TITLE: Improving Public Health: Bristol Clean Air Plan – Outline Business Case

Ward(s): Citywide

Author: Adam Crowther  Job title: Head of Strategic City Transport

Cabinet lead: Mayor  Executive Director lead: Mike Jackson

Proposal origin: Other

Decision maker: Mayor
Decision forum: Cabinet

Timescales:
• Outline Business Case to Cabinet for approval – 5th November 2019
• Full Business Case to Cabinet for approval - February 2020
• Implementation date for Clean Air Zones nationally - March 2021

Purpose of Report:
To seek approval from Cabinet to:
• Approve the Outline Business Case (OBC) for submission to the Joint Air Quality Commission (JAQU), setting out the recommended option for which Clean Air Zone (CAZ) scheme should be adopted in Bristol;
• Authorise officers to produce a Full Business Case for the option approved by Cabinet;
• Approve the necessary resources, as set out in the Outline Business Case required to deliver the Full Business Case to be considered by Cabinet in February 2020.

This report provides a summary of the current position of the Bristol Clean Air programme and the recommended option proposed for adoption by Cabinet. Appended to this report is the full Outline Business Case (including an exempt appendix) that is to be submitted to Her Majesty’s Government in line with ministerial direction. For further detail on the background timeline for this recommendation please see the Cabinet Paper for July 2019.

Evidence Base:
Bristol City Council is committed to improving air quality. Pollution from traffic is a serious problem in Bristol and other major UK cities. The central areas of the city and the main arterial routes have been identified for a number of years as being in breach of the legal levels set by the UK and the EU for levels of NO2 due to the amount of vehicles using these routes. The Council’s own reports have calculated that deaths of around 300 Bristol residents could be attributed to air pollution each year. The Council’s Corporate Strategy outlines a vision for Bristol that includes leading the way on tackling the damaging impact of air pollution, alongside a pledge to develop an air quality action plan and work with bus operators to explore and invest in new fuel technologies to help reduce air pollution overall.

While these Clean Air Zone proposals focus on achieving compliance with nitrogen dioxide limits Bristol City Council recognises the health improvements that can be achieved by reducing particulate pollution. In most cases, the measures to reduce nitrogen dioxide pollution should also reduce particulate pollution. The Council is also considering further measures as part of the wider Clean Air Plan to reduce emissions from other sources other than transport i.e. using smart energy technology to support the efficient use of energy in over 50% of homes, the proportion growing year on year thereafter; Increasing the number of taxis on Ultra Low Emissions; Having a full fleet of bio-fuel buses; Having a fully operational freight consolidation centre, reducing freight journeys in and around the city centre; continuing metro west developments to grow rail usage; Achieving the gold standard for Bristol in the Sustainable Food City Awards; and completing the ring of park and rides around the city to reduce the number of
cars driving into the city.

Moreover the Council will raise awareness and enforce the existing Smoke Control Legislation in licenced premises to reduce the illegal burning of wood and solid fuels. This will include domestic wood burners and bonfire nuisance. The Council is also working with schools, parents and pupils to close roads to cars, outside of schools during drop off and pick up, everywhere possible. In the Construction industry, the Council is reviewing the new powers planned by government to reduce emissions from non-road mobile machinery and gather evidence to further consider tightening mobile machinery standards used in Bristol, in line with low emission zone standards. The Council is also considering adopting the 2018 Institute of Air Quality Management best practice guidance on monitoring construction and demolition sites to ensure effective management of emissions of dust and particulates. Working with our city partners on the city centre revitalisation group and our preparation for the Western Harbour, the Council is putting an active travel at the heart of the plans. This will include planning that brings homes together with retail and entertainment in the name of minimizing the need to travel.

Due to the need to improve air quality in urban areas nationally, Her Majesty’s Government in 2017 formally directed 24 local authorities, including Bristol City Council, to submit plans for how they will achieve compliance to the legal Nitrogen Dioxide (NO2) limits and how they would implement these plans by March 2021. Local authorities are required to model various options for achieving clean air and to take forward the option that delivers compliance using the following three legal tests:

1. Achieves compliance with the legal NO2 limits in the shortest period of time.
2. Reduces human exposure as quickly as possible.
3. Ensures that compliance is not just possible but likely.

Bristol City Council is committed to delivering an option that complies with the legal tests while at the same time seeking to put in place measures that will mitigate any disproportionate adverse impact on vulnerable citizens and low income households. To develop Bristol’s proposed option, officers from the Council have been in regular contact with officials from JAQU throughout 2018-19. Initially the Council developed a shortlist of options in line with JAQU assessment criteria reported to council in March 2018. The subsequent assessment of these options produced 2 ‘preferred options’ based on the year they would be likely to reach compliance. Modelling showed the options having different compliance dates; 2030 for the CAZ D (charging all non-compliant modes) and 2024 for a Small Area Diesel Car Ban. The first option raised concerns about time to compliance and both options raised concerns about the impact on low income households, so further consideration was given to options that would meet the terms of the directive and legal tests, while at the same time mitigating the impact on vulnerable and low income households. This led to the development of further options based on a CAZ C (which charges non-compliant vehicles), which initial analysis suggested could reach compliance at about the same time as the small area diesel ban, which had reached compliance quickest in the first phase of work. It was therefore decided to publically consult on:

- Option 1 – A CAZ C, charging non-compliant buses, taxis, HGVs and LGVs, with additional measures. This charge applies once a day regardless of how many times you go in or out of the medium zone.
- Option 2 – a small area diesel car ban enforced between 7am to 3pm.

Once the detailed modelling work had become available on the week commencing 15th July, this showed later than expected compliance dates of 2028 and 2029. Therefore the council announced that further options were being explored to ensure we identified the option which would reach compliance with the legal tests in the shortest possible time. This included modelling of a CAZ D benchmark (medium area charging zone to include private cars and additional measures similar to the CAZ C option) and a hybrid option that combined both the CAZ C and the small area diesel ban.

The full results of this consultation are set out in in the appendix OBC37.

The hybrid scenario combines all the aspects of Option 1, with Option 2 (i.e. Option 1 with a small area diesel car ban). It is similar to the Medium CAZ C as it builds on previous solutions, but also includes the diesel car ban.

In September 2019 a letter was received from the Minister that agreed to a short extension to the Outline Business Case submission date providing the implementation date does not change, enabling the Council to robustly model a
‘hybrid’ option that would deliver the required improvement in air quality in the shortest possible time and ensure the necessary technical work required was completed to the required standard by JAQU.

The Council’s modelling and analysis has identified that the ‘hybrid’ option would achieve compliance with the legal NO2 targets in line with the legal tests. In particular, the ‘hybrid’ option would achieve compliance in the shortest possible time, 2025, earlier than the benchmark option, and achieves the greatest reduction in emissions in the long term, as well as reducing human exposure earlier than all other options (further detail can be found in the economic case appended to the report (Table 3.10)). In particular the table demonstrates that for main sites exposure will be reduced sooner than 2025. The initial hybrid compliance date of 2027 shown in this table was driven by Church Road. Subsequent further work indicated that was due to an overestimation of traffic volumes on Church Road. When this was tested with more accurate data Church Road was found to be compliant by 2025.

**It is recommended that the ‘hybrid’ option is progressed to Full Business Case.** We are confident that the preferred option meets the legal tests, including that it will be capable of implementation. The Government will need to enact the required secondary legislation to enable implementation of aspects of the option (diesel ban). Following our conversations with the Department for Transport and Department for Environment and Rural Affairs we are confident this will be achieved. In the unlikely event that the Government decides not to legislate the Council will have to consider other options (including the benchmark option) and implement the option that meets the legal tests.

Bristol will be the first local authority to implement such a combination of clean air measures. This bold approach demonstrates both our commitment to clean air and our wider commitment to tackling climate change in the city; both of which require step changes to tackle these challenges.

To support this option and support businesses and residents impacted, a wide range of mitigation measures are being considered. Amongst others these include: a scrappage grant scheme and provision of grants to businesses affected; cycling, walking, bus and traffic management infrastructure schemes; further sustainable travel choice programmes; and ensuring exemptions and concessions are in place for certain groups such as blue badge holders and emergency vehicles. Further details are set out in OBC 17 (CAF Scheme Proposal).

More detailed implementation information will be developed as part of the process of producing the Full Business Case which is required to be submitted to JAQU in February 2020. Further consultation will take place in relation to the detail of the implementation of the preferred option. The Council will be coming forward with plan for a series of stakeholder activity which will be informed in part by the detailed outcomes of the consultation.

**Cabinet Member / Officer Recommendations:**

That Cabinet:

1. Note the results from the public consultation on Traffic Clean Air Zone options and Equalities impact assessment;
2. Approve the outline business case for submission to Joint Air Quality Commission (JAQU) by the 6th November 2019;
3. Authorise officers to progress with producing a Full Business Case for the option approved by Cabinet;
4. Approve the necessary resources, as set out in Appendix G, required to deliver the Full Business Case to be brought to Cabinet in February 2020.

**Corporate Strategy alignment:**

The Corporate Strategy 2018-2023 commits the City Council to: “Keep Bristol on course to be run entirely on clean energy by 2050 whilst improving our environment to ensure people enjoy cleaner air, cleaner streets and access to parks and green spaces.”

This project also supports the Council’s vision; “we play a leading role in driving a city of hope and aspiration where everyone can share in its success…..We are committed to building a better Bristol that includes everyone in the city’s success. We are here to take care of the economic, social and environmental wellbeing of Bristol alongside many other local, regional and national organisations”.

Version May 2019
City Benefits:
This proposal will improve public health by achieving legal nitrogen dioxide objectives and reducing particulate pollution in accordance with the Clean Air Plan.

Consultation Details:
- Public and partner consultation – a public consultation programme was run from 1st July to 12th August 2019. In total 5,034 consultation responses were received.
- Scrutiny – Bristol’s Clean Air plan was an agenda item at 17th July 2019, and is scheduled for 30th October 2019 Scrutiny meeting. In addition information briefings have been held for Scrutiny Members to support the scrutiny activity.
- Further information and analysis is contained in the consultation report (OBC 37).

Background Documents

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<th>Revenue Cost</th>
<th>£net nil</th>
<th>Source of Revenue Funding</th>
<th>Income to offset cost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Cost</td>
<td>£113m</td>
<td>Source of Capital Funding</td>
<td>JAQU</td>
</tr>
<tr>
<td>One off cost</td>
<td></td>
<td>Ongoing cost</td>
<td>Saving Proposal</td>
</tr>
</tbody>
</table>

Required information to be completed by Financial/Legal/ICT/ HR partners:

Finance Advice

1. Bristol Clean Air Plan is BCC response to the central government 2017 directives for LA’s to produce a Clean Plan in response to the Nitrogen Dioxide (air quality) concerns. BCC after various modelling has identified a route to addressing the air quality levels that meets the legal tests. A hybrid option which charges a range of non-compliant vehicles buses, coaches, taxis, private hire vehicles, HGVs and LGVs (does not include cars), plus a small area diesel car ban. A benchmark option was also modelled.

2. Implementation of the Hybrid option is dependent on secondary legislation being enacted by government, which presents its own risks of deliverability, as a result future due diligence may be required.

3. Both options will consist of implementation (capital) costs as well as operational (Revenue) costs. The general principle is that the Implementation costs are being funded by Defra/DFT – Joint Air Quality Unit (JAQU) subject to their test for reasonableness, likewise it is assumed that BCC will fund operational costs from revenue generated via charging (with the exception of the implementation year, which is expected to be funded from the Implementation fund).

4. Capital expenditure. The capital expenditure costs have been broken down into 3 broad headings (Quantified risk assessment has also been added):
   a. Enforcement systems
   b. Street Works
   c. Non-charging measures
5. Revenue/Operational expenditure. The operational costs are split into costs associated with delivering the charging scheme, and those necessary to manage the non-compliance to the CAZ regulations.

6. Various assumptions have been made in estimating the costs of both implementing the scheme as well as operating it, amongst which are the following:
   i. Appraisal period is 10 years
   ii. Risk & contingency allowance applied to all costs
   iii. Annual inflation on revenue expenditure set at an average of 3%, Capex 3.5% uplift on 2019 prices.
   iv. Assumed non-compliant vehicle driving into the zone in year 1 is 833,000 vehicles (split across LGV, HGV, and Buses) – Hybrid option
   v. 92% pay the charge
   vi. 8% do not pay the charge, issued PCN in addition to charge.

7. Funding:- There are 4 main sources of funding for the CAZ:
   a. Capital expenditure:
      i. Early measures fund
      ii. Implementation fund
      iii. Clean air fund
   b. Revenue expenditure:
      i. Implementation Fund – First year only
      ii. Early measures fund
      iii. CAZ charges
      iv. CAZ fine – PCN

8. It is important to note that the assumptions used for modelling the OBC are still undergoing a lot of updating and stress testing. Further due diligence is required to ensure that the trends being modelled by our design consultants reflect the trends applicable in Bristol.

9. Areas that need further work (as historical data is old, and needs updating):
   a. Baseline data for compliant & non-compliant vehicles
   b. Growth Assumptions applied to compliant & non-compliant vehicles as at 2020
   c. Impact of Primary behavioural response rate

10. Due to the tight deadlines, the costs analysis applied for the OBC stage are initial estimates and a lot of due diligence is still required, and will be carried out ahead of the FBC submission. As a result, no further work is required ahead of the submission of the FBC.

11. Table 1 & Table 2 below summaries the estimated capital expenditure & revenue expenditure costs respectively (both include assumed inflation at 3.5% & 3% respectively)

   Table 1 – Estimated Capital expenditure (Due diligence & validation still required)
Table 2 – Estimated Revenue expenditure (Due diligence & validation still required)

<table>
<thead>
<tr>
<th>CAPEX Item</th>
<th>Implementation Fund</th>
<th>Clean Air Fund</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforcement System</td>
<td>10,527,100</td>
<td>0</td>
<td>10,527,100</td>
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<td>Street Works</td>
<td>8,232,275</td>
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<td>Non-Charging Measures - Implementation Fund</td>
<td>43,815,000</td>
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<td>Non-Charging Measures - Clean Air Fund</td>
<td>0</td>
<td>44,390,000</td>
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<tr>
<td>CRA (PBO)</td>
<td>6,500,000</td>
<td>0</td>
<td>6,500,000</td>
</tr>
<tr>
<td>Total</td>
<td>69,679,375</td>
<td>44,390,000</td>
<td>113,469,375</td>
</tr>
</tbody>
</table>

12. CAPEX costs are estimated at £113m and include direct implementation costs as well as other necessary interventions to ensure the Plan delivers to target in the shortest possible time. While some of the intervention has been outlined, further work is progressing ahead of the FBC to ensure the model fully embeds the various interventions that have been identified by BCC and its One City stakeholders.

13. The estimated OPEX costs is £10.1m in the fully year of operation (after allowing for reinvestment of reserves). While the Revenue appears high at this OBC stage, further due diligence is being carried out to validate the assumptions around trends and non-compliance. Pending the results of that work, it is assumed that any surplus will be reinvested to ensure compliance is achieved in the earliest possible time.

14. The financial modelling assumes a significant level of fee paying vehicles entering the zone. Further work is required to validate the trends used and what is appropriate for Bristol given this scheme is one of the first of its kind. Historical examples like the London Congestion Charge had a significant impact on traffic flows and volume of vehicles entering the zone, also schemes like the Dartford crossing toll could have some valuable lessons for this scheme. Recent introductions of the CAZ scheme in other city can also have some valuable lessons for Bristol and all these need to be examined in more detail. It is anticipated that this will form part of the FBC submission in 2020.

15. Cabinet approval is requested for the following:
   a. Approval to submit the OBC to JAQU with a high-level view of the Economic & Finance Case which requires further development.
b. Approval to progress to the development of an FBC for the implementation of the Hybrid option as outlined in the OBC.

Note that further refinement work, due diligence and validation is required of the modelling work that has been produced as part of the OBC and this will impact on the final business case presented and is likely to have a significant impact on the Revenue and expenditure that the scheme will require, both for implementation as well as ongoing operations.

The S151 Officer will be writing a letter to accompany the OBC submission to JAQU.

Finance Business Partner:

2. Legal Advice: In July 2017 the Government made a formal Direction under the Environment Act 1995 (Feasibility for study of Nitrogen Dioxide Compliance Air Quality Direction2017) the Government directed Bristol City Council (along with other local council’s) to undertake a feasibility study and identify options to deliver compliance with the legal limits for nitrogen dioxide in the shortest possible time. Under that direction a preferred option was to be identified by December 2018. Revisions were made to this time table that would see a Full Business Case (“FBC”) submitted to the Government by December 2019.

By a Direction issued by the Government on the 23rd July (the “Direction”) this timetable was further revised and by a letter from the Minister dated the 26th September it was accepted that an OBC should be submitted by 6th November 2019, with FBC to be submitted by February 2020. It is anticipated that this timetable will not impact on implementation in March 2021. The letter also made it clear that in the light of the good co-operation and co-ordination between the Council and JAQU the Minister expected the Council to keep the pace up and adhere to this programme.

Between the 1st July and 12th August the Council undertook a public consultation in respect of 2 possible options for a Clean Air Zone. The responses are detailed in this report and that consultation together with the design work and further technical analysis modelling has enabled officers to identify 2 further options that reach compliance in the shortest time.

In relation to which option should be put forward as the preferred options, this has to be the one that complies with the legal tests:-

1. It should aim to achieve compliance with legal limits as soon as possible
2. It reduce human exposure as quickly as possible
3. Compliance is not just possible but likely.

The hybrid option detailed in the report has been identified as an option which meets these tests and is the preferred option of the Council. If this option progresses it is acknowledged that Bristol is the first authority that would be bringing that option forward and with that come certain legislative requirements that would require strong support from the Department of Transport and the DEFRA.

The government will need to enact secondary legislation to make the hybrid option viable. If the Government decides not to do so, then the Council would need to consider an alternative option, including the benchmark option and implement the option that meets the legal tests, as under the terms of the July 2019 Direction it will not be possible to fail to progress an option for adoption and implementation.

Decision makers should also be aware that it has been established through litigated cases that the Council cannot decide to adopt the most effective pollution reduction measure on economic or political grounds. An option which best satisfies the legal tests must be adopted. Any potential or assessed adverse economic impacts can be considered
as part of the mitigation measures adopted with the chosen scheme.

Consultation

Consultation should;

- Occur when proposals are at a formative stage;
- Give sufficient reasons for any proposal to permit intelligent consideration;
- Allow adequate time for consideration and response;
- There must be clear evidence that the decision maker has considered the consultation responses, or a summary of them, before taking its decision.

The Public Sector Equality duty

This requires the decision maker to consider the need to promote equality for persons with “protected characteristics” and to have due regard to the need to i) eliminate discrimination, harassment, and victimisation; ii) advance equality of opportunity; and iii) foster good relations between persons who share a relevant protected characteristic and those who do not share it.

The Equalities Impact Assessment is designed to assess whether there are any barriers in place that may prevent people with a protected characteristic using a service or benefiting from a policy. Cabinet must take into consideration the information in the assessment before taking the decision.

Legal Team Leader: Joanne Mansfield, Team Leader, Planning, Property, Regulatory - 25th October 2019

3. Implications on IT: The Council will need to consider data storage, information management and put processes in place to ensure data from network is utilised appropriately. Alongside this is the issue the Council will need explore appropriate long term solutions for the camera network needed to enforce the Clean Air Zone and consider the associated longer-term cyber-security risks.

IT Team Leader: Simon Oliver, Director – Digital Transformation, 14th October 2019

4. HR Advice: The options being considered could result in significant disruption to services that are reliant on employees using vehicles, particularly in the People and Growth and Regeneration directorates. There could be additional disruption in the short-term whilst office-based employees make alternative travel arrangements to travel to work at City Hall or 100 Temple Street. The Council will need to consider these challenges and how the impact can be mitigated on employees.

HR Partner: James Brereton, HR Advisor, 21st October 2019

EDM Sign-off Mike Jackson 28th October 2019
Cabinet Member sign-off Mayor Marvin Rees 28th October 2019
For Key Decisions - Mayor’s Office sign-off 28th October 2019

The Outline Business Case forms the appendices to this report. Highlighted below are key documents for ease of reference. Please note these documents are set out in the required templates by JAQU. Please note that a watermark stating draft is on most papers and will remain so until such time as the Cabinet Decision is made and the documents are submitted to JAQU.

| Appendix OBC 2 – Executive Summary – Further essential background / detail on the proposal | YES |
| Appendix OBC 37 – Details of consultation carried out - internal and external | YES |
| Appendix OBC 35 – Risk assessment (template available by following the link on the Decision Pathway page on The Source) | YES |
### Appendix OBC 42 – Equalities screening / impact assessment of proposal

| YES |

### Appendix OBC21 – Eco-impact screening/ impact assessment of proposal

| YES |

### Appendix OBC 7 – Financial Case *(Financial officer must be the author of the advice)*

| YES |

### Appendix OBC 8 – Management Case *(Legal Services must be the author of the advice)*

| YES |

### Appendix I – Exempt Information *(Legal Services must confirm that information is to be exempt in accordance with the constitution)*

Exempt on the basis of schedule 12a(3) of the Local Government Action 1972 – information relating to the financial or business affairs of any particular person (including the authority holding that information).

| YES |

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Please note at the time of publication the documents: OBC 34 (Project Plan) and OBC 29a (detailed economic modelling) are to follow due to formatting complications. This will be published shortly. In the interim please contact Democratic.Services@bristol.gov.uk who will provide these on request. These documents will also be emailed directly to members of Scrutiny.

Appendix A1 is a document list that sets out the documents that form part of the OBC. Please note that this not all documents are relevant to Bristol’s OBC as this numbering is used nationally by JAQU.