridge itself, which is located in Bath's Clean Air Zone and Air Quality Management Area (AQMA), as well as running directly through the central Bath World Heritage Site (WHS), and within a B&NES allocated Conservation Area. The existing route also runs in close proximity to a number of SSSIs, at locations along both the A36 and A46.

(2) There are also several environmental designations present along the potentially alternative A363 route, which, notably, passes through Bradford-on-Avon AQMA, as well as over Bathford Bridge, a Scheduled Monument.

(3) The A350 route runs in close proximity to several designations, such as Picket and Clanger Wood SSSI, which lies directly adjacent to the A350 and Green Lane Wood LNR, of which the A350 runs through. Notably, this route runs through the Westbury AQMA. Conversely, this route avoids conflicting with a number of designations that surround Bath, including the UNESCO World Heritage Site and the Cotswolds AONB. However, some investments and improvements, including the duelling of the section at Chippenham have been completed since 2012, improving the route overall.

(4) In addition to the environmental designations mentioned, both existing and alternative routes pass directly through several residential areas, with sensitive noise and air quality receptors (residential receptors) in close proximity to the road network.

(5) It is considered that the re-routing of HGVs could lead to potentially significant impacts on air quality, noise and ecological receptors along both alternative routes.

3.12 Wiltshire Council officers have been liaising with BANES officers since 2019 regarding the diversion route along the A350 for the bridge closure when repair work is being undertaken. This included signage for the temporary 18 tonne limit and signage for the diversion. Following the implementation of the Clean Air Zone, Wiltshire Council requested monitoring which Government has not approved. The local media has reported complaints from residents in Wiltshire of increased traffic and impact on their AQMA. In April 2021 Wiltshire Council notified B&NES Council that they would no longer support the diversion route and would not give consent for their network to be used. Following the May elections this stance has not changed.

3.13 South Gloucestershire Council have raised concerns about increased traffic and the impact on their AQMA. They have given consent for the use of the M4 and ring road for the temporary diversion route. They have previously indicated that they would be concerned about traffic impact if BANES promoted a permanent 18 tonne weight restriction on Cleveland Bridge.

3.14 There are many sensitive environmental receptors both in Bath and in neighbouring authorities which would potentially be affected by the removal of HGVs from Cleveland Bridge. Therefore, it is important that the issue is addressed by taking a strategic and holistic approach.

UPDATE ON REPAIRS

3.15 WSP, the consultant appointed by the Council continue to undertake the work needed to repair the bridge. As part of the work programme, they have completed further detailed inspections of the structure of the bridge and this confirmed the extent of the defectives were worse than identified when engineers, using ropes to access the trusses, carried out a survey last year.

3.16 Accordingly, WSP have needed to continually update the repair information and have re-analysed each repair to establish which require full closure of the bridge. Dyer and Buttler continue with the concrete repairs and are assessing repairs options with an aim of reopening the bridge while the repairs continue.

3.17 As part of the next stage of the works and in line with the programme, on 13th September 2021 the water proofing of the deck will take place. This will be followed by the resurfacing works necessary to continue to return the bridge to an operational state.

4 STATUTORY CONSIDERATIONS

4.1 The relevant law and Statutory Guidance has been set out above.

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The current forward programme does not include a scheme for the implementation of a permanent weight restriction for Cleveland Bridge. If, contrary to the recommendation in this report, a permanent TRO were to be progressed then resources and funding would need to be allocated. The existing forward plan would also need to be adjusted to accommodate the additional works resulting in some existing planned works being delayed.

5.2 The Council's Medium Term Financial outlook currently forecasts a further revenue savings requirement of £13.1m for 2022/23 in order to set a balanced budget. Any costs associated with progressing a permanent weight limit or other mechanism would need to be developed on a cost neural basis with additional revenue or capital costs being funded from within the approved budget for the Transport portfolio. Any unbudgeted costs will need to be considered as part of the budget process for 2022/23 and future years.

6 RISK MANAGEMENT

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

7 EQUALITIES

7.1 It is considered that continuing to progress the strategic study and discussions with central and local government is the most effective way of addressing the environmental effects of HGVs using Cleveland Bridge. It is considered that this option does not give rise to any adverse equalities impacts, or result in a breach of the Human Rights Act 1998.

8 CLIMATE CHANGE

8.1 Progressing the strategic study and regional discussions also presents an opportunity to examine how the sustainability of the local road network might be improved, in line with the Council's declaration of a Climate Emergency.

9 OTHER OPTIONS CONSIDERED

9.1 The only other option identified is to take no further action. However, this option has been discounted because it is clear that the current traffic

situation on Cleveland Bridge is a significant environmental issue which must be tackled in the most effective way possible.

10 CONSULTATION

10.1 This report has been agreed by the S151 Officer and Monitoring Officer.

Contact person	*Chris Major 01225 394231*
Background papers	
Please contact the report author if you need to access this report in an alternative format	

Bath & North East Somerset Council		
MEETING/ DECISION MAKER:	**Cabinet**	
MEETING/ DECISION DATE:	**16 December 2021**	EXECUTIVE FORWARD PLAN REFERENCE E 3331
TITLE:	**Bristol to Bath Strategic Corridor**	
WARD:	All	
AN OPEN PUBLIC ITEM		
List of attachments to this report: None		

1 THE ISSUE

1.1 The BBSC (Bristol to Bath Strategic Corridor) seeks to improve travel between Bath and Bristol through better bus services, improvements to bus infrastructure, and develop facilities to enable more cycling and walking services and along the A4 route, as well as to the A4 route from neighbouring communities.

1.2 We want to provide better and more sustainable transport to help people move around more easily, reduce congestion, lower carbon emissions and improve the environment we live in.

1.3 The Strategic Outline Case (SOC) establishes the potential scope of the transport proposal. This sets out the rationale for intervention (the case for change) and confirms how the investment will further our priorities and wider government ambitions (the strategic fit) to determine the 'preferred way forward'.

2 RECOMMENDATION

Cabinet is asked to;

2.1 Note that WECA Joint Committee on 28th January 2022 will be asked to delegate authority to approve the Strategic Outline Case to Chief Executives on 17th February 2022 for progression to Outline Business Case.

2.2 Note early public engagement will be carried out Spring/Summer 2022 if the Strategic Outline Case is approved.

3 THE REPORT

3.1 The A4 Bristol to Bath corridor lies at the heart of the West of England and connects the two cities of Bristol and Bath and the communities of Keynsham and Saltford in between. There are 117,000 people living within the 'area of influence' for the corridor which includes neighbouring communities to the A4.

3.2 The overall daily travel to work demand in the region, indicate that there is a substantial amount of commuting demand between B&NES and Bristol circa 13,000 trips every day.

3.3 Traffic congestion along the A4 between Bristol and Bath results in delays to journeys by car and by bus along the corridor (with associated costs to the economy) and results in additional vehicle-kilometres on the network, which works against the targets to reduce vehicle-kilometres as part of our response to the Climate Emergency.

3.4 Long journey times for bus services and poor connections between services mean that bus as a mode is not an attractive transport choice for journeys along the corridor. As rail connectivity (along the corridor) is only provided at Keynsham, residents with the option to do so are likely to choose car for journeys from locations along and neighbouring the corridor. This is reflected in the mode share for the corridor.

3.5 Poor accessibility by public transport from communities along the corridor not served by a railway station impacts on the attractiveness of bus as an alternative to the car for journeys along the corridor.

3.6 Limited bus priority along the corridor means that congestion along the corridor has a significant impact on the reliability of bus journey times. Unreliable bus journey times make bus a less attractive mode for residents along the corridor travelling to Bristol or Bath.

3.7 Less than 20% of the A4 has formal cycle facilities supporting cycling along the corridor. The constantly high traffic levels along the A4 create substantial issues of severance for pedestrian activity along (and across) the A4. The lack of facilities, along with concerns about the poor air quality and cycle safety, is putting people off choosing to cycle along and to the corridor. A lack of quality facilities to support cycling and walking along the corridor and from communities neighbouring the corridor is limiting the opportunity for people to choose healthier, sustainable and affordable modes for travel.

3.8 There is a clear quantified link between good local bus services and levels of social deprivation. Studies have shown that areas that have 10% better bus services have 3.6% lower levels of social deprivation. Improving the affordable connectivity to reliable public transport for communities along the corridor can positively impact on the social inequality along and adjacent the corridor.

3.9 If traffic flows are not reduced and mode shift to walking, cycling and public transport achieved, the poor air quality and noise will not be improved and is likely to worsen as the population grows and congestion increases.

3.10 The residents along and neighbouring the Bristol to Bath corridor are heavily dependent on car as a primary mode of travel to work with an average of 54% mode share for car. The mode share for commuter journeys from communities along the corridor to Bristol or Bath is even higher at 77%. Along

the corridor, only 20% of commuting journeys are made by walking, 7% by cycling and 9% by bus.

3.11 There are 117,000 people living within the area of influence for the corridor which represents a significant opportunity to alter travel behaviours, with improved public transport and active transport infrastructure encouraging greater modal shift to these sustainable forms of travel.

THE IMPACT OF DOING NOTHING

3.12 The increase in population from housing growth, and the increase in the working population, will increase the travel demand along the corridor. If more attractive sustainable alternatives are not introduced this growth will result in higher congestion in the area, poorer air quality and higher carbon emissions.

3.13 There is an opportunity to "lock in" sustainable travel choices for the current and future residents along the Bristol to Bath corridor if the bus, walking and cycling infrastructure and services can be provided to serve new housing development.

3.14 Economic growth will be restricted if congestion levels cannot be eased, and improved sustainable connectivity provided. There is an opportunity to "lock in" sustainable travel choices for the key development sites identified if the bus, walking and cycling infrastructure and services can be provided to serve these sites and links between the sites and the communities along the Bristol to Bath corridor.

3.15 Without intervention, by 2036 the mode share for car is forecast to increase (based on available strategic transport modelling). The largest increase in car trips will come from journeys under 5km. Journeys of this length should generally be served by active travel and public transport modes.

3.16 JLTP4 estimates that if no action is taken the cost of congestion in the region could increase to £800m a year by 2036.

3.17 Unless the opportunity is provided for mode shift from car to sustainable modes, the number of journeys by car (and the vehicle-kilometres) will increase with the associated increase in demand on the highway network. As the highway network is already congested, increased demand will result in more congestion along the corridor, poorer air quality and higher carbon emissions.

3.18 The targets of reducing vehicle mileage by 40% by 2030 (set in the Bristol One City Climate Strategy) and of 25% by 2030 (set in the Bath Transport Delivery Action Plan Phase 1) will not be achieved if action is not taken.

3.19 There is a very clear case that action needs to be taken now in order to avoid a future situation along the Bristol to Bath corridor wherein the climate emergency is not addressed, economic growth is constrained due to congestion and where the growing population will have limited transport choices and be in poorer health due to poor air quality and increasingly inactive lifestyles.

THE PROPOSAL

3.20 The Vision for the BBSC is "to create a high quality segregated and prioritised public transport, cycling and walking corridor that will provide for

reliable services to encourage people to use sustainable transport modes for short and mid-distance journeys and contribute to tackling the climate emergency through modal shift."

3.21 The identified outputs from the scheme are:

- fast, at least five-minute frequency, reliable, high quality, zero-emission turn up & go bus service between Bristol Temple Meads and Bath bus station
- high quality bus stops
- 24-hour bus priority (where appropriate) and good interchange opportunities with other modes, services and amenities
- simple, fast and convenient off-board ticketing system for the BBSC service
- simple, coherent and efficient bus network that links local communities along and neighbouring the A4 with consistent marketing and branding
- continuous, direct, high-quality cycle route between Bristol and Bath which is
- segregated from general traffic and buses

3.22 By addressing the whole of the Bristol to Bath corridor the BBSC Programme will create a step-change in the provision of bus and cycling connectivity that will complement the existing and future bus network and encourage connected walking and cycling trips. This is in line with national ambitions for public transport, active travel, and decarbonisation and will encourage mode shift to bus and active travel modes.

3.23 A better-connected transport network brings with it improvements for the economy of Bristol, Bath and the communities along and neighbouring the Bristol to Bath Corridor. It is also a key lever in enabling development through the WECA Spatial Development Strategy and future B&NES Local Plan. It plays a critical role in any possible sustainable growth at Hicks Gate and Keynsham. The North Keynsham Strategic Development Location as set out in the now withdrawn WoE Joint Spatial Plan required that this public transport upgrade be in place prior to development; it is reasonable to assume that this will also be the case should development at Keynsham be proposed through the SDS.

3.24 The scope of proposed interventions include:

- Implementation of bus priority measures in the form of new/reallocated bus lanes, bus gates and bus priority at junctions
- Implementation of new and enhanced segregated cycle facilities in accordance with LTN 1/20 both along the route and to neighbouring communities
- Implementation of improvements (including link improvements and new/improved crossings) for pedestrians and cyclists to support access from communities and rail stations to the strategic bus corridor and strategic cycle route

- New bus stops and modal interchange hubs along the route linking to local centres, cycle routes and heavy rail opportunities
- Enhanced, accessible bus stops with improved public realm and active travel links supporting access to the stops. Select bus stops may potentially become mobility hubs
- Introduction of cycle hangers, car club spaces, electric charging points and Variable Message Signs (VMS)
- Enhanced green infrastructure along the corridor supporting biodiversity net gain
- Consistent branding and marketing to improve passenger information

THE OPTIONS

3.25 A robust business case must demonstrate that the preferred solution is not only a solution to the identified issues but is the 'right solution'. A range of solutions or options must therefore be considered, and an appropriate, documented assessment process undertaken to establish the preferred solution (or shortlist of options). This also provides an audit trail of the decisions made.

3.26 We have developed a Multi Criteria Assessment Framework provides a proportionate and staged sifting process to effectively and efficiently reduce the number of options under consideration and in doing so, identify those that are most likely to meet the requirements for the scheme.

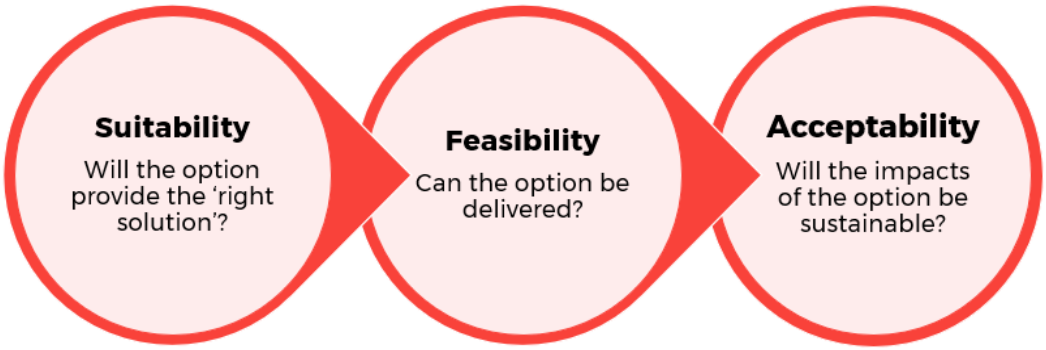

Figure 1: Assessment Themes

3.27 Sitting under the three assessment themes of Suitability, Feasibility and Acceptability (Figure 1) are 32 individual questions and scores, a few of which are set out below to demonstrate the broad and inclusive approach to sifting being taken:

- Likelihood of support
- Maximise opportunities for better health, increased physical activity, air quality
- Increase labour market catchments
- Protect and enhance natural capital

3.28 In addition, we are developing a carbon calculator tool which will further inform our sifting and thinking in the early part of the year. It is currently being developed from scratch and will be an integral part of our quantitative assessment process. For now, we are using a qualitative assessment.

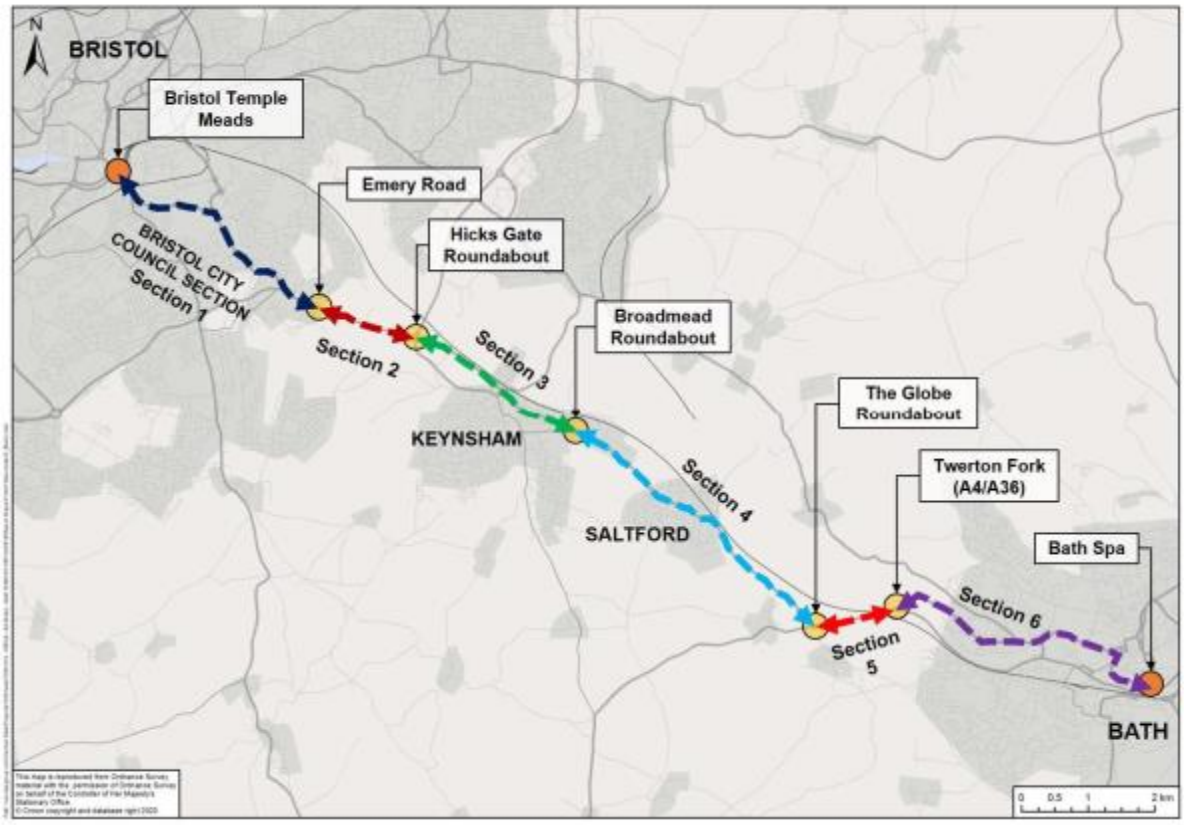

Figure 2: BBSC Corridor

3.29 The constraints and opportunities along the route vary, as such it has been broken down into six sections (Figure 2), five of which are relevant to B&NES. For each section we have explored smaller, medium and larger interventions.

3.30 The range of intervention approach allows us to develop ideas that respect existing highway ownership corridors in the smaller intervention ranging up to full segregation opportunities with the larger intervention.

3.31 Ultimately this should allow for a 'pick and mix' approach to building a corridor programme, introducing larger interventions where acceptable and choosing the smaller intervention where the constraints make it necessary to do so. It should be noted however, that the smaller intervention responds less well to the overall objectives of the programme.

3.32 The implementation of the BBSC programme may be phased and different sections of the corridor may be brought forward at different points in time. An 'early win' may be improving the community connections to the A4 route as it currently exists in preparation for the full public transport scheme.

3.33 Through a process of co-development across WECA, BCC, and various officers at B&NES, a large number of options have been developed. The options for Section 6 in Bath were co-developed with the team working on the Journey to Net Zero project as there is considerable overlap.

3.34 Workshops have been held across various disciplines such as planning policy, highways and transport including our walking and cycling specialists.

3.35 When assessed against the MCAF, those options have been reduced.

3.36 Overall, the scale of change and investment that could be achieved is summarised below:

- 15.5km of new cycling infrastructure
- 40 new crossings
- 30 new transport hubs/bus stops
- 15 public realm improvements
- £750k – 1.25M for green infrastructure
- £77.3M – 122.7M for public transport infrastructure

3.37 The 5-year funding bid for CRSTS included BBSC and ranged from £140M to 150M with match funding from enabled development sites. Work to refine the programme for BBSC continues.

NEXT STEPS

3.38 The Option Assessment Report and Strategic Outline Case will be presented in part to WECA Joint Committee on 28th January 2022. It is anticipated that due to a three-week delay, the recommendation will be to give delegated authority to Chief Executives to approve at their meeting on 17th February 2022.

3.39 If approval is given, the Bristol to Bath Strategic Corridor team will move to the Outline Business Case stage of which an early task is to have a public consultation on the options. This will then inform further development of the shortlisted options to allow for further assessment and identification of a preferred option. This would be concluded mid-2023.

3.40 A Full Business Case, which includes any development consents, planning permissions and tendering the contract could be achieved by mid-2024 with construction commencing at the beginning of 2025.

3.41 The programme will require a full review as part of the Outline Business Case including consideration of some early interventions around community connections and 'preparing' for the transformation with local projects that would assist mobility in the short term as well as form part of the more strategic intervention for delivery in 2023.

4 STATUTORY CONSIDERATIONS

4.1 The Statutory Considerations are contained within the body of this report.

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 The funding for the Strategic Outline Business Case has been provided through the Transforming Cities Fund. Discussions with the Combined Authority are on going to determine the level of financial resource required for the Outline Business Case and the exact allocation of the City Region Sustainable Transport Settlement.

5.2 Discussions with the Combined Authority are ongoing to determine the level of people resource required by Bath and North East Somerset Council.

6 RISK MANAGEMENT

6.1 A risk assessment related to the issue and recommendations has been undertaken, in compliance with the Council's decision-making risk management guidance and can be found within the Options Assessment Report.

6.2 The key risks to achieving the objectives are the following:

- Physical constraints on the network impacting on widening to support new bus lanes or bus priority measures. The physical constraints include environmental designations (in particular flood risk areas) and heritage assets (in particular in Bath)
- Costs required to overcome constraints or concerns about heritage impacts may result in a change in the scope of the Programme
- Interventions may require land take with associated impacts on landowners, property and land values
- Stakeholder opposition to land take and property impacts may delay the BBSC Programme or result in a change of scope

7 EQUALITIES

7.1 There are communities along the Bristol to Bath Corridor that face multiple challenges of deprivation. A reliable, well-connected public transport system is important to support access to employment, education and healthcare. As connectivity is not consistent along the corridor (compared to the cities) this may be one of the factors impacting on the levels of deprivation and lower life expectancies.

- The programme is key to tackling linked transport, social and environmental equality issues:
- Climate and Ecological (zero carbon movement and development, affordable connectivity, air quality, biodiversity, green infrastructure)
- Housing (affordability and market housing, disrupting the market, liveable communities, inspired placemaking)
- Economic (good and inclusive growth linked to Local Industrial Strategy)
- Health and Wellbeing (physical health, mental health, physical activity, healthy neighbourhoods, green and active travel)

- Social (inclusion, care, youth provision, community cohesion, long-term stewardship)

7.2 An Equalities Impact Assessment has not been carried out at this stage due to strategic level of the options under consideration. An EIA will be completed at Outline Business Case.

8 CLIMATE CHANGE

8.1 The B&NES Climate and Ecological Emergency Plan includes a priority for a major shift to mass transport, walking and cycling to reduce transport emissions.

8.2 If traffic flows are not reduced and mode shift to walking, cycling and public transport achieved, the poor air quality and noise along the Bristol to Bath corridor will not be improved upon and is likely to worsen as the population grows and congestion increases.

8.3 The principal aim of bus rapid transit is to Improve People's Lives through addressing the Climate, Ecological Emergency and transport poverty. Over time it will deliver significant outcomes through:

- A step change in sustainable travel;
- Zero carbon growth (housing, employment and transport); and
- Major investment in infrastructure co-ordinated with housing and employment development.

8.4 The programme also includes production of a carbon calculator that will demonstrate the carbon savings generated through the programme from a modal shift to public transport.

9 OTHER OPTIONS CONSIDERED

9.1 None

10 CONSULTATION

10.1 The development of the BBSC Programme has drawn on the views of stakeholders on the existing problems and challenges and on ideas proposed to address the problems. Stakeholder views have been drawn from the following sources.

10.2 BBSC Programme Engagement (Summer 2021) - Public engagement was undertaken between July and September 2021 to gather the views of the public on the current challenges and issues affecting travel along the A4 corridor between Bristol and Bath.

10.3 The engagement took the form of a survey and an interactive map to which comments could be added. Views were sought on the A4 between Bristol and Bath around the themes of:

- current travel choices
- factors affecting travel choices along the corridor

- factors affecting bus travel, cycling and walking and
- suggested improvements that would encourage bus travel, cycling and walking

10.4 People responding to the survey were able to comment on improvement themes and provide further ideas for improvements along the Bristol to Bath corridor.

10.5 More than 1,300 responses were received the key highlights from the engagement are as follows:

- Factors affecting travel choices along the corridor
    - 75% of the respondents rated traffic flow along the A4 is “Poor”
    - 71% of the respondents rated air quality along the A4 is "Poor"
    - 59% of respondents indicated that a bus waiting time of 6 to 10 minutes was acceptable.
    - More than 60% of respondents indicated that they are very likely to use the bus often if the bus services are more reliable, and the bus fares are lower
    - 56% of the respondents indicated that they are very likely to use the bus often if the bus services are more frequent
    - 35% of the respondents indicated that they are very likely to use the bus often if space for bicycles is provided on buses
- Factors affecting cycling and suggested improvements that would encourage cycling:
    - Many of the respondents (51% – 80%) gave a “Poor” rating for a number of the factors identified in the survey, with the number of vehicles on the road, sharing the road with other traffic, the amount of segregated cycle lanes, feeling safe along the route and cycle priority at junctions receiving the most “Poor” ratings
    - Respondents indicated that they are very likely to cycle more often if separate cycle lanes are provided (72%), if there is less traffic on the route (66%), and if safer junctions and crossings with priority for cyclists are provided (62%). The importance of cleaner air and less pollution was highlighted by 56% of respondents
- Factors affecting walking and suggested improvements that would encourage walking:
    - 77% of respondents rated air quality along the A4 as “Poor”
    - 42% of respondents rated the quality of walking routes and public places as “Poor”

- 37% of respondents rated the number of crossing points as "Poor"

- 31% of respondents rated the quality of the pavement as "Poor"

10.6 Respondents indicated that they are very likely to walk along the A4 more often if the air is cleaner and less polluted along the route (56%), if more green spaces and/or trees are provided (47%), if there is less traffic on the route (44%) and if segregated paths are provided (43%).

10.7 Conclusions from BBSC Programme Engagement (Summer 2021) have informed the identified problems and challenges along the Bristol to Bath corridor. The improvements proposed by the public reflect the need to address air quality and congestion and to provide improved cycling and walking facilities and enhanced bus services. There is clear alignment between the proposed interventions and the public engagement response.

10.8 Previous Engagement Inputs to Policy - The stakeholder engagement inputs to the following policies and strategies are summarised below:

- Spatial Development Strategy - Future of the Region Engagement Report (March 2021)

- West of England Combined Authority Bus Strategy (June 2020)

- Draft Joint Local Transport Plan 4 (JLTP4) (January 2020)

- Joint Transport Study (October 2017)

10.9 Previous engagement responses indicate strong support by the public for improvements to the bus, cycling and walking networks, including the principle of expansion of the metrobus network. There is clear support for the BBSC Programme, and the scope of interventions included within the Programme and set out in this business case.

10.10 B&NES ward member workshop was organised at the request of B&NES Cabinet Members for Transport and Highways. WECA hosted this event on 2nd December 2021 to outline our work to date. This event was well attended and received.

10.11 If the SOC is approved and we progress to Outline Business Case the next planned engagement is a full public engagement Spring/Summer 2022. We would seek to engage the public and stakeholders on the range of options identified and seek feedback to help inform option development.

Contact person	Claire Nimmo
Background papers	None
Please contact the report author if you need to access this report in an	

alternative format

Bath & North East Somerset Council		
MEETING/ DECISION MAKER:	**Cabinet**	
MEETING/ DECISION DATE:	**16th December 2021**	EXECUTIVE FORWARD PLAN REFERENCE: E3332
TITLE:	**Quarter 2 Strategic Performance Report 2021/22**	
WARD:	All	
AN OPEN PUBLIC ITEM		
List of attachments to this report: **Annex 1 Strategic Indicator Report qtr. 1 2020/21**		

1 THE ISSUE

1.1 This report is presented using the Council's **Integrated Reporting Framework (IRF)**. It updates Cabinet on the progress made against a key set of strategic performance measures which assess our progress on delivering the Corporate Strategy and key aspects of service delivery.

2 RECOMMENDATION

The Cabinet is asked to:

2.1 Note progress on the delivery of key aspects of the Council's service delivery, details of which are highlighted in section 3.7 and Annex 1.

2.2 Indicate any other key service areas to be highlighted and included in the strategic indicator report.

2.3 Agree to receive update reports on a quarterly basis

3 THE REPORT

3.1 Full Council adopted a new four-year Corporate Strategy at its meeting on 25th February 2020. The document set a new direction for the Council, reflecting the aims of the administration elected in May 2019 and providing a clear approach to the Council's activities and priorities.

3.2 The Corporate Strategy is the Council's overarching strategic plan. It sets out what we plan to do, how we plan to do it, and how we will measure performance over the next four years. It contains a new framework for what we will focus on and how we will work, as follows:

1) We have one overriding purpose - **to improve people's lives**. This brings together everything we do, from cleaning the streets to caring for our older people. It is the foundation for our strategy, and we will ensure that it drives our commitments, spending and service delivery.
2) We have two core policies - **tackling the climate and ecological emergency** and **giving people a bigger say**. These will shape our work.
3) To translate our purpose into commitments, we have identified three principles. We want to **prepare for the future**, **deliver for residents** and **focus on prevention**. These, in turn, help us to identify specific delivery commitments across our services.

3.3 At the same meeting, Full Council also adopted the **Budget for 2020/21** and Financial Outlook report, which set out how the Corporate Strategy will be resourced.

3.4 The Council collects and monitors a wide range of key performance indictors to measure its delivery. Many of these are of a statutory nature and need to be reported to central Government, and there are also many local indicators developed by services to allow them to measure the delivery of Council services.

3.5 The Council has developed its own in-house **Integrated Reporting Framework (IRF)** which enables officers to monitor many aspects of the Council's delivery and performance. The framework is a dashboard-based online tool that allows the collection and monitoring of performance data directly from the Council's main business systems in many instances and is now used as the main tool for officers to measure progress. The IRF currently collects and monitors information on the following.

- Service performance through a set of agreed performance indicators
- Finance Overview
- Risk Management
- Contracts and Commissioning Intentions
- Corporate Data and Intelligence

3.6 The IRF has over 200 performance indicators that officers use to measure Council performance. Many of these are of a statutory nature and need to be reported to central Government. There are also a lot of local indicators developed by services to allow them to measure the delivery of Council services. This is considered far too many to meaningfully report to Members through the democratic process, therefore a strategic set of indicators (shown at Annex 1 to this report) has been chosen to allow Members to focus on some key areas of delivery.

3.7 Members should obviously be aware that progress against the delivery of the Corporate Strategy and some aspects of service delivery has been hindered by the COVID pandemic and the need to reallocate resources (staffing and finance) away from addressing these priorities in 2020/21. Despite this, some good progress has been made, which is highlighted in Annex 1. For instance:

- In the latest annual residents' survey (Voicebox) carried out in November 2020, residents were asked about the impact of COVID-19 in their local area and how satisfied they are with their local area as a place to live. 87% of residents were satisfied with their local area as a place to live.
- 64% of residents are satisfied with how the Council runs things, which is an increase since 2018.
- The 2021 survey of 3750 households has been sent out to residents. The results will be reported in Qtr 3 report in February 2022.
- The Council has seen an increase in the number of Children on Education Health & Care Plans (EHCP) to over 1,702 at the end of September 2021. This has a direct impact on resources of both the Council and schools.
- The rate for household waste recycled / composted is 61% for qtr 2 against our target of 60%, this demonstrates success in moving towards our zero-waste ambition.
- The Council had reported to it over receives over 500 incidents of fly tipping during 2020/21
- The in-house Energy at Home Service has provided information or signed posted over 176 households to additional services for savings energy at home
- We have a statutory responsibility to ensure that people's needs are being met by at least an annual review for Adult Social Care; during the most difficult year the Council has ever faced, we still achieved performance of over 68% against our target of 80%.
- The Council wants to reduce the number of people in a care home setting to demonstrate we are supporting people to maximise their independence. The Council target is of 51 home admissions per 100k and we currently reporting performance at 44 per 100k which is well above target.
- The Council also achieved 100% of Adult Safeguarding enquiries where risks were either removed / reduced during the 2nd quarter.
- Members should also note that from November 2020 until the final payment period at the end of June 2021, the Council successfully administrated nearly 18,000 Business Grants payments to local businesses. Totalling over £44.3m.

3.8 Members received the first quarterly report at its Cabinet meeting in September. Members can comment on the strategic indicators in this report and request any changes or addition to the report. These can then be incorporated to further iterations of the Strategic Indicator Report during the remainder of the year.

3.9 Directors are currently developing comprehensive Service Plans for service delivery in 2022/23. Part of this process will involve a review of all the key performance metrics will are available to monitor performance. A revised set of strategic indicators will be available from Qtr 1 of 202/23.

4 STATUTORY CONSIDERATIONS

The Council has a wide range of powers which allow it to deliver the Strategy adopted in February. It should be noted however that the government has introduced an extensive range of new legislation, regulations and guidance during the last 18 months, which may influence how certain aspects of the Strategy are delivered. It was subject to a full Equalities Impact Assessment and it is important that equalities are actively pursued as we implement the strategy.

5 RESOURCE IMPLICATIONS (FINANCE, PROPERTY, PEOPLE)

5.1 Council agreed the resourcing requirements for 2021/22 at its Budget meeting in February 2021.

6 RISK MANAGEMENT

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

7 CLIMATE CHANGE

7.1 A detailed report was presented to Council in January 2021 on our progress in tackling the climate and ecological emergency. The current report provides an opportunity to re-emphasise how these commitments are reflected as “core policies” in delivering the Corporate Strategy. Tackling the climate ecological emergency is also at the centre of our renewal vision.

7.2 Monitoring the effectiveness of delivering on Climate Change is one of the key components of the strategic report. Indicators are being developed to allow further monitoring against the Council target.

8 OTHER OPTIONS CONSIDERED

8.1 None

9 CONSULTATION

9.1 This report has been cleared by the S151 Officer and Monitoring Officer.

Contact person	Steve Harman, Head of Corporate Governance & Business Insight Jon Poole, Busines intelligence Manager
Background papers	• Corporate Strategy • Qtr 1 Strategic Performance Report sept 2021
Please contact the report author if you need to access this report in an alternative format	

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Bath & North East Somerset Council

Improving People's Lives

Strategic Indicator Summary

Preparing for the Future *Click on an indicator to see more*

Installed renewable energy capacity (MW)	Number of trees planted on Council land	Department for Transport average speed on roads …	% environmental issues reported online	% residents satisfied with local area as place to…	Children on Education Health & Care Plans (E…	Key Stage 4 Average Attainment for a…	Mental Health: Adult service users in employ…
23	6666	26	74%	87%	1702	48.9%	9%
Higher is better	Higher is better	Higher is better	Higher is better	Higher is better	-	Benchmark: 46.8%	Target: 8%

Delivering for Residents *Click on an indicator to see more*

% of household waste recycled/compo…	EPC Score A-C for B&NES residential	% residents satisfied with the council	Adult social care reviews - % people with a re…	Housing Delivery Targets - Net new homes	Number of fly tips reported
61.0%	32%	64%	68%	1163	546
Target: 60.0%	Higher is better	Higher is better	Target: 80%	Target: 722	Lower is better

Focussing on Prevention *Click on an indicator to see more*

Number of contacts to Energy at Hom…	% Adults at home 91 days after reablement serv…	Children looked after per 10k	Children on Child Protection plan per 10k	Adult Social Care: Care Home admissions per …	Adult Safeguarding: % enquiries where…
176	86%	48	32	46.3	100%
Higher is better	Target: 85%	Lower is better	Lower is better	Target: 51.0	Higher is better

Report ▶

Bath & North East Somerset Council

Improving People's Lives

Strategic Indicator Report

Preparing for the future

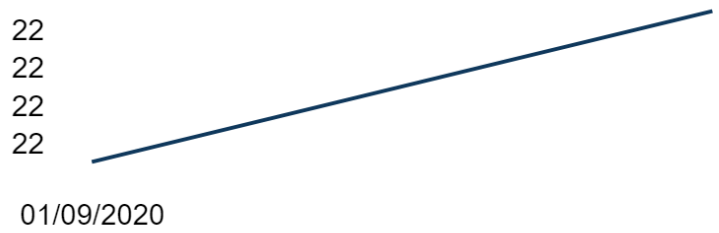
Our area is changing. We must change with it and help local residents prepare for the future. We want to promote high-quality, high-skill jobs, for example, in the new green jobs sector and in new technologies. At Bath Quays, we are creating a vibrant commercial quarter in the heart of the city which is delivering new jobs and homes. We also have a programme aimed at making our high streets more attractive places to visit, including greener ways of getting around the area and support to businesses.

We will work with partners, organisations such as the West of England Combined Authority, and local communities, to secure long-term investment in our local infrastructure. Our priorities for this are sustainable transport, homes and energy. So that they can take advantage of these changes, we want to help our young people acquire and enhance the skills they need to achieve their ambitions. To do this we will also need to address inequalities of outcome in education, particularly in the early years.

We also need to make the most of new technology, and be smarter and more flexible in the ways that we work. We need to be clearer about what we can and cannot provide. Increasingly, we will ask residents to self-serve for our more transactional services, so that we can better support people who need our help the most.

Installed renewable energy capacity (MW)

Frequency: Annually



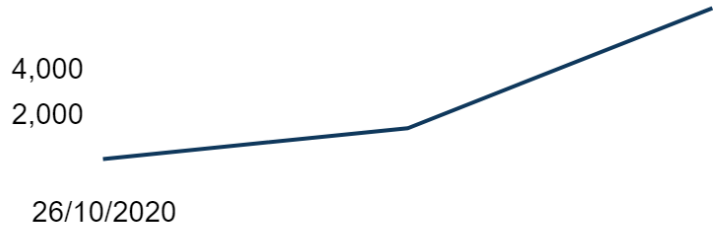
23

07/10/2021

In the 2022 we should see a more substantial rise, as there is a fair bit in the Council own pipeline (and a few large planning applications expected)

Number of trees planted on Council land

Frequency: Annual



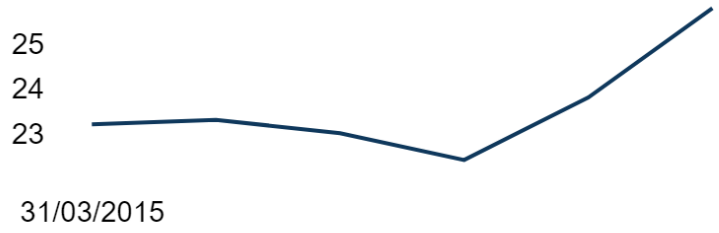
6,666

31/03/2021

The council has an ambition to plant 100,000 trees in the district - not just on council land. This indicator is the planting under Council control.

Department for Transport average speed on roads (mph)

Frequency: Annual



26

31/03/2020

Higher speeds indicate less congestion and more free flowing conditions, reduction in speed indicate increased congestion and more queuing on network.

Bath & North East Somerset Council
Improving People's Lives

Strategic Indicator Report

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% environmental issues reported online

Frequency: Monthly

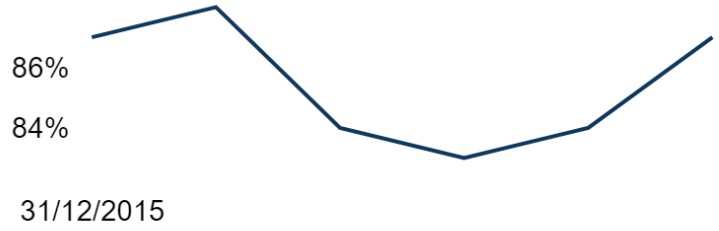
74%

31/10/2021

Performance remains consistent for this measure, which will be reviewed as part of the Council's emerging Customer Contact Strategy.

% residents satisfied with local area as place to live

Frequency: Annual



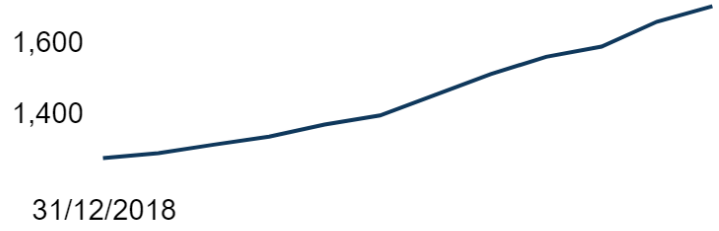
87%

31/12/2020

Rates for this indicator remain consistently high.

Children on Education Health & Care Plans (EHCP)

Frequency: Daily/Live



1,702

30/09/2021

In common with other Local Authorities, B&NES continues to see an increase in the number of children on Plans

Bath & North East Somerset Council
Improving People's Lives

Strategic Indicator Report

Preparing for the future

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Key Stage 4 Average Attainment for all pupils

Frequency: Annual

46.8%
Benchmark

48.9%

09/07/2020

National data collection suspended Mar 2020. 2022 next release

Mental Health: Adult service users in employment

Frequency: Monthly

8%
Target

9%

30/09/2021

Employment is a significant factor in improving people's mental health and this indicator demonstrates our support in this area

Bath & North East Somerset Council
Improving People's Lives

Strategic Indicator Report

Delivering for residents

Access to housing, and getting around our area are key local concerns. We are determined to secure more affordable and social housing, improve the quality of rented housing, make our housing stock green and tackle fuel poverty.

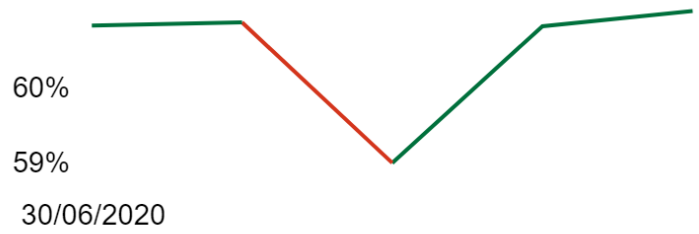
We will also facilitate significant improvement of the transport infrastructure and encourage behaviour change to forms of transport other than the private vehicle. This will enable a major shift to walking, micro-mobility (cycling), car-sharing, buses, and rail.

Alongside the introduction of the Clean Air Zone, we have wider ambitions for a more pedestrian-friendly city centre and reducing the impact of cars in residential streets through better traffic management, and reductions in 'rat-running'.

To support this, we need to understand the views and needs of our local communities. We are committed to improving how we involve local people in our decision making, such as on local transport schemes, ensuring that they have a greater say in how their services are designed, funded and run.

% of household waste recycled/composted

Quarterly



60.0%
Target

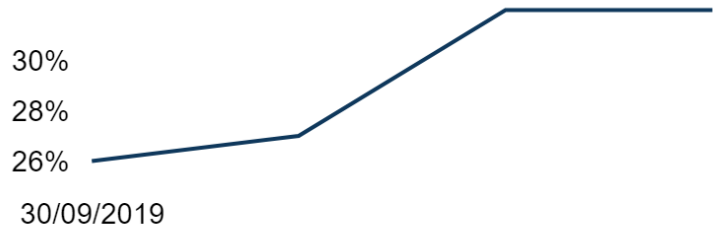
61.0%

03/11/2021

This indicator, when considered alongside the amount of waste produced per household demonstrates success in moving towards our zero waste ambition.

EPC Score A-C for B&NES residential

Annual



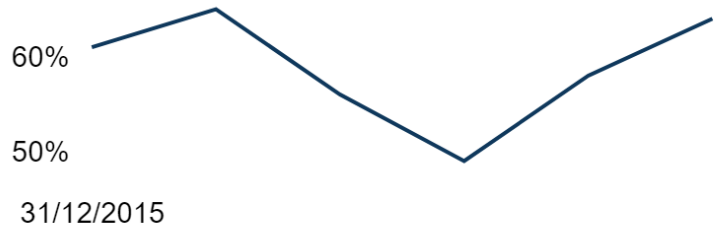
32%

30/09/2021

Shows the % of properties with a satisfactory energy efficency rating. Trend shows a positive direction of travel.

% residents satisfied with the council

Annual



64%

31/12/2020

The latest figures now show a return to the high rate of satisfaction seen in previous years, following a temporary fall in the rate in 2018

Bath & North East Somerset Council

Improving People's Lives

Strategic Indicator Report

Delivering for residents

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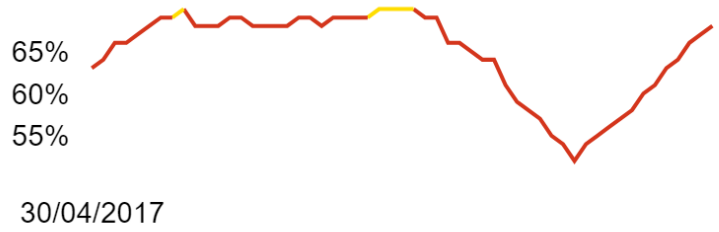
Adult social care reviews - % people with a review

Monthly



80%
Target

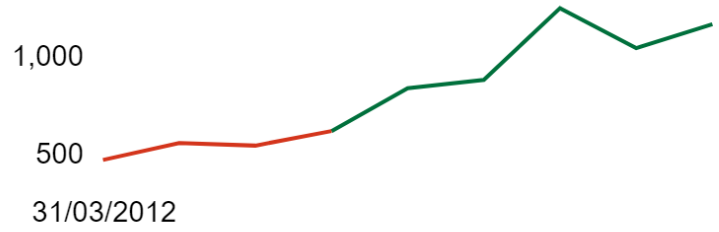
68%

31/10/2021

We have a statutory responsibility to ensure that people's needs are being met by at least an annual review

Housing Delivery Targets - Net new homes

Annual



722
Target

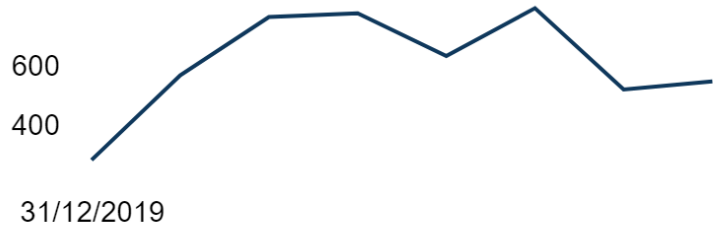
1,163

31/03/2020

B&NES has exceeded its annual housing delivery requirementg of 648 news homes per annum for the last 6 years.

Number of fly tips reported

Quarterly



546

30/09/2021

Reports come from fix my street and from operational staff within the Council. This is the number reported - not necessarily the number we attend.

Bath & North East Somerset Council
Improving People's Lives

Strategic Indicator Report

Focusing on Prevention

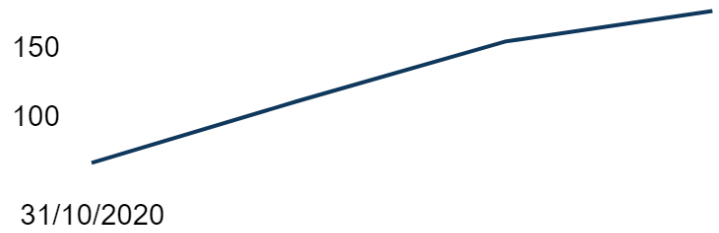
Having a clear approach to prevention is essential to improving people's health and wellbeing, sustaining the social care and health services we all value and rely on, and strengthening our local economy. For example, properly insulated homes are cheaper to run and help prevent cold-related ill health as well as contributing to addressing the climate emergency. Bath's Clean Air Zone is also a good example of how we are preventing ill health through reducing air pollution.

People should receive the support they need in the most efficient, effective and timely way, reducing demand for later and more costly interventions. Everyone has a part to play and our residents should be supported to stay healthy, live well and be independent for as long as possible, making good choices for their own health and wellbeing. For example, we can promote active travel, such as walking and cycling.

We cannot do this alone and we will need to build on our joint working arrangements with partners, voluntary organisations, parishes, and residents, through growing initiatives such as Compassionate Communities, which was exemplified in the creation of the Compassionate Communities Hub. We will always ensure that we continue to protect and support our most vulnerable residents.

Number of contacts to Energy at Home Info Centre

Quarterly



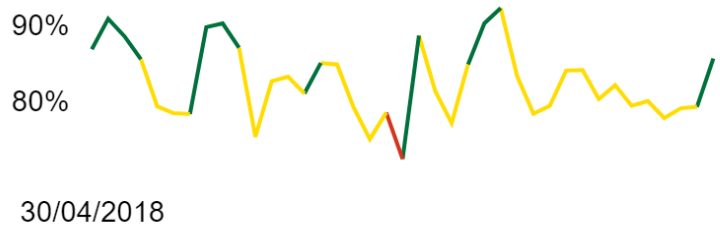
176

30/09/2021

New in-house service providing information & signposting for residents. Looking to promote service more widely through comms channels.

% Adults at home 91 days after reablement service

Quarterly



85%
Target

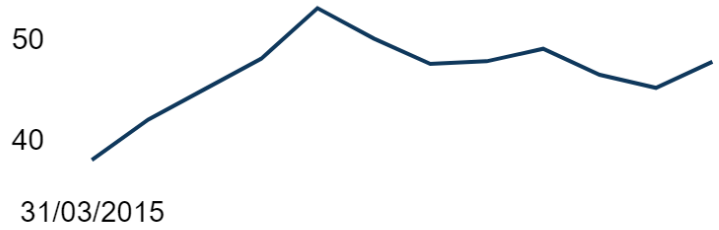
86%

30/06/2021

This evidences that reablement supports people to maximise their independence and remain at home

Children looked after per 10k

Daily/Live



48

30/09/2021

Rates are consistent for past 4 years. A rise in Special Guardianship Orders is in line with our aims in the Safeguarding Outcomes Service review.

Bath & North East Somerset Council
Improving People's Lives

Strategic Indicator Report

Focusing on Prevention

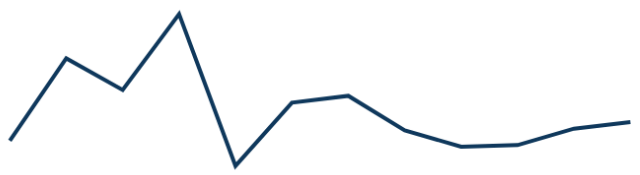
Having a clear approach to prevention is essential to improving people's health and wellbeing, sustaining the social care and health services we all value and rely on, and strengthening our local economy. For example, properly insulated homes are cheaper to run and help prevent cold-related ill health as well as contributing to addressing the climate emergency. Bath's Clean Air Zone is also a good example of how we are preventing ill health through reducing air pollution.

People should receive the support they need in the most efficient, effective and timely way, reducing demand for later and more costly interventions. Everyone has a part to play and our residents should be supported to stay healthy, live well and be independent for as long as possible, making good choices for their own health and wellbeing. For example, we can promote active travel, such as walking and cycling.

We cannot do this alone and we will need to build on our joint working arrangements with partners, voluntary organisations, parishes, and residents, through growing initiatives such as Compassionate Communities, which was exemplified in the creation of the Compassionate Communities Hub. We will always ensure that we continue to protect and support our most vulnerable residents.

Children on Child Protection plan per 10k

Daily/Live



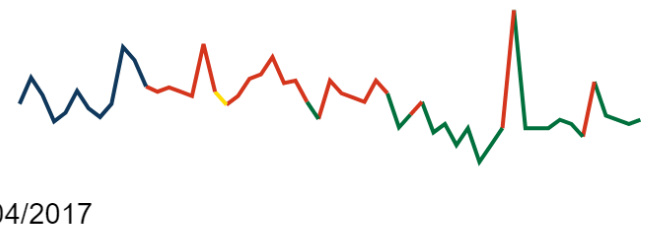
32

30/09/2021

Rates are low compared to similar authorities. Attributed to good management of risk and in line with our practice framework principles and values.

Adult Social Care: Care Home admissions per 100k

Monthly



51.0
Target

46.3

31/10/2021

We would want to reduce the number of people in a care home setting to demonstrate we are supporting people to maximise their independence

Adult Safeguarding: % enquiries where risk removed/reduced

Quarterly

100%

31/10/2021

We would want to see that risk is removed to demonstrate good safeguarding practice that minimises harm and risk