



Bath Clean Air Plan

Bath and North East Somerset Council

Proposed System Design Features and Payment Exemptions

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Contents

Acronyms and Abbreviations	3
1. Introduction.....	4
2. System Design Features	5
2.1 Overview	5
2.2 System Design Features – Recommended for Inclusion.....	5
2.3 System Design Features – Under Consideration	7
2.4 System Design Features – Recommended for Omission	7
3. Payment Exemptions/Concessions	8
3.1 Payment Exemptions Applicable for a CAZ C and D Scheme – Recommended for Inclusion.....	8
3.2 Payment Exemptions Applicable for a CAZ C Scheme only – Recommended for Inclusion.....	9
3.3 Payment Concessions Applicable for a CAZ C or D Scheme – Recommended for Inclusion.....	9
3.4 Payment Exemptions/Concessions – To be Omitted	10
4. Summary & Conclusions.....	14

Appendix A. List of Exemptions and Concessions Under a CAZ C Scheme

Appendix B. List of Exemptions and Concessions under a CAZ D

Acronyms and Abbreviations

ANPR	Automatic Number Plate Recognition
AQMA	Air Quality Management Area
B&NES	Bath and North East Somerset Council
CAP	Clean Air Plan
CAZ	Clean Air Zone
CSF	Critical Success Factor
Defra	Department for Environment, Food & Rural Affairs
DfT	Department for Transport
HGV	Heavy Goods Vehicle
JAQU	Joint Air Quality Unit
LEZ	Low Emission Zone
NHS	National Health Service
OBC	Outline Business Case
PCN	Penalty Charge Notice
RPZ	Resident's Parking Zone
STGO	Special Types General Order
SOC	Strategic Outline Case
TfL	Transport for London
VRM	Vehicle Registration Mark

1. Introduction

Poor air quality is the largest known environmental risk to public health in the UK¹. Investing in cleaner air and doing more to tackle air pollution are priorities for the EU and UK governments, 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 wider B&NES, since 2002. Despite this, Bath has ongoing exceedances of the legal limits for Nitrogen Dioxide (NO₂) and these are predicted to continue until 2025 without intervention.

In 2017 the government published a UK Air Quality Plan for Nitrogen Dioxide² setting out how compliance with the EU Limit Value for annual mean NO₂ will be reached across the UK in the shortest possible time. Due to forecast air quality exceedances, B&NES, along with 27 other Local Authorities, was directed by Minister Therese Coffey (Defra) and Minister Jesse Norman (DfT) in 2017 to produce a Clean Air Plan (CAP). The Plan must set out how B&NES will achieve sufficient air quality improvements in the shortest possible time. In line with Government guidance, B&NES is considering implementation of a Clean Air Zone (CAZ), including both charging and non-charging measures, in order to achieve sufficient improvement in air quality and public health.

Jacobs has been commissioned by B&NES to produce an Outline Business Case (OBC) for the delivery of the CAP; a package of measures which will bring about compliance with the Limit Value for annual mean NO₂ in the shortest time possible in Bath. The OBC assesses the shortlist of options set out in the Strategic Outline Case³, and proposes two options including details of delivery. The OBC forms a bid to central government for funding to implement the CAP.

The two options under consideration for the CAP are a Class C CAZ with traffic management and a Class D CAZ. Some of the exemptions and concessions are not applicable for a Class C CAZ scheme, as cars (with the exception of taxis/PHVs) would be exempt. It has been indicated throughout the report which of the two options each of the exemptions and concession would apply to.

This document is written to support the OBC and identifies proposed system features and charging strategies for all vehicle types, including national exemptions and local exemptions and concessions, which could apply within a Clean Air Zone (CAZ) in Bath. The national exemptions are laid down in the Government's Clean Air Framework and would apply irrespective of whichever of the 3 shortlisted options were implemented, details of which can be found in 'Bath & North East Somerset Council Clean Air Plan: Strategic Outline Case' (28th March 2018)⁴.

Proposed charging measures have been determined based upon detailed modelling undertaken and discussions with council technical officers. The charging regime and system design are interlinked because the system must facilitate the requirements of any charging or exemptions/concessions which apply.

This report has been divided into 2 sections; system design and vehicle exemptions/concessions. Within these sections each issue under consideration has been provisionally identified, through discussions with B&NES officers, for either;

- a) Definite inclusion in the final scheme,
- b) Under consideration for use in the final scheme,
- c) Definite omission from the final scheme.

The rationale for decisions including supporting evidence where available, has been provided to show how these recommendations were determined. It is important to note that in order to comply with the legal direction from the Government, B&NES can only offer local exemptions/concessions in the form of discounts and/or sunset periods, where they do not alter the year in which compliance can be achieved.

¹ Public Health England (2014) Estimating local mortality burdens associated with particular air pollution.
<https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution>

² <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017>

³ Bath and North East Somerset Council Clean Air Plan: Strategic Outline Case, March 2018

⁴ http://www.bathnes.gov.uk/sites/default/files/siteimages/Environment/Pollution/strategic_outline_case_bath_28.03.2018_with_anexes.pdf

⁴ Bath and North East Somerset Council Clean Air Plan: Strategic Outline Case

2. System Design Features

2.1 Overview

A back-office system will be required for a CAZ; this system will be required to process vehicle registration marks (VRMs) passed to it from on street Automatic Number Plate Registration (ANPR) cameras. Should vehicles enter the zone, drivers will be required to pay if their vehicle has high emission levels, which exceed the relevant Euro standard permitted by the zone. Drivers either pay the appropriate tariff through a payment collection system or alternatively do not pay within the required timeframe; which will instigate the issuing of a Penalty Charge Notice (PCN), with appropriate fines to be paid. A back-office system will therefore be required to undertake and facilitate several processes, potentially involving large amounts of data.

2.2 System Design Features – Recommended for Inclusion

The design features set out in this section are proposed to be included in the design of the scheme.

2.2.1 Use of B&NES existing local payment system

B&NES currently operates a system for car parking and bus lane enforcement, which issues PCN's. This system could similarly apply to a clean air zone scheme in Bath. It is the preference of officers to utilise, via expansion or other means, the existing system, due to synergies of operation and knowledge of the system by internal staff.

Benefits would include:

- Officers enabled to cross-check all types of PCN issued by B&NES including any non-payments.
- Officers can undertake historical data analysis/trend analysis more readily.
- Integration with local enforcement staff devices regarding lack of PCN payment.
- Future integration would be possible with any Joint Air Quality Unit (JAQU) system.

Discussions are ongoing regarding the design and functionality of the central government system and B&NES has concerns regarding timescales for delivery of this system combined with the requirement they face to deliver a CAZ in the shortest timeframe possible.

2.2.2 24/7 operation with daily (24hr) charge operating midnight-to-midnight

B&NES and Jacobs have explored options regarding times of operation. It was ultimately preferred to operate the CAZ during the same period as the London Low Emission Zone (LEZ). This would charge high emission vehicles driving in the zone between midnight and midnight each day. Advantages of this particular approach include:

- Maximises behaviour change in response to the scheme by capturing all trips, therefore, affecting every journey carried out in a high emissions vehicle (peak hour operation, for example, would capture mostly commuting/school trips and exclude other trips).
- Simplified operation of the CAZ system including required processing, as there would be no time constraints to consider.
- Clearer to the public on signage and advertising when they are liable to be charged.
- Charge applies each day the vehicle is detected moving within or through the CAZ.
- Midnight-to-midnight period means there is no ambiguity and drivers will therefore be less likely to overstay.
- An informal 15-minute grace period at the start of each day (00:00-00:15) would be provided, should users slightly overstay, ensuring fairness to users. This would also reduce potential challenges to PCNs issued based upon time-stamped clock accuracy.

2.2.3 Use of an account-based system

This would work similar to the current “pay by mobile” solution for parking where each user will have a registered account against which payment can be made on a daily basis:

- Daily payment:
 - Easy to establish, making it clear that a driver would be charged for each day they enter the CAZ and any additional days would incur an additional charge.
 - Encourage users to pre-pay for entry, up to 28 days before the day of travel. They could also pay on the day of travel or alternatively up to midnight the following day.
 - Users must log in every time they enter the CAZ to register a payment.
- Cash payment:
 - Approximately 2,000 residents in B&NES do not have a bank account, so a mechanism is required to enable them to pay.
 - Potential to use ‘Payzone’ locations inside the CAZ. Also, the ‘one stop shop’ within Lewis House, Manvers Street, Bath could also be used during office hours.

2.2.4 ANPR cameras

ANPR cameras would be placed at all zone entry and exit locations. In addition, a limited number of:

- Internal cameras will be included at key locations within the zone e.g. Podium Car Park, Bath Spa Station and Sainsbury’s.
- Mobile enforcement would also take place on a short-term basis if significant numbers of vehicles are believed to be driving within the zone and not crossing the boundary.

This methodology is the most cost-effective approach. Furthermore, use of occasional internal cameras would provide B&NES with useful information on how often vehicles are used within the CAZ without leaving as well as identifying popular transit routes through the CAZ.

2.2.5 Charge for travel within the zone

Due to the limited size of the proposed Bath zone, anticipated results as well as issues involved with infrastructure installation, it is proposed to predominantly enforce the zone boundary only. However, the following would also apply:

- Targeted capture of key routes within the zone using mobile and strategically placed cameras to capture drivers who stay in the zone for several days making multiple trips.
- Drivers already within the zone upon its implementation could drive an uncompliant vehicle around, providing they did not leave the zone, without being charged for doing so. The use of mobile and a limited number of additional cameras would deter this. The number of trips expected to do this is minimal.

2.2.6 Zone boundary

The zone boundary has undergone a process of refinement based upon several considerations and prior engagement. It now:

- Includes individual property boundaries rather than highway boundary (previous) so properties are now either in or out of the CAZ. This especially takes account of vehicular accesses to/from properties and/or businesses.
- Ensures signage and cameras can be accommodated on each entry/exit point of the zone boundary. Warning signs are also provided at key locations on current HGV routes.
- Matches B&NES existing Residential Parking Zones (RPZ’s) in more locations, see 2.2.7.

- Considers existing HGV routes within Bath and how they may change due to implementing a CAZ. The scheme would offer places to facilitate easy turning manoeuvres for HGVs at the zone boundary to avoid unwanted entry into the CAZ.
- Avoids any potential confusion and future challenge with B&NES existing enforcement restrictions e.g. 10am-6pm bus gate.
- Includes most long-term car parks in central Bath, and a large proportion of central on-street parking.
- Reduces the potential for significant residential street rat-running around the boundary edge.

2.2.7 Matching the existing B&NES Residential Parking Zones (RPZs)

Some discussions have been conducted in relation to how the CAZ boundary interacts with the existing B&NES RPZs. The advantages of matching the CAZ boundary to the existing RPZs are:

- Eliminates parking issues where an RPZ would be partially outside the CAZ boundary, possibly making some spaces in that RPZ more desirable.
- Reduces the potential for undesirable parking in residential areas on the edge of the CAZ.
- Easier to implement an exemption or discount for a person living inside the CAZ.

To fully align the CAZ and the RPZ boundaries would require a comprehensive re-arrangement of a number of RPZs. This would be better done as part of a wider strategic review of the whole RPZ system, which would require a separate consultation and could not be accommodated within the timescales of this project. There is also a question about whether this is desirable: it is likely that both the RPZ and CAZ boundaries will change over time and whilst there may be some benefits in aligning them, there may equally be benefits in accepting that they are independent and are free to change.

2.3 System Design Features – Under Consideration

The items set out in this section are subject to further discussion, before deciding their status in relation to the system.

2.3.1 Data sharing into a separate B&NES journey time engine

This could provide useful information on journeys made within the CAZ to inform network operations and future B&NES projects. This requires further work as use of the data generated for this purpose may have GDPR implications.

2.4 System Design Features – Recommended for Omission

The features discussed in this section are not proposed for inclusion within the CAZ system.

2.4.1 Geo-fencing for hybrid vehicles to offer a discount or enforce use of electric power within CAZ

Geo-fencing is not recommended for inclusion in the CAZ for the following reasons:

- Geo-fencing is not required to detect vehicles as there are ANPR cameras on entry and exit of the CAZ.
- No known commercially available system capable of receiving data from a hybrid vehicle and checking it against a database to see if it is eligible for a discount or exemption.
- Potential for fraudulent activity where the geo-referencing system could be fitted to another non-hybrid vehicle.
- Not all hybrid vehicles allow the driver to actively control whether the electric or petrol/diesel engine is operating.

3. Payment Exemptions/Concessions

3.1 Payment Exemptions Applicable for a CAZ C and D Scheme – Recommended for Inclusion

The payment exemptions set out in this section are proposed to be included in the design of a CAZ C and D scheme.

3.1.1 National Exemptions within the Department for Environment, Food & Rural Affairs (Defra) CAZ Framework

The following vehicles are exempted within Defra's CAZ framework and therefore, exempt within the Bath CAZ scheme:

- Euro 4+ petrol vehicles
- Euro 6+ diesel vehicles
- Historic vehicles in the Exempt Vehicles tax class
- Disabled passenger vehicles (in the Exempt Vehicles tax class)
- Military vehicles by virtue of Section 349 of the Armed Forces Act 2006
- Ultra-Low Emission Vehicles (fully electric and hydrogen fuel cell)

3.1.2 Local Exemptions Based on Tax Class

The following vehicles will be granted a local exemption providing they are registered under the relevant tax class on the day they enter the CAZ. For further information on tax classes see 'Information leaflet on tax classes for vehicles' (V355/1)⁵:

- Gas (LPG/CNG) or hybrid electric vehicles in the Alternative Fuel Car Vehicle tax class
- Vehicles in the Special Concessionary tax class not already exempt under the CAZ Framework including agricultural machines, mowing machines, electric, gritter, snowplough and steam vehicles.
- Vehicle in the Motorcycle tax class not already exempt under the CAZ Framework.
- Other vehicles in the Exempt Vehicles tax class not already exempt under the CAZ Framework including:
 - 'limited use' vehicles;
 - vehicles used by a disabled person (disabled tax class); and
 - National Health Service vehicles.

3.1.3 Security Services, Diplomatic and Military Vehicles

As with the TfL congestion charge, security service, diplomatic and military vehicles will be exempted by whitelisting certain VRMs where not exempted elsewhere. Some VRMs may not be included for security reasons or being outside the local authority area, however, vehicles can be identified upon reviewing ANPR footage and exempted.

⁵ Driver and Vehicle Licensing Agency - Information leaflet on tax classes for vehicles (V355/1)

3.2 Payment Exemptions Applicable for a CAZ C Scheme only – Recommended for Inclusion

In addition to the exemptions listed in Section 3.1 of this report, under Defra's CAZ framework and therefore, exempt within the CAZ C scheme, all cars (except taxis/PHVs) are exempt.

3.3 Payment Concessions Applicable for a CAZ C or D Scheme – Recommended for Inclusion

The payment concessions set out in this section are recommended for inclusion in relation to a CAZ C or D scheme. In order to comply with the legal direction from the Government, B&NES can only offer concessions in the form of discounts and/or sunset periods where they do not alter the year in which compliance can be achieved. Any concessions offered are likely to be for a limited period of time only.

3.3.1 Local Concessions Based on Tax Class

The following vehicles will be granted a local concession until 1/1/2025 providing they are registered under the relevant tax class on the day they enter the CAZ:

- Recovery Vehicles:
 - A recovery vehicle or breakdown truck with a revenue weight exceeding 3,500kg.
 - Doesn't include breakdown vans (e.g. AA, RAC).
- Emergency Vehicles:
 - Ambulance.
 - Fire Engine and Fire Service.
 - Mine Rescue.
 - Lifeboat Haulage and Lighthouse Authority Vehicles.
 - Police Vehicles.

It is standard practice to "whitelist" emergency service vehicles from ANPR-based enforcement. This policy would also align with other traffic enforcement within B&NES, from which emergency services are exempt.

This concession is subject to a Memorandum of Understanding with the Police, Ambulance and Fire Services that they will undertake to station compliant vehicles in/near the CAZ. This can be found in OBC-46 'Memorandum of Understanding for Emergency Services' in Appendix V of this OBC.

- Special Vehicles tax class which includes mobile crane, mobile pump, digging machine, works truck, road roller, showman's HGV and showman's haulage.
- Special Types tax class vehicles which have been issued with a Special Types General Order (STGO) or an individual order and are used to carry or haul exceptional loads.
- General Haulage Vehicle tax class, where the vehicles are constructed and used solely for haulage.

It is possible to identify and sort DVLA data using Tax Classes, and therefore it is possible for VRMs to be exempted using their tax class.

3.3.2 Wheelchair Accessible Vehicles (WAVs) used as Taxis

There are currently only 18 WAV taxis operating in B&NES, all but one of which are Euro 4 or higher. It is imperative to maintain access opportunities for disabled people who do not own, or cannot drive, their own vehicle. Therefore, Euro 4/5 taxi and private hire vehicles could be offered an additional concession to 1 January 2023, if they are wheelchair accessible.

3.3.3 Community Transport Providers

There is already a national exemption for disabled passenger vehicles however community transport providers use a wide range of other vehicles to provide their services. This is particularly relevant to the volunteer car schemes. An additional concession to 1/1/2023 is therefore under consideration for registered community transport providers using Euro 4/5 diesel vehicles for work purposes not subject to an exemption or concession elsewhere. It is likely that the concession will operate with a view to ensuring that the trip is work-related.

3.3.4 Euro 4/5 Diesel Commercial Vehicles Subject to a Failed Loan Application

For businesses that own non-compliant diesel vehicles (buses, coaches, HGVs, LGV/vans and taxis/PHVs), an interest free loan scheme is proposed to allow them to upgrade or retrofit their vehicle to a compliant Euro-6 diesel vehicle. In the event that an applicant is unable to obtain finance then, provided that the existing vehicle is a Euro 4 or 5 diesel vehicle, it will be provided with a limited concession to 1/1/2023.

3.3.5 Blue Badge Holders

Euro 4/5 diesel vehicles used by Blue Badge holders could be offered a concession to 1 January 2023, accounting for the following points:

- Approximately 7,800 blue badges are issued in B&NES and more badge holders are expected to visit from the surrounding authorities. It is expected that most blue badge holders in the surrounding area would drive into Bath, rather than using other modes of transport
- It is possible that blue badge holders have a higher than average proportion from lower socio-economic groups, which would lessen their ability to upgrade vehicles in the short term
- Blue badge holders may find it difficult to switch to another mode of transport instead of the car
- To enforce such a concession, blue badge holders would be required to pre-register their blue badge against a specific VRM. This vehicle would then be exempt from CAZ charging when it enters the zone. It would have potential to be open to abuse as the disabled person may not be in the registered vehicle, which would be very difficult to prove

Further research is required into the socio-economic group of blue badge holders in the B&NES area, to decide if any concession is provided.

3.3.6 Health and Care Providers

A local exemption is already proposed for National Health Service vehicles and a local concession to 1/1/2025 is already proposed for Emergency Vehicles. However, a further concession to 1/1/2023 is under consideration for registered healthcare providers providing community health and social care services within the proposed zone and health and employee social care practitioners including practice and district nurses, health visitors, physiotherapists, occupational therapists, speech and language therapists, podiatrists and other specialist service professionals using Euro 4/5 diesel vehicles, for work purposes, that are not subject to an exemption or concession elsewhere. The decision on this concession is dependent upon a better understanding of the fleet and discussions are ongoing with representatives from the local NHS and Clinical Commissioning Group.

3.4 Payment Exemptions/Concessions – To be Omitted

The payment exemptions/concessions set out in this section are not proposed to be included in a CAZ scheme.

3.4.1 Council Vehicles

Council vehicles would not receive any exemption due to the implications of putting stringent regulations on the public, whilst exempting the Council from these regulations. However:

- Key parts of the council fleet are already 90% compliant and all new contracts stipulate compliant vehicles must be used so exemptions are not required or justified in any case.

- Council staff would not receive any exemption and therefore may require reimbursement from using their own vehicles on council business within the CAZ.

3.4.2 Contractors undertaking statutory duties

B&NES has several contractors that undergo statutory duties and as a result exempting all contractors would have the effect of exempting a substantial proportion of the LGV fleet on the roads in Bath. Therefore, offering an exemption would not improve air quality, so it is not proposed. Furthermore:

- This group incorporates a large number of national companies who have the ability to adjust vehicle fleets to enable compliance.
- Contractors could rearrange/schedule work more efficiently to take less trips into the CAZ.
- Contractors undertaking statutory duties are likely to also use the same vehicles for non-statutory business.

However, there remains a need to confirm the impact on existing B&NES contracts and whether there are any financial implications for the Council from charging these vehicles to enter the CAZ.

3.4.3 Low Income Households

To assist low income households with responding to the CAZ, a concession would not be offered as this would be against the rationale for introducing a CAZ. However, a financial assistance scheme is proposed, whereby a £2,000 grant will be provided to enable residents and those who work within the CAZ to upgrade their non-compliant pre-Euro 4 petrol or diesel car to a compliant car. Applications from low income households will be prioritised.

3.4.4 Local Businesses Impacted by the CAZ

This includes businesses who will fall inside the CAZ boundary and those who regularly enter the CAZ area to conduct their business. A financial assistance scheme is proposed to help these businesses, whereby an interest-free loan will be provided to enable businesses to upgrade their non-compliant pre-Euro 6 commercial vehicles to compliant vehicles. In the event that an applicant is unable to obtain finance then, provided that the existing vehicle is a Euro 4 or 5 diesel vehicle, it will be provided with a limited concession to 1/1/2023.

3.4.5 Residents within the CAZ

The decision with regards to exempting or charging residents within the CAZ is likely to have a large impact on air quality, as every trip made will at some point be within the CAZ boundary. Furthermore, residents within the CAZ are both closest to the city centre and have the most travel choices. Therefore, the current decision is to offer them no exemptions. However, a financial assistance scheme is proposed, whereby a £2,000 grant will be provided to enable residents and those who work within the CAZ to upgrade their non-compliant pre-Euro 4 petrol or diesel car to a compliant car.

3.4.6 Residents within RPZs intersected by the CAZ boundary

As can be seen in Figure 1, Residents Parking Zones (RPZs) 5 and 15 are currently intersected by the CAZ boundary and hence it is possible that some areas of the RPZ will be favoured over the other as residents try to avoid the CAZ charge. Analysis of the VRMs of residents within these two zones identified that approximately 45% of the residents who have parking permits in both zones currently own uncompliant vehicles. This equates to approximately 108 vehicles in zone 5, and 130 vehicles in zone 15. Whilst there will be some natural improvement of this fleet before the CAZ is implemented, it is anticipated that enough vehicles would still remain uncompliant to cause some disruption to parking within these zones.

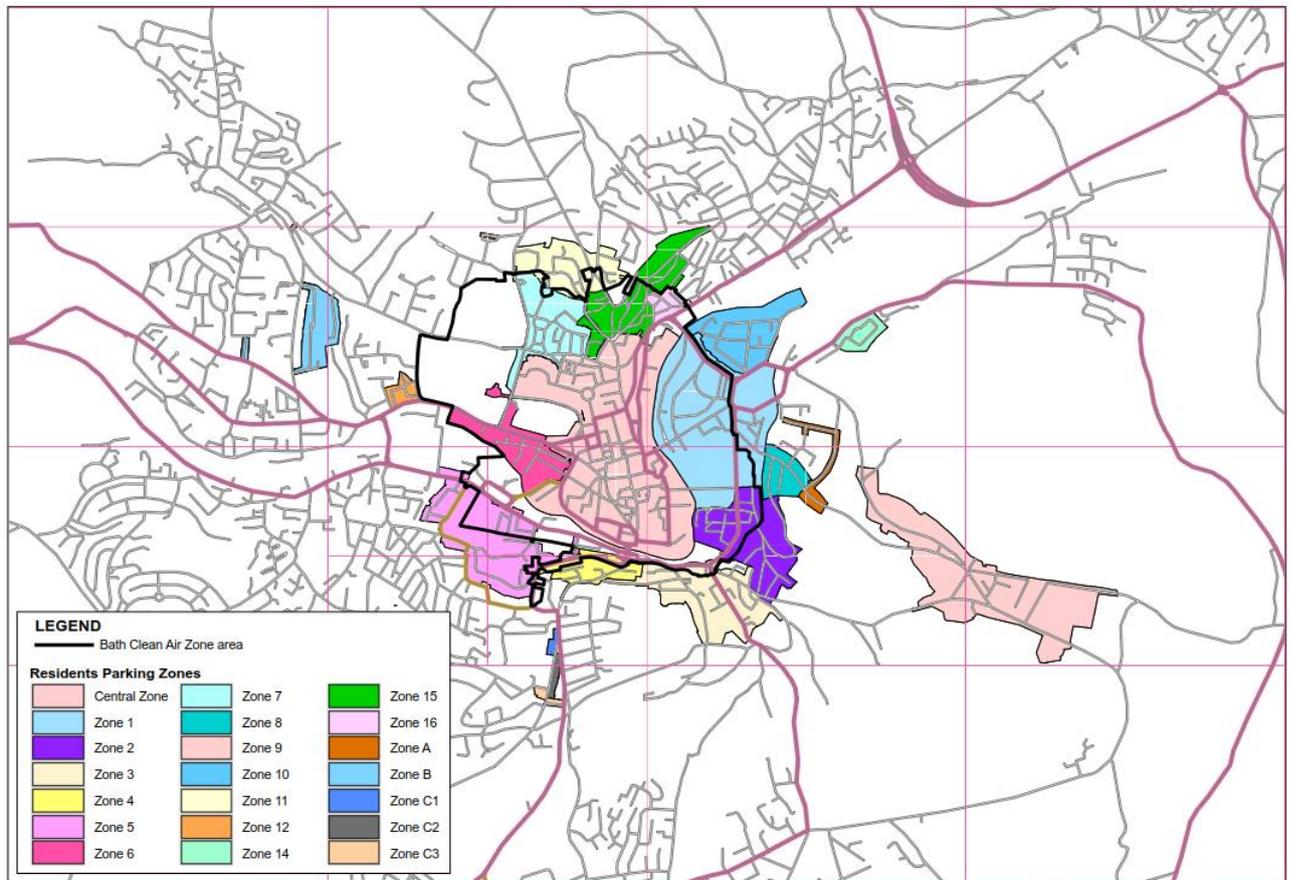


Figure 1. Bath CAZ boundary overlaid onto a map of the Resident Parking Zone (RPZ) boundaries

However, it is not considered practical to increase the zone boundary to encompass these zones entirely, and a general review of the entire RPZ system is anticipated to happen imminently as part of the ongoing Parking Strategy work. Consideration has been given to providing an exemption for affected residents, but the impact of this on compliance could be too great to meet B&NES legal obligations, particularly given the location of these RPZs close to ongoing air quality exceedances. Conversely, not offering any exemptions would encourage a change in behaviour that would be beneficial for air quality. Therefore, the CAZ boundary will remain in place intersecting both RPZ 5 and RPZ 15.

However, a financial assistance scheme is proposed, whereby a £2,000 grant will be provided to enable residents and those who work within the CAZ to upgrade their non-compliant pre-Euro 4 petrol or diesel car to a compliant car.

3.4.7 Buses, Coaches and Minibuses

Approximately 113 coaches and minibuses operate within B&NES undertaking trips associated with schools. This includes school runs and sports activities. Many of these vehicles are currently high polluting, and owners have limited opportunity and funds to retrofit so will likely struggle to upgrade vehicles. Following extensive discussions with local bus and coach operators the following is proposed:

- Scheduled buses are to be either upgraded to Euro 6 or replaced. There are no concessions proposed for scheduled bus services.
- No concessions are proposed for coaches and minibuses providing home to school transport or educational trips. Currently some 12 coaches provide home to school transport into the CAZ on a daily basis during term time, with an available fleet of 16 Euro 6 coaches. A financial assistance scheme is also proposed to help these businesses, whereby an interest-free loan will be provided to enable operators to upgrade their non-compliant pre-Euro 6 vehicles to compliant vehicles. In the

event that an applicant is unable to obtain finance then, provided that the existing vehicle is a Euro 4 or 5 diesel vehicle, it will be provided with a limited concession to 1/1/2023.

- No concessions are to be provided for tourist trips.

3.4.8 Inter-zonal charge for Bath and Bristol

An inter-zonal charge between Bath and Bristol could provide a discount for the use of both proposed Clean Air Zones in one calendar day. This concession was omitted because:

- It would be very difficult to implement as both Clean Air Zones will be run by their respective councils
- A discount would not be proportionate to the impact on air quality of the vehicle within each CAZ
- This would reduce the impact of the two CAZs on behaviour change in the cities, and therefore, could impact negatively on the anticipated air quality benefits.

3.4.9 NHS Staff

NHS staff were considered for exemption due to their occupation being critical to society. An allowance for night shift staff was also discussed, specifically due to the potential of travelling in the zone for one work shift spanning two 24-hour periods and therefore being subject to two days CAZ payments. However, a specific exemption or concession has been omitted due to:

- The large number of employees and staff turnover, requiring a potentially large database of relevant vehicle VRMs to be managed;
- Changing shift patterns, which would make it very difficult to exempt only night-shift workers for any given period;
- The low numbers of non-compliant trips between midnight and 6am when public transport is limited; and
- The range of other exemptions, concessions and supporting measures that are available.

4. Summary & Conclusions

B&NES and Jacobs have set out their initial recommendations with regards to system design features and payment exemptions/concessions. These decisions have been based upon technical input supplied by officers and consultants over several months, in relation to the scheme, as well as benchmarking other schemes such as London. A significant number of stakeholder engagement exercises, local group meetings and a period of public consultation have also taken place. Feedback has been collated to establish that the current recommendations are most suitable and take account of the Councils requirement to deliver a Clean Air Zone in the shortest timescales possible, whilst achieving an improvement in air quality within Bath.

Additional recommendations and amendments are expected to be made throughout the design process, as a result of:

- Further discussion and consideration from Council Officers and Councillors.
- Consultation with the public through ongoing engagement.
- Further modelling and system design work.

The final decision regarding the system features and payment exemptions/concessions will depend primarily on feedback from the processes above, principally considering the expected air quality performance and the requirement to reach the legal direction from the Government by 2021. As a result, it should be noted that B&NES can only offer exemptions or concessions in the form of discounts and/or sunset periods where they do not alter the year in which compliance can be achieved.

Appendix A. List of Exemptions and Concessions Under a CAZ C Scheme

	Vehicle Class	Exemption or Concession?
Tax Classes	The Private/Light Goods Class (PLG) Graduated Vehicle Excise Duty Vehicles registered on or after 01/04/2017	No
	Heavy Goods Vehicle Class	No
	Private HGV	No
	Special Types	Concession until 1/1/2025
	General Haulage Vehicles	Concession until 1/1/2025
	Bus	No (interest free loan scheme available)
	Motorcycle Electric Motorcycle	Exemption
	Special Vehicles Mobile Crane Mobile Pumping Vehicles Digging Machines Works Trucks Road Rollers Showman's HGV Showman's Haulage Vehicle	Concession Until 1/1/2025
	Small Island Vehicles	No
	Recovery Vehicle	Concession Until 1/1/2025
	Special Concessionary Agricultural Machine Mowing Machine Electrically Propelled Vehicle Gritter Snow Plough Steam Vehicles	Exemption
	Emergency Vehicles Ambulance Fire Engine and Fire Service Mine Rescue Lifeboat Haulage and Lighthouse Authority Vehicles Police Vehicles	Concession Until 1/1/2025
	Limited Use	Exemption
	Disabled Tax Class	Exemption
	Disabled Passenger Vehicle	Exemption
	Historic Vehicles	Exemption
	National Health Service Vehicles	Exemption

	Vehicle Type	Exemption or Concession?
User / Vehicle Type	Euro 4+ petrol vehicles	Exemption
	Euro 6+ diesel vehicles	Exemption
	Fully electric or hydrogen fuel cell vehicles	Exemption
	Security Services	Exemption
	Diplomatic Vehicles	Exemption
	Military Vehicles	Exemption
	Emergency Service Vehicles	Exemption
	Construction Machinery (Special Vehicles tax class)	Exemption
	Blue Badge Holders	Concession under consideration to 1/1/2023 for Euro 4/5 diesel
	Wheelchair Accessible Vehicles (WAVs) used as Taxis	Concession under Consideration to 1/1/2023 for Euro 4/5 diesel
	Community Transport Providers	Concession under consideration to 1/1/2023 for Euro 4/5 diesel
	Council Vehicles	No
	Contractor Vehicles Undertaking Statutory Duties	No (interest free loan scheme available)
	Low Income Households	No (financial assistance scheme available)
	Local Businesses Impacted by the CAZ	No (interest free loan scheme available)
	Residents within the CAZ	No (financial assistance scheme available)
	Residents within RPZs Intersected by the CAZ Boundary	No (financial assistance scheme available)
	Scheduled Buses, Home to School Transport and Tourist Trips	No (interest free loan scheme available)
	Inter-zonal Charge for Bath and Bristol	No
	NHS Staff	No

Appendix B. List of Exemptions and Concessions under a CAZ D

	Vehicle Class	Exemption or Concession?
Tax Classes	The Private/Light Goods Class (PLG) Graduated Vehicle Excise Duty Vehicles registered on or after 01/04/2017	No
	Heavy Goods Vehicle Class	No
	Private HGV	No
	Special Types	Concession until 1/1/2025
	General Haulage Vehicles	Concession until 1/1/2025
	Bus	No
	Motorcycle Electric Motorcycle	Exemption
	Special Vehicles Mobile Crane Mobile Pumping Vehicles Digging Machines Works Trucks Road Rollers Showman's HGV Showman's Haulage Vehicle	Concession Until 1/1/2025
	Small Island Vehicles	No
	Recovery Vehicle	Concession Until 1/1/2025
	Special Concessionary Agricultural Machine Mowing Machine Electrically Propelled Vehicle Gritter Snow Plough Steam Vehicles	Exemption
	Emergency Vehicles Ambulance Fire Engine and Fire Service Mine Rescue Lifeboat Haulage and Lighthouse Authority Vehicles Police Vehicles	Concession Until 1/1/2025
	Limited Use	Exemption
	Disabled Tax Class	Exemption
	Disabled Passenger Vehicle	Exemption
	Historic Vehicles	Exemption
	National Health Service Vehicles	Exemption

	Vehicle Type	Exemption or Concession?
User / Vehicle Type	Euro 4+ petrol vehicles	Exemption
	Euro 6+ diesel vehicles	Exemption
	Fully electric or hydrogen fuel cell vehicles	Exemption
	Security Services	Exemption
	Diplomatic Vehicles	Exemption
	Military Vehicles	Exemption
	Emergency Service Vehicles	Exemption
	Construction Machinery (Special Vehicles tax class)	Exemption
	Hybrid Cars	Concession under consideration to 1/1/2023 for all hybrid cars, including taxis
	Euro 5 Diesel Taxis and Private Hire Vehicles	Concession under consideration to 1/1/2023
	Blue Badge Holders	Concession under consideration to 1/1/2023 for Euro 4/5 diesel
	Wheelchair Accessible Vehicles (WAVs) used as Taxis	Concession under Consideration to 1/1/2023 for Euro 4/5 diesel
	Health and Care Provider Vehicles	Concession under consideration to 1/1/2023 for Euro 4/5 diesel
	Community Transport Providers	Concession under consideration to 1/1/2023 for Euro 4/5 diesel
	Council Vehicles	No
	Contractor Vehicles Undertaking Statutory Duties	No (interest free loan scheme available)
	Low Income Households	No (financial assistance scheme available)
	Local Businesses Impacted by the CAZ	No (interest free loan scheme available)
	Residents within the CAZ	No (financial assistance scheme available)
	Residents within RPZs Intersected by the CAZ Boundary	No (financial assistance scheme available)
	Scheduled Buses, Home to School Transport and Tourist Trips	No (interest free loan scheme available)
	Inter-zonal Charge for Bath and Bristol	No
	NHS Staff	No