



Bracknell Forest Council

Air Quality Action Plan

2024 to 2029

In fulfilment of Part IV of the Environment Act 1995

Local Air Quality Management

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1. Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the action we will take to improve air quality in Bracknell Forest between 2024 and 2029.

This action plan replaces the previous action plan which ran from 2014 to 2023.

The projects listed below were completed and delivered because of the 2014 to 2023 Action Plan:

- **Improvements and signalisation at the Horse & Groom Roundabout**

These measures form part of the wider improvements of the A322/A329 corridor and monitoring undertaken before further capacity improvements on Downshire Way, showed an overall improvement in peak hour journey times along the entire route between Coppid Beech Roundabout and the Swinley Gyratory. For work completed in 2018, the monitoring showed improved movement through the junction with shorter queuing times and a reduction in NO₂ concentrations, to below the objective set in the AQMA 1 (Bracknell).

- **Improvements and signalisation at the Sports Centre Roundabout**

Created an improvement in traffic movement which led to more reliable journey times and a reduction in queues, alongside a reduction in NO₂ concentrations, to below the objective in the AQMA 1 (Bracknell).

- **Capacity and safety improvements including full signalisation at the Twin Bridges Roundabout.**

This improved traffic movement along Bagshot Road and Downshire Way during peak hours and achieved a reduction in NO₂ concentrations to below the objective in the AQMA 1 (Bracknell).

- **Widening of Downshire Way from the Horse & Groom Roundabout to Twin Bridges**

Improved movement along Bagshot Road and Downshire Way for peak hour traffic and achieved a reduction in NO₂ concentrations to below the objective in the AQMA 1 (Bracknell).

- **Capacity and safety improvements at the junction with B3348 Dukes Ride and A321 Wokingham Road**

This improved traffic movement through junction in peak hours and created a reduction in NO₂ concentrations to below the objective in the AQMA 1 (Bracknell).

- **Crowthorne High Street replacing flat top humps with speed cushions**

This has helped reduce the stop/start of the traffic and help maintain an even speed through the High Street, reducing NO₂ levels in this area to below the objective levels.

- **Reduction in bus waiting times at stops, which aids traffic flow and reduces queuing**

All local buses in Bracknell now accept payment by contactless bank card which speeds up boarding times. Improvements have been made to bus fleet, 85% of which meet Euro VI and 65% meet Euro V standard. Only one bus (used only in emergencies) falls below Euro IV standard. Further, there is a notable reduction in the use of buses due to the knock-on effects of COVID. All the above have helped reduce the background NO₂ concentrations across the borough.

- **Signage improvements along key routes including the Bagshot Road within the AQMA (Cycle Routes)**

Data drawn from annual walking and cycling surveys indicate that levels of cycling and walking across the wider Borough have increased by 13% from 2021 to 2022. Again, this has helped reduce the background NO₂ concentrations across the Borough.

- **Provision of real time information at key bus stops**

This encourages people to use the bus and reduces the number of vehicles on the road, which in turn reduces background NO₂ concentrations across the Borough.

- **Updating the Council's website to include real time rail and bus information**

BFBC has launched the MyJourney microsite which provides information on all public transport within Bracknell Forest. This has helped towards reducing the background NO₂ concentrations across the borough.

- **With Government funding, further work into Smart Ticketing was commissioned**

All Thames Valley Buses accept payment by contactless payment, to speed up the “on and off” speed at the bus stops. This has help towards reducing the background NO₂ concentrations across the borough.

- **Undertaking targeted marketing to households and businesses within 150m of the key routes, to encourage cycling and walking**

Original survey conducted through Local Sustainable Transport Fund (STF) has helped towards reducing the background NO₂ concentrations across the borough.

- **Development of School Travel Plans within the Borough**

Council actively works with schools across the Borough to use and update their Travel Plans to encourage cycling and walking. All but one of the non-independent schools, have produced a School Travel Plan. Bikeability classes are run each year and we promote an annual Walk to School Week. This has helped reduce the background NO₂ concentrations across the Borough.

- **Development of two programmes for personal travel planning; to encourage more sustainable travel.** One programme will be set in residential areas and the other at large employer sites.

Business travel plans produced and distributed to all businesses in 2016 are available on the Council website and all new major residential developments in Bracknell are now required to develop travel plans. The guidance and advice have been well received by businesses and the developer of Jennets Park subsequently agreed to run a bus service into the town centre, for several years.

CALA/Vistry (Bovis and Linden Homes) (Legal & General) are funding alterations to a bus service which will allow access to Crowthorne railway station, and several large employers (such as Dell) now run minibuses for staff travelling from the railway station to the office. This has helped towards reducing the background NO₂ concentrations across the Borough.

Several of the proposed actions are still in the implementation stage and will be added to the new Action Plan, so this work will continue.

Actions for the 2024 to 2029 AQAP include:

- **Measure 1:** Improvements to Dukes Ride/Bracknell Road junction
Scheme aims to improve the flow of traffic through the junction by adding a left-turn lane into High Street and moving the bus stop on Bracknell Road.
- **Measure 2:** Enforcement of the Parking regulation in Crowthorne High Street
Parking Enforcement Team to look at the feasibility of enforcing the signs.
- **Measure 3:** Feasibility Study for a Cycle path in the Crowthorne Golden Triangle
Transport Planning to look more in-depth to whether a dedicated cycle route is feasible.
- **Measure 4:** Education Health Promotion, Behaviour Change Projects, and Environmental Action Days
Promote cleaner air during the national/local action weeks.
- **Measure 5:** Anti-Idling Education/ Enforcement
Working with Parking Enforcement, alongside educating those who idle on the health impacts and why we are carrying out enforcement.
- **Measure 6:** Environmental Permitting Regulations
Inspections and checking monitoring data for emissions to air, will be carried out as required by Environmental Health.
- **Measure 7:** Feasibility Study into High Street Closures
To close the High Street at different times throughout the year to help reduce the NO₂ emissions.
- **Measure 8:** Feasibility delivery plan and provision of rear service yard access to reduce number of delivery vehicles unloading in Crowthorne High Street
To look further into depth on the feasibility of this long-term action that is dependent on gaining permission from shops. Complications arise, given individual ownership issues at the back of the shops and properties. Responsibility for the High Street delivery issues really relies with the Council's enforcement team and as an interim/compromise solution, a Freight Quality Partnership with the Parish, traders, and freight providers.

- **Measure 9:** Feasibility Study for bike parking with in Crowthorne
Investigation to find out if and where extra bike parking could be installed.
- **Measure 10:** Feasibility Study for 20 mph zone in the AQMA along Bracknell Road
Study to be conducted by Traffic Safety.
- **Measure 11:** Finger Signs for cycling and walking routes in Crowthorne
More signage to be used in Crowthorne to help those who are walking or traveling by bike, know the approximate time it will take them to reach their destination.
- **Measure 12:** Bus User Discounts
Bus ticket holders to be offered discount in participating venues.
- **Measure 13:** Grants for help with projects within the AQMA and Borough
This will include the DEFRA Air Quality grant, along with others, that will be of benefit to the air quality in the Borough.
- **Measure 14:** Air Quality Planning Conditions
- Planning to continue to work with Environmental Health and to the apply conditions that improve the air quality in the Borough and to consider the impact of a new development on existing air quality levels.
- **Measure 15:** Continue introducing electric cars as pool cars
Increase the number of electric pool cars owned by the Council.
- **Measure 16:** Increase in EV chargers
Increase the amount in the Borough and Crowthorne.
- **Measure 17:** Feasibility Study into the Lane Rental Scheme under NRSWA s74A.
Companies who work on the roads, charged in relation to the legislation.
- **Measure 18:** Parking Car sticker Advertising
Car parking tickets to advertise the health effects of idling and traffic emissions.

- **Measure 19:** Helping Business reduce emissions

ECO Stars - an accreditation scheme to help companies achieve emission reduction in their fleet.

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancers and affects the most vulnerable in our society particularly children, older people and those with existing heart and lung conditions. There is also a strong correlation with equalities issues because areas with poor air quality are often the less affluent areas^{1,2}. The annual health cost to society, of the impacts of particulate matter alone in the UK, is estimated to be around £16 billion³. Bracknell Forest Council is committed to reducing exposure to poor air quality for all its residents to improve health.

Bracknell Forest Council has developed several actions for consideration under 10 broad topics:

- Alternatives to use of private vehicles
- Environmental permits
- Freight and delivery management
- Policy guidance and development control
- Promoting low emission transport
- Promoting travel alternatives
- Public information

¹ Environmental equity, air quality, socioeconomic status, and respiratory health, 2010

² Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

³ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

- Transport planning and infrastructure
- Traffic management
- Vehicle fleet efficiency

Our priorities are to reduce the idling traffic in Crowthorne by keeping the traffic flowing and changing people's behaviour, so they turn off their engines when stationary and safe to do so. In this Action Plan we outline our plan to effectively tackle air quality issues that are within our control. We recognise that there are many air quality policy areas that we cannot influence (such as vehicle emissions standards agreed in Europe) but for which we may provide useful evidence, therefore, we will continue to work with Regional and Central Government on these policies, for the wider good.

The Action Plan entails a joint working approach with other teams within the Council, such as Climate Change, Transport and Highways, Planning and Public Health, along with local environmental groups and schools. This joint approach will ensure that the measures detailed within this Action Plan continue to provide a holistic and structured approach towards improving the air quality in the Borough.

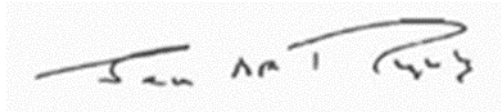
1.1 Responsibilities and Commitment

This Action Plan was prepared by the Public Protection Partnership for Bracknell Forest Council with the support and agreement of the following departments:

- Highways Department,
- Planning Department,
- Climate Action Change,
- Waste and Recycling,
- Landscaping,
- Environmental Health and
- Public Health.

This AQAP has been approved by: Sean Murphy

This AQAP has been signed off by the manager of Public Protection Partnership.

A handwritten signature in black ink, appearing to read 'Sean Murphy', is centered on a light gray rectangular background.

Sean Murphy

Service Lead – Public Protection Partnership

This AQAP will be subject to a tri-annual stakeholder working group, an annual review, appraisal of progress and reported to the Joint Management Board. Progress each year will be reported in the Annual Status Reports (ASRs) produced by Bracknell Forest Council as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP, please send them to Charlie Fielder at:

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2. Introduction

This report outlines the actions that Bracknell Forest Council will deliver from 2024 to 2029 to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life for residents and visitors to Bracknell Forest, and in particular Crowthorne.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at least and progress on measures set out within this Plan, will be reported annually within Bracknell Forest Council's Air Quality Report (ASR) submitted to DEFRA.

The Council declared the Crowthorne AQMA in 2011, for the exceedance of the annual mean NO₂ objective at a level of 41.7 µg/m³.

The purpose of the Action Plan is to:

- Provide context to the national requirements for assessing and managing air quality in declared AQMA.
- Outline the measures delivered and/or proposed by the Council in its aim to improve local air quality and meet the air quality standards and objectives, within the AQMA area.

As the Action Plan is predominantly transport based, through highways network and travel choices, most of the delivery of this plan will be integrated with the delivery of the existing Local Transport Plan (LTP) 3, and the current draft LTP4 which is due to be published later in 2024. It is also important to recognise the link between air quality and climate change, so the Action Plan will seek to provide an integrated approach to local air quality and the impacts of climate change.

The new plan focuses primarily on the one AQMA in Crowthorne, see Appendix D.

The local air quality plan has a vital role not only in protecting public health and the environment but also by enhancing quality of life for our society. There is evidence to demonstrate that exposure to air pollution can be associated with several adverse health impacts and can reduce life expectancy by an average of 7 – 8 months. Poor

air quality particularly affects the most vulnerable in society, the very young and older people and those with pre-existing heart and lung conditions.

The strategic framework for air quality management in the UK is contained within the Air Quality Strategy (AQS) which DEFRA updated in April 2023. This strategy contains the national air quality standards and objectives established by the Government to protect human health. See Table 2.1.

The AQS objectives consider EU Directives that set limit values which member states are legally required to achieve, by target dates. The objectives for ten pollutants (benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, sulphur dioxide, particulates - PM10 and PM2.5, and ozone) have been prescribed within the Air Quality Strategy based on the Air Quality Standards (England) Regulations 2010.

The Strategy acknowledges there are links between air quality and climate change and in 2010 DEFRA published a further document entitled “Air Pollution: Action in a Changing Climate” which acknowledged that air pollution often originates from the same activities that contribute to climate change e.g., road transport. Therefore, it makes sense to link air quality action plans with climate change and transport policies, by including objectives in these policies, within this plan.

All local authorities in the UK have statutory duties for managing local air quality under Part IV of the Environment Act 1995. Local authorities are required to carry out regular reviews and assessments of air quality in their area against standards and objectives prescribed in the Air Quality (England) Regulations 2010 and the Air Quality (England) (Amendment) Regulations 2002 (SI 3043). The objectives for the pollutants for the Local Air Quality Management (LAQM) are set by the Regulations as shown in Table 2.1.

Bracknell Forest Council is one of the 130 Local Authorities which has declared AQMAs based on the failure to meet the air quality objective for annual mean NO₂.

Table 2.1- Air Quality Objectives included in the Air Quality Standard regulations 2010 for the purpose of LAQM in England.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m ³	Running annual mean	31.12.2003
	5.00 µg/m ³	Running annual mean	31.12.2010
1,3-Butadiene	2.25 µg/m ³	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m ³	Running 8-hour mean	31.12.2003
Lead	0.5 µg/m ³	Annual mean	31.12.2004
	0.25 µg/m ³	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2010
	40 µg/m ³	Annual mean	31.12.2010
Particles (PM2.5) (gravimetric)	20 µg/m ³	Annual mean	01.01.2020
	Target reduction of 20% in concentrations at urban background	Annual mean	Between 2010 and 2020
Particles (PM10) (gravimetric)	50 µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m ³	Annual mean	31.12.2004
Sulphur dioxide	350 µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

2.2 Summary of Current Air Quality in Bracknell Forest

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancers. Additionally, air pollution particularly affects the most vulnerable in society such as children, the elderly and those with existing heart and lung conditions. There is also a strong correlation with equalities issues because areas with poor air quality are also often the less affluent areas^{4,5}.

The mortality burden of air pollution within the UK is equivalent to 29,000 to 43,000 deaths at typical ages⁶, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017⁷.

2.3 General Air Quality Trends in Bracknell Forest.

The major source of air quality pollutants in Bracknell Forest is emissions from road transport. The main pollutant of concern is nitrogen dioxide (NO₂) and to a lesser extent the increased levels of particulate matter. Two AQMAs were declared in 2011 due to exceedances of the Annual Mean Objective for NO₂; the Bracknell AQMA (Bagshot Road and Downshire Way) and the Crowthorne AQMA. There are no exceedances of PM10. Details can be found at: <https://uk-air.defra.gov.uk/aqma/list?view=W> and maps for Crowthorne are in Appendix D.

Nitrogen dioxide (NO₂) is the main pollutant of concern. The levels in 2022 have shown a decreasing trend since 2018 (36.6µg/m³). The annualised continuous monitored NO₂ Annual Mean in 2022 was 31.1µg/m³ at Downshire Way and did not

⁴ Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

⁵ Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

⁶ Defra. Air quality appraisal: damage cost guidance, January 2023

⁷ Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

exceed the Air Quality Objective level of $40\mu\text{g}/\text{m}^3$, further, there were no exceedances of the 1-hour objective at Downshire Way. There have been no exceedances of the Objectives since before 2018.

There were no exceedances of the ratified, bias corrected, annualised and distance corrected diffusion tubes (NO_2) within the entire Borough, including the Bracknell and Crowthorne AQMA's. Also, there were no locations reading greater than $60\mu\text{g}/\text{m}^3$, which further indicates that there are unlikely to be any exceedances of the 1-hour Objective. All the 2022 sites showed decreased levels compared with the data from 2018. Although all locations within the borough showed an increase from the 2021 data, apart from Site 58, Firmount, Bracknell Road Crowthorne which dropped from $31.1\mu\text{g}/\text{m}^3$ to $30.6\mu\text{g}/\text{m}^3$. We expected an increase in 2022 as there were no lockdowns and traffic levels increased post pandemic.

From the data presented in the 2023 ASR, DEFRA has requested that Bracknell Forest Council revoke the Bracknell AQMA. However, as Crowthorne AQMA is yet to register NO_2 levels $36\mu\text{g}/\text{m}^3$ or below, for five consecutive years, a new AQAP must be produced and the AQMA remains in place.

Please refer to the latest ASR from Bracknell Forest for full details on our 2022 data and actions. publicprotectionpartnership.org.uk/media/2877/bfbc_asr_2023_ph-eh.pdf

2.4 Sources of NO_2 in AQMA

The Detailed Assessment (2012) report apportioned the source of the NO_x in the AQMAs. Government guidance in LAQM (TG) 22 states that the sources must be separated into the following components:

- Regional background (which the LA is unable to influence)
- Local background (which the LA should have some influence over) and
- Local Sources (which will add to the background to give rise to the hotspot area of exceedances. These are the principal sources for the local authority to control with the Action Plan.)

The Crowthorne AQMA Further Assessment report highlighted the local source to be moving traffic. The traffic was split into the component types of light and heavy vehicles. The main local source identified in this area derives from Light Delivery Vehicles (LDVs). As neither the nature of the high street or shop layouts have changed and using the data, we collected during COVID, the evidence shows that traffic is still the main source in the High Street and Bracknell Road.

The results show that the predominant source of NO_x in the AQMA comes from the background. As already stated, the background is made up of both local and regional background levels of NO_x and there is little that the Council can do to influence the regional background although the local background, is often influenced by local sources. The local sources identified, queuing traffic and the movement of light vehicles within the Crowthorne AQMA, contribute to the emissions.

The current legislation governing air quality, outlines that air quality action plans need to demonstrate progress towards achieving the national air quality objectives and standards. This will be evidenced by the continued monitoring within the AQMAs and through annual progress reports. Data and evidence may also be obtained from other parties to establish whether the objectives in the Action Plan are being achieved.

2.5 AQMA and a review of the Monitoring network

Bracknell Forest undertook non-automatic (i.e., passive) monitoring at 26 sites in 2022. The diffusion tubes are set at a position to replicate a human exposure (receptor locations). Several tubes are placed at the roadside and a number are placed along the kerbside, slightly away from the roadside. This data is used to model the NO₂ levels at the nearest human receptor. The results from these tubes are analysed every month and ratified annually. Some sites have a single tube whilst others have triplicate tubes, to ensure greater accuracy in the monitoring.

Air Quality data has been collected within the Borough for many years as part of the Local Air Quality Management regime. As part of the on-going monitoring and assessment of air quality, the extent and location of the monitoring sites are reviewed on an annual basis.

2.6 Crowthorne AQMA

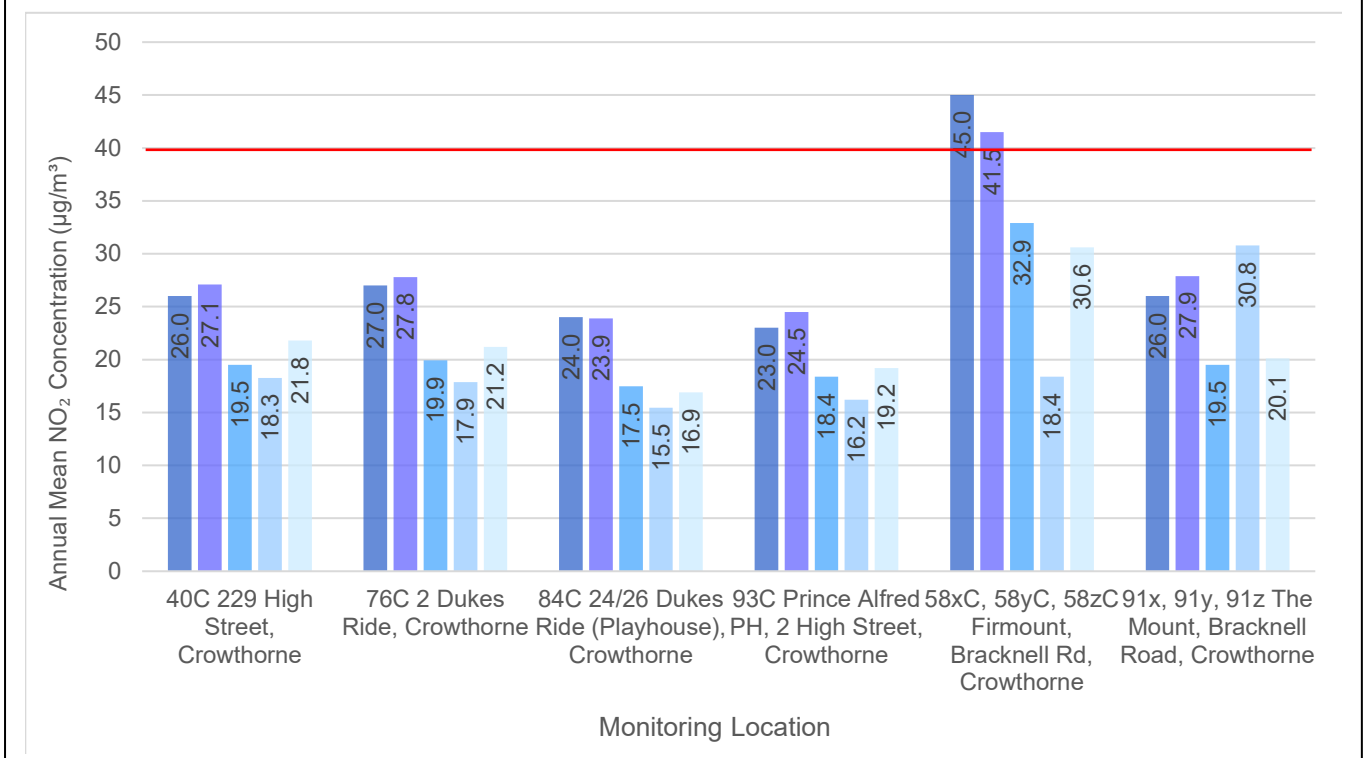
Within the Crowthorne there are 10 diffusion tube sites, 6 of which are located within the AQMA. 5 are located at road and kerb side and 1 at a receptor location. (As shown in the maps in Appendix D).

- 229 High Street Crowthorne (Kerbside)
- Dukes Ride, Crowthorne (Kerbside)
- 24/26 Dukes Ride, Playhouse, Crowthorne (Kerbside)
- Prince Alfred (Public House), High Street, Crowthorne (Receptor)
- Firmount, Bracknell Road, Crowthorne (Kerbside)
- The Mount, Bracknell Road, Crowthorne (Receptor)

2.7 Trends in Air Quality within the Crowthorne AQMA

For all 6 sites within the AQMA boundary there have been no exceedances of the NO₂ annual objective (40.0 µg/m³) since 2020 and the NO₂ has continued to show an overall reduction. In 2022, five out of six sites have seen increases in NO₂ compared to 2021 which has shown the impact from COVID. See Figure 2.1 for the NO₂ levels for years 2018 – 2022.

Figure 2.1 - NO₂ results in the Crowthorne AQMA from 2018 to 2022



2.8 When can Crowthorne Revoke its AQMA?

An AQMA can be revoked according to the LAQM. TG (22):

Para 3.57 - “The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective, as evidenced through monitoring. Where NO₂ monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36 µg/m³ (i.e., within 10% of the annual mean NO₂ objective). There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period.”

DEFRA has clarified what constitutes ‘a COVID-19 year’ with respect to air pollution and it is considered, that because of COVID-19 on traffic levels in turn, local pollutant concentrations, monitoring data from 2020 and 2021 should be excluded when a local authority is considering compliant years for AQMA revocation. Crowthorne as

has been compliant in 2022 ($36\mu\text{g}/\text{m}^3$ or below), and if it remains compliant in 2023 and 2024, we can then request to revoke the AQMA.

2.9 Stakeholder Working Groups

Due to the nature of Air Quality and how it fits within multiple groups, the Air Quality Officer attends groups such as Public Health, Parking Enforcement, Active Travel, Climate Change, Planning & Policy, as well as chairing a bi-annual AQAP meeting, to ensure that all the actions on the AQAP are being met, or to devise new actions for the new plans. As the actions of many groups can impact on improving the air quality in the borough, it is imperative that the Officer attends several groups to ensure that their actions do not create additional adverse impacts.

Stakeholders in the AQAP meetings have so far included representatives from Parking Enforcement, Public Health, Climate Change, Active Travel, Transport Planning, Planning, Traffic Enforcement, Environmental Enforcement, Parish Council, Local Councillors, Borough Councils, and local environmental groups such as Crowthorne Reduce Our Waste (CROW) and Crowthorne Village Action Group (CVAG), the local schools were also invited to attend.

3. Bracknell Forest Council's Air Quality Priorities

3.1 Public Health Context

All combustion processes in air produce oxides of nitrogen. NO₂ and nitric oxide (NO) are both oxides of nitrogen and together are referred to as NO_x. However, it is NO₂ which may be associated with adverse effects upon human health. Road transport accounts for about 33.6% of the total UK emissions of NO_x (Figure 3.1), with further contributions from non-road transport (16.8%). [Department for Environment, Food & Rural Affairs](#) (DEFRA) estimates that 80% of NO_x emissions in areas where the UK is exceeding NO₂ limits are due to transport, with the largest source being emissions from diesel light duty vehicles (cars and vans). Other sources include power generation, industrial processes, and domestic heating.

The Committee on the Medical Effects of Air Pollutants (COMEAP) has [established](#) that short-term exposure to NO₂, particularly at high concentrations, is a respiratory irritant that can cause inflammation of the airways leading to - for example - cough, production of mucus and shortness of breath. Studies have shown associations between NO₂ in outdoor air with reduced lung development, respiratory infections in early childhood and effects on lung function in adulthood.

[Epidemiological studies](#) have also shown associations of outdoor NO₂ with adverse effects on health, including reduced life expectancy. It is unclear whether these effects are caused by NO₂ itself, or by other pollutants emitted at the same time by sources such as road traffic. ([Health matters: air pollution - GOV.UK \(www.gov.uk\)](#)). However, emissions are likely to decline further over the coming years as new technology and emission standards continue to be introduced, along with local low emission zones.

There is evidence to show that long-term exposure to NO₂ may affect lung function and at relatively high concentrations, NO₂ causes inflammation of the airways. Exposure to NO₂ also increases the response to allergens, in sensitised individuals (DEFRA 2004) (Figure 3.2).

This Action Plan will outline the reduction measures in relation to NO_x, as the other pollutants in the air quality objectives have been monitored in recent years and the levels do not currently pose a health threat to those living within the AQMAs.

Figure 3.1 - Sources of air pollution

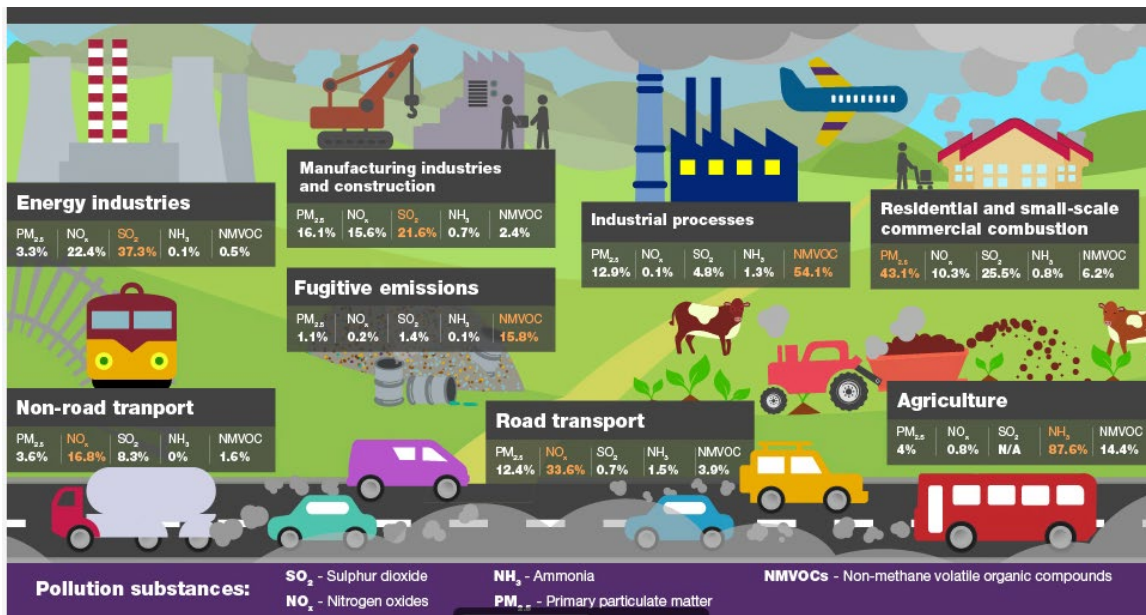
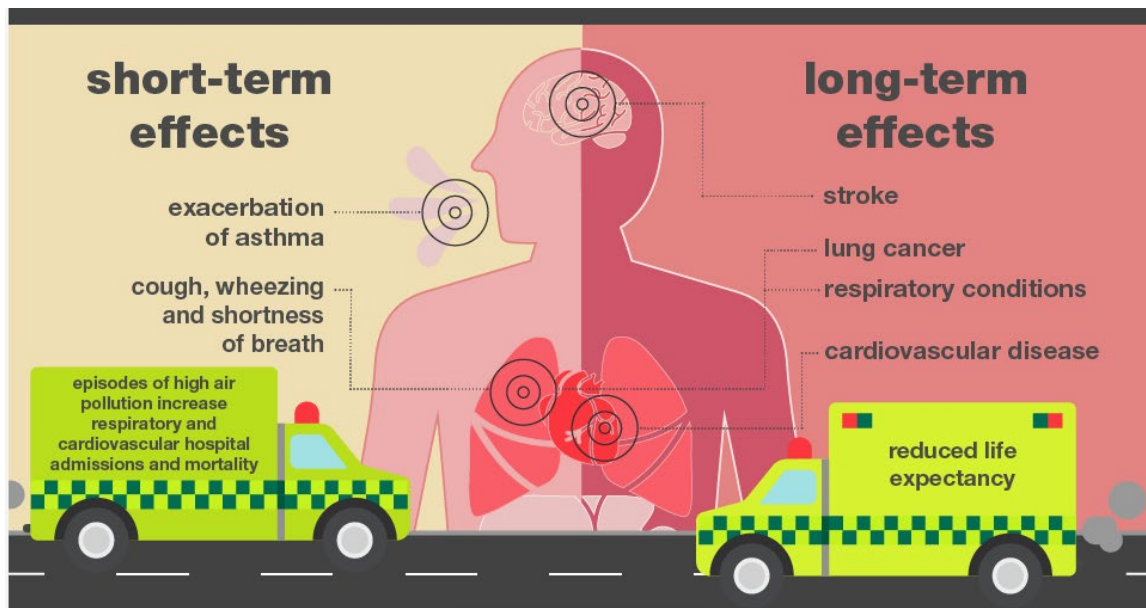


Figure 3.2 - Health effects of air pollution



The Fraction of Mortality Attributable to Particulate Air Pollution Indicator Value, for Bracknell Forest and other Local Authorities within Berkshire, can be seen in Table 3.1.

In 2020, the first person in the UK had air pollution listed as their cause of death, having been exposed to annual average exceedances of NO₂. The Prevention of Future Deaths report that followed Ella Adoo-Kissi-Debra’s death, highlighted the public’s low level of

awareness about the national and location pollution levels and their health impacts. The report sought better communication from Local Authorities and other health professionals about what the resolutions are. BFBC have already been working in partnership with the local Public Health Team to identify more vulnerable areas and will continue this work in the AQAP. Using the 2020/21 DEFRA air quality grant, we created an education tool kit about anti-idling, which is available to all schools, as well as leaflets to be attached to the weekly newsletters for parents.

Table 3.1 - Showing the Fraction of Mortality Attributable to Particulate Air Pollution Indicator Value within Berkshire.

National England Average	Southeast Region	West Berkshire	Reading	Wokingham	Bracknell Forest	Windsor & Maidenhead	Slough
5.5%	5.4%	5.4%	5.9%	5.9%	5.9%	5.9%	6.3%

3.2 Planning and Policy Context

3.2.1 The Bracknell Forest Council Local Plan (2020 – 2037)

The Bracknell Forest Local Plan provides the strategy for the growth of the borough up to 2037. Once adopted, it will replace the saved policies in the [Bracknell Forest Borough Local Plan](#) (2002) and the [Core Strategy](#) (2008). It will, therefore, be wide ranging in terms of the issues it will cover. Air quality and human health is summarised within the Sustainability Appraisal (Incorporating Strategic Environmental Assessment (page 213) [Latest updates on the local plan | Bracknell Forest Council \(bracknell-forest.gov.uk\)](#).

The Plan includes a vision, objectives and strategy for the level and distribution of development in the borough up to 2037 and is divided into two parts.

- **Part 1** deals with strategic matters and contains policies that set out the overall strategy for the pattern, scale, and quality of development, together with provision to meet specified needs.

- **Part 2** covers non-strategic matters which are essentially development management policies. These set out the criteria against which all planning applications will be considered.

The issues covered are summarised below.

Part 1:

Following the main modifications, the structure of the draft Bracknell Forest Local Plan Part 1 has changed as follows:

- Vision and objectives
- Strategy for sustainable growth
- Housing
- Economic development
- Infrastructure
- Climate change and built and natural environment

Part 2:

- housing
- economic development
- local infrastructure and community use
- development affecting the countryside and Green Belt
- character and design
- historic environment
- natural environment
- climate change and environmental sustainability
- transport

3.2.2 National Planning Policy Framework (updated December 2023)

This is National planning guidance that applies to all local authorities. It sets out the Government planning policies for England and how these should be applied. It outlines the purpose of the planning system and how it contributes to the achievement of sustainable development. The relevant section regarding air quality is:

- **Ground Conditions and Pollution (section 192)**

The following chapter states:

Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, considering the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So, far as possible, these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan”.

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

3.2.3 Bracknell Forest Local Transport Plan 3 (2011 – 2026)

Focusing on air quality matters, Local Transport Plan 3 is consistent with the government’s transport objectives for improving local air quality, by developing a set of local objectives, including the objective to protect and enhance the quantity and quality of natural resources including water, air quality and the natural environment. These have led to a set of transport policies that set a statement of intent and direction of travel, in terms of achieving better air quality in the borough and within the AQMAs. Together, over time, these policies will ensure improved air quality.

The following provide examples of how the policies are intended to deal with air quality issues across the Borough:

- **Accessibility (Policy TP1)** – states the Council is committed to improving accessibility through developing a series of corridor route strategies that ensure a co-ordinated and forward-thinking approach to network improvements. This is critical to improving the flow of traffic within and through, the Borough. For example, the A322/329 corridor which will keep traffic moving and reduce the stop/start impact of congestion, which contributes towards poorer air quality.
- **Buses (Policy TP3)** – encourages the use of alternative fuels and greener buses, which will minimise air pollution from this mode of transport in the AQMA areas.

- **Rail (Policy TP4)** – encourages improvements to capacity as an alternative to car use.
- **Taxi and Private Hire Vehicles (Policy TP5)** – encourages alternative fuels and low emission vehicles, which will benefit the AQMAs in the longer term.
- **Smarter Choices (Policy TP7)** - states that the Council will improve and promote walking and cycling options especially for short local trips. This could help ensure that unnecessary car trips through the AQMA areas are minimised.
- **Walking and Cycling (Policy TP8)** – aims to improve walking and cycling infrastructure, which could improve provision through the Crowthorne Area 2 AQMA.
- **Smarter Vehicle Use (Policy TP11)** – encourages up-to-date journey information which could influence traffic using the A322/329 corridor especially during congested periods.
- **Traffic Management (Policy TP12)** – seeks to regulate traffic by facilitating its movement. This will minimise traffic congestion and reduce its impact on air quality.
- **Congestion Management (Policy TP13)** – states that the Council, through works and measures, will improve the capacity and functionality of junctions and route corridors. The proposed junction improvements along the A322/A329 corridor planned in association with the Council Infrastructure Delivery Plan, are an example of the intended improvements to be made to implement this policy, which will have a positive impact on air quality issues in this area.
- **Intelligent Transport System (Policy TP14)** – states the Council will use Intelligent Transport Systems (ITS) technology to manage traffic flow through transport corridors. This will help to keep traffic moving and help people to make informed decisions about their intended journey.
- **Movement of Freight (Policy TP15)** –. promotes preferred routes for freight movement, low emission vehicles and the provision of infrastructure, to facilitate the use of low emission vehicles.
- **Parking (Policy TP16)** – promotes electric charging points in parking bays.
- **Network Management (Policy TP18)** - states the Council will co-ordinate the response to congestion issues which will contribute to minimising the impacts of congestion on AQMAs.

The next LTP 4 to cover the period 2024 to 2037 consultation ended on 31/01/2024. The vision for 2037 is to develop a sustainable and resilient transport network that reduces carbon and provides choice and access for all, in a safe and healthy environment, making Bracknell Forest a desirable place to live, work and grow. [Updating the Local Transport Plan | Bracknell Forest Council \(bracknell-forest.gov.uk\)](https://www.bracknell-forest.gov.uk)

3.2.4 Cycling and Walking Guidance Statement (2018 - 2022)

This Statement addresses the need to continue to encourage visitors and residents to walk and cycle, for work and leisure through a range of measures set out within Policy TP8 of the Local Transport Plan 3. These include information, promotion, education, infrastructure provision, maintenance, lighting, and trip-end facilities.

The Bracknell Forest vision derives from the Local Transport Plan, which forms the backbone of all our strategies; 'To develop a transport system that supports the local economy, provides choice and improves quality of life in a safe and healthy environment'. Through a focus on walking and cycling, we aim to help drive forward benefits for strategic and local access, sustainable transport, the environment, community health, economic growth, education, enjoyment, tourism, carbon reduction and more.

<https://www.bracknell-forest.gov.uk/sites/default/files/2022-06/walking-and-cycling-strategy.pdf>

3.2.5 Climate Change and Ecological Emergency Action Plan (2020-2024)

Bracknell Forest Council has committed itself to becoming carbon neutral by 2030 or as near possible. Delivering on this challenging target will require Members and Officers to work together to achieve this important objective. Air Quality and the actions we take as part of the Air Quality Action Plan plus local monitoring, are combined in the Climate Change Action Plan to help make a positive impact. BFC declared a climate and biodiversity emergency on 13/09/2023.

<https://www.bracknell-forest.gov.uk/council-and-democracy/strategies-plans-and-policies/climate-change/climate-change-strategy>

3.2.6 Crowthorne Neighbourhood Plan 2018 to 2036

The purpose of the Neighbourhood Plan is to set out a series of planning policies that will be used to determine planning applications in the area in the period to 2036. The Plan

forms part of the development plan for the Bracknell Forest Borough, alongside other Neighbourhood Plans and development plan documents produced by Bracknell Forest Council such as the Core Strategy, which covers the period up to 2036. The Core Strategy is one of the documents that will eventually be replaced by the Bracknell Forest Local Plan, which will cover the period up to 2037.

Policy CR9: -. demonstrate how air quality improvements will be achieved, where possible.

3.2.7 Parking Standards Supplementary Planning Document (March 2016)

An effective strategy for dealing with parking issues is vital to deliver sustainable growth in the borough. A balanced approach to delivering parking standards can help stimulate growth and meet the needs of our residents. The SPD therefore aims to deliver effective parking solutions while taking account of other planning considerations. It is not intended to suppress the use of the car, or to promote the car over other forms of transport such as walking, cycling or public transport.

Section IV (and Annex E) Adapting parking provisions for future technology and climate change, which includes the following standards.

1. For residential schemes: on sites larger than 10 dwellings, require 20% (1 in 5) of all spaces to be designed and constructed to be readily adaptable to provide charging points.
2. For employment schemes: on sites with over 500 sq. m net internal area, require 20% (1 in 5) of new spaces to be designed and constructed to be readily adaptable to provide charging points.
3. For retail schemes: on sites over 1000 sq. m net internal area, require 20% (one in five) of new spaces to be designed and constructed, to be readily adaptable to provide charging points.

3.2.8 Environmental Permitting Regulations

There are 3 Part B permits regulated by the Council within the AQMA, 2 dry cleaners and a petrol station, all of which are designated as low risk and are inspected regularly in accordance with the Pollution, Prevention and Control 1999 legislation to control emissions to air.

4. Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within Bracknell Forest Council's area.

4.1 Source apportionment for NO₂

A source apportionment exercise, using the DEFRA guidance (TG:22 Box 7-5), was carried out for Bracknell Forest. There was limited traffic data therefore the local sources are not broken down into vehicle type. This identified that within the AQMA, the source apportionment contributions were as follows:

- **Regional background, NO₂ 5.53 µg/m³ which equates to 18%**

The authority is unable to influence.

- **Local background, NO₂ 5.73 µg/m³ which equates to 19 %**

The authority should have some influence).

- **Local sources road traffic 19.34 µg/m³ which equates to 63%**

The local sources are areas which add to the background NO₂ to give rise to the hotspot area of exceedances. These are the principal sources for the local authority to control within the Action Plan.

4.2 The proportion of road NO_x emissions

The proportion of NO₂ from road traffic Using the NO_x to NO₂ Calculator provided by DEFRA, the Road Increment NO_x values could be obtained and the Total Percentage of NO₂ caused by vehicles using the roads (Table 4.1).

Table 4.1 The proportion of NO_x from Road Traffic

Monitoring Location	2022 Average NO ₂ Value (µg/m ³)	Road Increment NO _x (µg/m ³)	Total NO ₂ (µg/m ³)	Road NO ₂ (µg/m ³)	Total Percentage of Road NO ₂ (%)
229 High Street	21.80	20.58	21.80	10.54	48
2 Dukes Ride	21.20	19.35	21.20	9.94	47
24/26 Dukes Ride (Playhouse)	16.90	10.76	16.90	5.64	33
Prince Alfred PH, 2 High Street	19.20	15.31	19.20	7.94	41
Firmount, Bracknell Road (Worse Case Receptor)	30.60	39.53	30.60	19.34	63
The Mount, Bracknell Road	20.11	17.15	20.11	8.86	44

*Background 11.26(µg/m³) used for the NO_x to NO₂ conversion spread sheet (Calculator v8.1, August 2021).

The results showed (Table 4.1) that the road vehicles are one of the largest proportions of local sources and contributors to NO₂ in the Crowthorne AQMA. The main polluters are vehicles that stop/start and idle, and those queuing at the mini roundabouts at each end of the High Street and along Bracknell Road (worse case receptor) and Dukes Ride. The idling / stationary vehicles are also causing congestion, due to a single carriage way, thus increasing the NO₂ when they are making deliveries to the shops along the High Street.

AQAP will focus on proposals to reduce emissions from these local traffic sources. It will also be important to separate these sources into:

Stationary sources (if relevant) potentially dealing with each source separately.

Vehicle emissions split between moving and stationary traffic if congestion is a significant issue.

It has also been concluded from Bracknell Forest COVID traffic data (Figures 4.1 to 4.3), that vehicles are the main producer of NO₂, as the NO₂ reduce as the traffic declined in 2020 and 2021 (Figure 2.1).

Figure 4.1 - A 329 London Row traffic flow comparison between 2019 - 2021

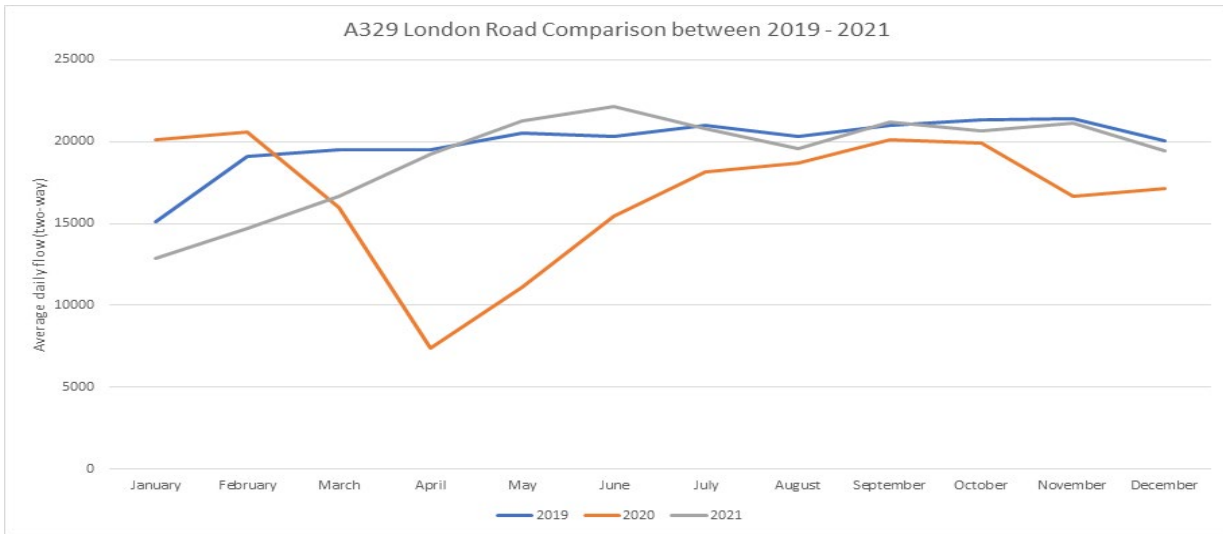


Figure 4.2 - A321 High Street Sandhurst flow comparison between 2019 - 2021

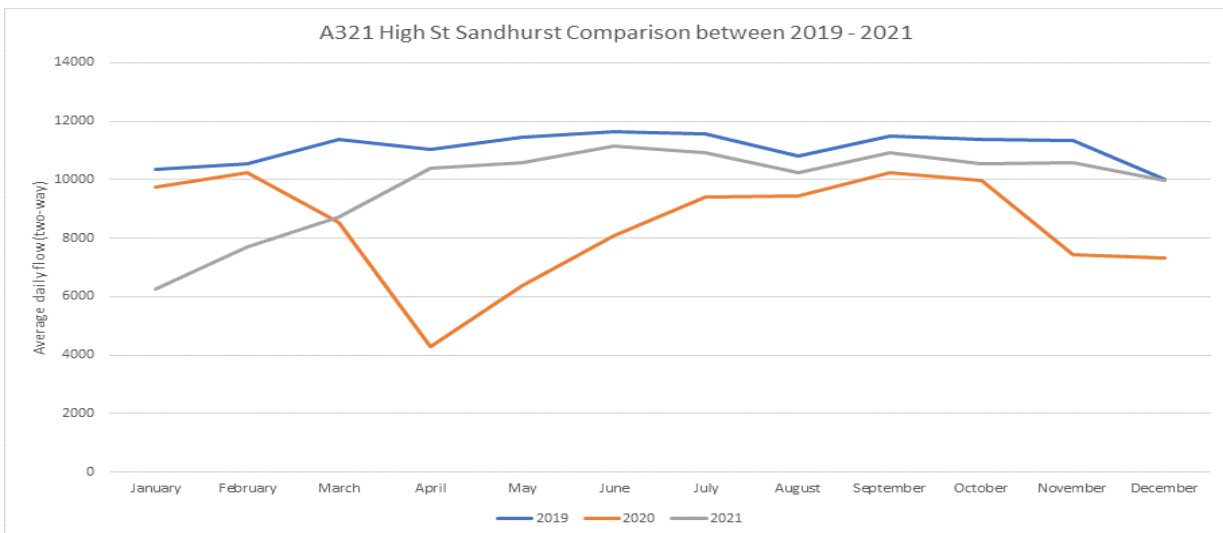
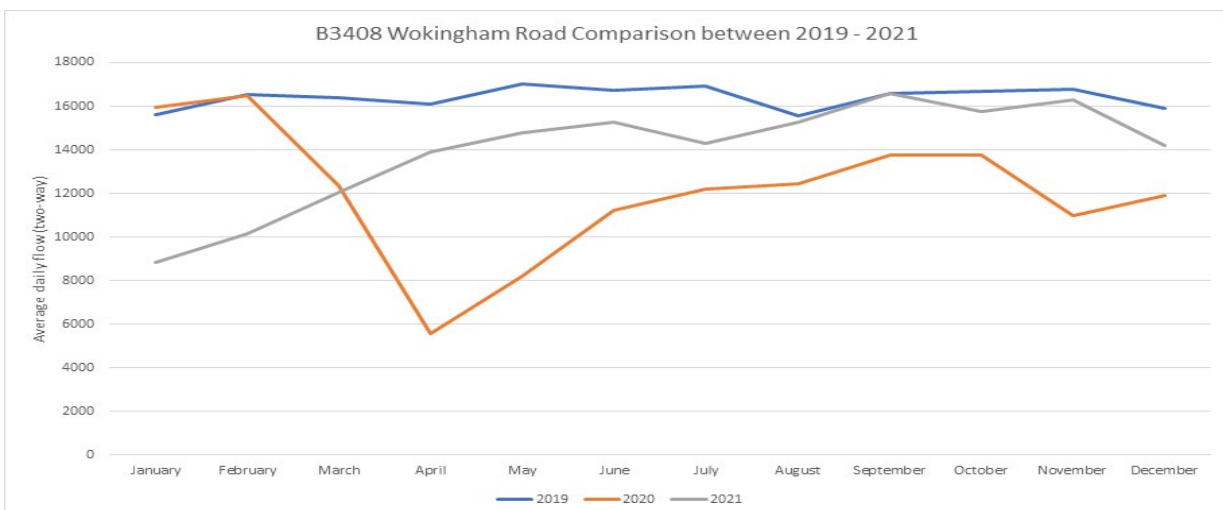


Figure 4.3 - B3408 Wokingham Road flow comparison between 2019 - 2021



4.3 Reduction in Road NO_x Emissions and Air Quality Improvement Required from this Action Plan

Figure 2.1 shows that 5 of the 6 sites within the AQMA have been compliant with the Air Quality Objective and below 36µg/m³ for the past 5 years, and one site has only been below 36µg/m³ for the past 3 years, The most recent and only location of exceedance has been at Firmount, Bracknell Road in 2018 and 2019.

Therefore, when calculating the source apportionment reduction, as required in LAQM TG.22, it can be seen that we have already achieved the target (Table 4.2), and we are now looking at measures in this plan to maintain this value, and keep the final site to below 36µg/m³ so the AQMA can be revoked (see section 2.8).

Table 4.2 - Showing the % NO₂ reduction required from this Action Plan.

Monitoring Location	2022 Average NO ₂ Value (µg/m ³)	Required Value NO ₂ (µg/m ³)	NO ₂ Reduction Required to be below 36.0 µg/m ³ (µg/m ³)	% NO ₂ Reduction required
229 High Street	21.80	36.00	-14.20	-65.14
2 Dukes Ride	21.20	36.00	-14.80	-69.81
24/26 Dukes Ride (Playhouse)	16.90	36.00	-19.10	-113.02
Prince Alfred PH, 2 High Street	19.20	36.00	-16.80	-87.50
Firmount, Bracknell Road (Worse Case Receptor)	30.60	36.00	-5.40	-17.63
The Mount, Bracknell Road	20.11	36.00	-15.89	-78.98

4.4 Key Priorities

Key priority themes, identified from the evidence above, have been integrated into the actionable measure to deliver compliance with the AQO for the AQMA. This will improve the air quality within the whole borough, whilst some measures will specifically target the AQMA. The themes are not numbered relative to their importance.

- **Theme 1 – Public Health, Education and Behaviour Change.**

Bracknell Forest would like to help protect those most vulnerable to the air quality impacts and improving air quality, is largely driven by a change in behaviour of those who use vehicles. As a Council, we have an important role in encouraging and facilitating this change. We aim to continue to inform our residents about the health impacts associated with poor air quality and provide information and guidance on how they can and travel by alternative methods or drive in a greener way, to be part of the solution. This can include Health Action days such as Clean Air Day and social media campaigns.

- **Theme 2 – Active Travel, Public Transport and Low Emission Vehicles**

Bracknell Forest would like to help its residents use alternative means of travel in the borough and especially in the AQMA, by making the use of bicycles more attractive, alongside walking. It supports sustainable travel, car clubs, travel plans, electric vehicles and would like to improve EV charging options and other options.

- **Theme 3 – Transport Planning and Traffic Management**

The Council always considers the air quality when making alterations and improvements to the local network, regarding options to enhance junctions enabling traffic to flow and prevent queuing as much as possible.

5. Development and Implementation of Bracknell Forest Council AQAP

5.1 The AQAP Development

Bracknell Forest Council currently has two active AQMA's, however due to Area 1 being advised by DEFRA for Revocation in 2024, Bracknell Forest have been advised to concentrate on measures to reduce the NO₂ in Crowthorne, whilst including actions which will benefit the Borough as a whole.

A Strategic AQAP will provide Bracknell Forest Council with an Action Plan that includes:

- Strategic Borough wide measures
- Incorporating locally focused measures
- Strategic Partnership working through a wider strategic AQAP Steering Groups.

5.2 Consultation and Stakeholder Engagement

In developing/updating this AQAP, we have worked with other local authorities, agencies, businesses, and the local community, to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies as listed in listed in Table 5.1. In addition to consultation with statutory consultees, stakeholders and internal officers, bodies representing local business interests and other organisations were included.

We have conducted two workshops with Stakeholders. One for internal colleagues and included officers from the following areas: Highway Engineers, Active Travel, Public Health, Waste & Recycling, Parks and Countryside, Asset Management and Climate Change. The second meeting was for those who represent the village and attendance included: the Parish Clerk, a Parish Councillor, a Borough Councillor, chairperson from Crowthorne Reduce Our Waste (CROW) and Crowthorne Village Action Group (CVAG). The local schools were also invited to attend.

The Consultation was also advertised on the Public Protection Partnership website.

The response to our consultation stakeholder engagement is given in Appendix A: Response to Consultation, and suggested actions are given listed in Appendix C.

Table 5.1 – Consultation Undertaken

Consultee	Consultation Undertaken
The Secretary of State (DEFRA)	Yes
The Environment Agency	Yes
The Highways Authority	Yes
All neighbouring local authorities (Windsor and Maidenhead, Hampshire CC, Surrey CC, South Oxfordshire, Reading, Wokingham and Basingstoke and Deane)	Yes
Other public authorities as appropriate, such as Public Health officials. (E.g., Crowthorne Parish Council, Crowthorne Village Action Group, Crowthorne Reduce Our Waste	Yes
Bodies representing local business interests and other organisations as appropriate	Yes

5.3 Steering Group

The Steering Group has been in place since 2012 when the original AQAP was adopted, and actions required. The Steering Group is responsible for the implementation and monitoring of the delivery of the AQAP to ensure measures are kept on track and the actions updated in the ASR.

The group is led by the Air Quality Officer and meets bi-annually to update on the action’s progression. Members are from a diverse background and include (but not limited to)

- Public Health
- Active Travel/ Transport Planners
- Highways
- Waste Enforcement
- Traffic Enforcement
- Planners
- Environmental Health
- Climate Change
- Environmental groups (external).

The Air Quality Officer attends both internal and external meetings (cross Borough) to ensure that all remain up to date with what is happening within the Borough and adjacent authorities. Individual stakeholder meetings are also set up when project planning and implementing specific items on the AQAP.

6. AQAP Measures

Table 6.1 shows the Bracknell Forest Council AQAP measures. It contains:

a list of the actions that form part of the plan.

- the responsible individual and departments/organisations who will deliver this action.
- estimated cost of implementing each action (overall cost and cost to the local authority)
- expected benefit in terms of pollutant emission and/or concentration reduction.
- the timescale for implementation
- how progress will be monitored
- listed in priority order following a cost benefit and air quality impact analysis (see Appendix E) (e.g., showing the cheapest measures with the greatest reduction in pollutant concentrations are the higher priorities).

NB: Please see future ASRs for regular annual updates on implementation of these measures.

6.1 Strategic and localised measures

The proposed measures set out in the AQAP are a mixture of educational, enforcement, strategic, alternative transports plans and traffic management options, which are specific to the Crowthorne AQMA.

6.2 2024-2029 Measures

Each measure for the action plan has been explained below to give more detail. Annual updates will be provided in the ASR.

- **Measure 1:** Improvements to Dukes Ride/Bracknell Road junction

Scheme aims to improve the flow of traffic through the junction by adding a left-turn lane into High Street and moving the bus stop on Bracknell Road.

- **Measure 2:** Enforcement of the Parking regulation in Crowthorne High Street
Parking Enforcement Team to look at the feasibility of enforcing the signs.
- **Measure 3:** Feasibility Study for a Cycle path in the Crowthorne Golden Triangle
Transport Planning to look more in-depth to whether a dedicated cycle route is feasible.
- **Measure 4:** Education Health Promotion, Behaviour Change Projects, and Environmental Action Days, Promote cleaner air during the national/local action weeks.
- **Measure 5:** Anti-Idling Education/ Enforcement
Working with Parking Enforcement, alongside educating those who idle on the health impacts and why we are carrying out enforcement.
- **Measure 6:** Environmental Permitting Regulations
Inspections and checking monitoring data for emissions to air, will be carried out as required by Environmental Health.
- **Measure 7:** Feasibility Study into High Street Closures
To close the high street at different times throughout the year to help reduce the NO2 emissions.
- **Measure 8:** Feasibility delivery plan and provision of rear service yard access to reduce number of delivery vehicles unloading in Crowthorne High Street.
To look further into depth on the feasibility of this long-term action that is dependent on gaining permission from shops. Complications arise, given individual ownership issues at the back of the shops and properties. Responsibility for the High Street delivery issues really relies with the Council's enforcement team and as an interim/compromise solution, a Freight Quality Partnership with the Parish, traders, and freight providers.
- **Measure 9:** Feasibility Study for bike parking with in Crowthorne
Investigation to find out if and where extra bike parking could be installed.

- **Measure 10:** Feasibility Study for 20 mph zone in the AQMA along Bracknell Road
Study to be conducted by Traffic Safety.
- **Measure 11:** Finger Signs for cycling and walking routes in Crowthorne
More signage to be used in Crowthorne to help those who are walking or traveling by bike, know the approximate time it will take them to reach their destination.
- **Measure 12:** Bus User Discounts
Bus ticket holders to be offered discount in participating venues.
- **Measure 13:** Grants for help with projects within the AQMA and Borough
This will include the DEFRA Air Quality grant, along with others, that will be of benefit to the air quality in the Borough.
- **Measure 14:** Air Quality Planning Conditions
Planning to continue to work with Environmental Health and to the apply conditions that improve the air quality in the Borough and to consider the impact of a new development on existing air quality levels.
- **Measure 15:** Continue introducing electric cars as pool cars
Increase the number of electric pool cars owned by the Council.
- **Measure 16:** Increase in EV chargers
Increase the amount in the Borough and Crowthorne.
- **Measure 17:** Feasibility Study into the Lane Rental Scheme under NRSWA s74A.
Companies who work on the roads, charged in relation to the legislation.
- **Measure 18:** Parking Car sticker Advertising
Car parking tickets to advertise the health effects of idling and traffic emissions.
- **Measure 19:** Helping Business reduce emissions
ECO Stars - an accreditation scheme to help companies achieve emission reduction in their fleet.

Table 6.1 – Air Quality Action Plan Measures

Measure No.	Priority Score (Cost Benefit Analysis)	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator (Quantitative Assessment)	Progress to Date	Comments / Potential Barriers to Implementation
1	1	Improvements to Dukes Ride/Bracknell Road junction	Traffic Management	Strategic highway improvements, Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2017	2029	BFBC	BFBC	NO	Funded	£100k - £500k	Planning	Reduction in NO ₂ concentrations to below the objective in AQMA	Reduce queues and journey time. Measurable reduction in NO ₂	Concept designed and consultation ongoing	Scheme aims to improve the flow of traffic through the junction by adding a left-turn lane into High St and moving the bus stop on Bracknell Road.
2	2	Enforcement of the Parking Regulation in Crowthorne High Street	Traffic Management	Workplace Parking Levy, Parking Enforcement on highway	2023	2040	BFBC Parking Enforcement	BFBC/Parking Enforcement	NO	Funded	£10k - £50k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the Crowthorne AQMA	Free flowing traffic. Measurable reduction in NO ₂	Signs are already erected along the High Street with “No delivery times” displayed to be enforced.	Signs already in place. Lack of resources/priority to enforce on a regular basis to act as a deterrent.
3	2	Feasibility Study for a Cycle path in the Crowthorne “Golden Triangle”	Transport Planning and Infrastructure	Cycle network	2023	2029	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	£10k - £50k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the Crowthorne AQMA	Increase of bike users in the village. Measurable reduction in NO ₂	None	Feasibility study to be undertaken to establish suitability. The Golden Triangle is located along Dukes Ride, High Street and Church Street/Waterloo Road.
4	3	Education, Health Promotion, Behaviour Change Projects, and Environmental Action Days	Public Information	Other	2023	2029	BFBC/Public Health	BFBC/PH	NO	Not Funded	£10k - 50k	Implementation	Reduction in NO ₂ concentrations to below the objective in the whole borough	Reduce emissions and having people actively changing their habits. Measurable reduction in NO ₂	Anti-idling education pack for the schools on the PPP website, and My Journey website. Free 5buses to Bracknell town centre Saturdays during December	The main barrier is the lack of engagement from the schools, and people’s lack of willingness to change, and realising that everyone’s small action, creates a large change. There are many days out there to help with promotion, such as Clean Air Day, Bus for £2 schemes and free bus days, Dr Bike sessions, Bikeability cycle training, walk /

Measure No.	Priority Score (Cost Benefit Analysis)	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator (Quantitative Assessment)	Progress to Date	Comments / Potential Barriers to Implementation
															2023. Eco Rewards and Love to Ride initiatives running 2021 to date	cycle to school days. There are also campaigns / initiatives such as Love to Ride and Eco Rewards that aim to make active travel fun and engaging with an element of competition
5	3	Anti-Idling Education/ Enforcement	Traffic Management	Anti-idling enforcement	2022	2029	BFBC	BFBC	NO	Partially Funded (DEFRA AQ Grant)	£100k - £500k	Implementation	Reduction in NO ₂ concentrations to below the objective in the whole borough, especially outside schools	Reduce emissions and having people actively changing their habits Measurable reduction in NO ₂	Anti-idling education pack for the schools on the PPP website, and My Journey website.	BFBC Parking Services already carry out anti-idling education and parking enforcement in known hotspot areas, including near schools.
6	3	Environmental Permitting Regulations	Environmental Permits	Measures to reduce pollution through IPPC Permits going beyond BAT	2023	2040	BFBC Env Health	EH BFBC	NO	Partially Funded	< £10k	Implementation	A reduction in emissions to comply with the Permit.	Permitted premises are compliant with the permit.	Dry Cleaning the Petrol Vapour Recovery Permits within Crowthorne	Ensure inspections continue as required by the risk rating system.
7	3	Feasibility Study into High Street Closures	Traffic Management	UTC, Congestion management, traffic reduction	2024	2029	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	< £10k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the whole borough	Measurable reduction in NO ₂	Feasibility study	Whether it is implemented by the borough
8	4	Feasibility of the delivery plan and provision of rear service yard to reduce number of delivery vehicles unloading in Crowthorne High Street	Freight and Delivery Management	Freight Partnerships for city centre deliveries	2015	2035	BFBC	BFBC	NO	Not Funded	£100k - £500k	Planning	Reduction in background NO ₂ concentrations across the borough	Reduce unloading and loading along section of High Street and smooth traffic flow Measurable reduction in NO ₂	In progress. Council is working with shop owners to gain planning permission to use rear access.	To look further into depth on the feasibility of this long-term action that is depending on gaining permission from shops. Complications arise, given individual ownership issues at the back of the shops and properties. Responsibility for the High Street delivery issues really relies with the Council's enforcement team, and as an interim/compromise

Measure No.	Priority Score (Cost Benefit Analysis)	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator (Quantitative Assessment)	Progress to Date	Comments / Potential Barriers to Implementation
																solution, a Freight Quality Partnership with the Parish, traders, and freight providers.
9	4	Feasibility Study for bike parking with in Crowthorne	Promoting Travel Alternatives	Promotion of cycling	2023	2040	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	£10k - £50k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the Crowthorne AQMA	Completion of the study. Measurable reduction in NO ₂	None	Lack of funding and/or space to build the bike lock ups.
10	4	Feasibility Study for 20 mph zone in the AQMA along Bracknell Road	Traffic Management	Reduction of speed limits, 20mph zones	2023	2029	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	£10k - £50k	Planning	A reduction in NO ₂ concentrations to below the objective levels on the Bracknell Road, Crowthorne	Completion of the study. Measurable reduction in NO ₂	None	Feasibility study to be undertaken to establish suitability.
11	4	Finger Signs indicating cycling and walking routes in Crowthorne	Transport Planning and Infrastructure	Cycle network	2023	2029	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	£50k - £100k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the Crowthorne AQMA	Increase and encourage active travel users in the village Measurable reduction in NO ₂	None	Feasibility study to be undertaken to establish suitability.
12	4	Bus User Incentives	Promoting Travel Alternatives	Personalised Travel Planning	2023	2029	BFBC/Thames Valley Buses/Active Travel	BFBC/Thames Valley Buses/Active Travel	NO	Not Funded	£10k - 50k	Implementation	A reduction in NO ₂ concentrations to below the objective in the whole borough	Increase in bus use uptake for journeys into shopping areas in the Borough.	Bus companies already run discount days.	The local of business will to accept the bus tickets and support the venture, also lack of advertising to help promote the venture.
13	4	Grants for help with projects within the AQMA and Borough	Other	Other	2023	2029	BFBC	BFBC	NO	Not Funded	< £10k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the whole borough	Increase in projects enabled	None	Cost for applying for a grant, not winning the grants, and having to apply for more grants to achieve the actions on the AQMP.
14	5	Air Quality Planning Conditions	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2029	BFBC Planning	Planning	NO	Not Funded	< £10	Implementation	Reduction in NO ₂ concentrations to below the objective in	Decrease in NO ₂	Conditions are applied to Planning permissions	Planning to continue to work with Environmental Health and apply conditions to improve

Measure No.	Priority Score (Cost Benefit Analysis)	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator (Quantitative Assessment)	Progress to Date	Comments / Potential Barriers to Implementation
													the whole borough			the AQ in the Borough.
15	5	Continue introducing electric cars as pool vehicles	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles	2015	2029	BFC	BFC	NO	Not Funded	£100k - £500k	Implementation	Reduction in background NO ₂ , concentrations across the borough	Reduce vehicle NO _x emissions	Pool cars and van now on fleet. 18 fast EV charge points being installed in new depot 2024.	There are charge points at Time Square and the new depot, which will facilitate more electric fleet vehicles, reducing the overall carbon footprint of the council. The fleet team are looking to move to electric vehicles once their lease on the petrol cars expires. 2 electric pool cars and van now on fleet.
16	5	Increase in EV chargers	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel 176recharging	2020	2029	BFC, constituent councils, Chargepoint operators (CPOs). Silva Homes	Govt (OZEV) and private sector (CPOs)	NO	Some funded, further funds likely	~£500k - £2 million	Some delivered, some planned	A reduction in NO ₂ concentrations to below the objective levels in the whole borough	More EV vehicles charging the in borough	36 charge points installed across 12 council community car parks using ORCS fund. 12 charge points in town centre multi-storeys. LEVI bid in progress, and possible new ORCS bid 2024	There are numerous considerations and variables depending on type of charge points, location, and feasibilities. Procurement will be needed to spend Govt LEVI and ORCS funds, along with securing a supplier for a concession contract to install EVCPs in some of our commercial car park sites. This is a fairly major and long-term action. 5 locations for fast / rapid chargers identified in Crowthorne at present.
17	6	Feasibility Study into the Lane Rental Scheme under NRSWA s74A	Traffic Management	18UTC, Con19gestion management, traffic reduction	2023	2029	BFBC Highway Authority	BFBC Highway Authority	NO	Not Funded	< £10k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the whole borough	Quicker completion of road works in the AQMA	Feasibility study	Whether it is adopted by the borough
18	6	Parking Car sticker Advertising	Public Information	Via other mechanisms	2023	2029	BFBC/Parking Enforcement	BFBC/Parking Enforcement	NO	Not Funded	< £10k	Planning	A reduction in NO ₂ concentrations to below the objective levels 1in the whole borough	Reduction in idling in the local car parks and the rest of the Borough.	Ticket machines located for advertising.	Advertising on the back of parking stickers, the advantages of anti-idling. If funding is available may be able to increase to petrol filling stations and buses.

Measure No.	Priority Score (Cost Benefit Analysis)	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator (Quantitative Assessment)	Progress to Date	Comments / Potential Barriers to Implementation
19	6	Helping Business reduce emissions	Promoting Travel Alternatives	Personalised Travel Planning	2023	2029	BFBC	BFBC/Business	NO	Not Funded	<£10k	Planning	A reduction in NO ₂ concentrations to below the objective levels in the whole borough	Direct relationship with the amount of business who sign up and achieve the rewards.	Planning	Tools to help would be ECO Stars - Fleet Recognition Scheme (ecostars-uk.com)

7. Appendix A: Response to Consultation

Table 7.1- Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
Planning Policy	Internal BFC team	Regarding access for deliveries along the rear of the shops and properties - There is no objective or policy, for deliveries along the rear of shops in the emerging Bracknell Forest Local Plan.
Planning Policy	Internal BFC team	Advice to update policy dates and policy content.
National Highways Programme Development Team (Strategy)	National Highways	Pleased to see that road systems which encourage continual traffic flow rather than stopping and starting is recognised, as this may help to mitigate the impact of diesel and heavy goods vehicles. We therefore welcome the improvements to Dukes Ride/Bracknell Road junction. We would also welcome local initiatives that will encourage a shift away from car use. Incentives should also be provided to encourage workers to cycle or use public transport. Also, if policies are in place to encourage workplaces to start at different times, this may reduce congestion at peak times and thus aid in the improvement of air quality.
Climate Change and Sustainable Living	Internal BFC team	Advice to update policy dates and policy content.
Crowthorne Parish	Local Government	It must be noted that there is currently no plan or funding, to provide a bus service and the lack of local

Consultee	Category	Response
Council		integrated transport is being considered between BFC, CPC and the developers.
Crowthorne Parish Council	Local Government	<p>The report acknowledges vehicles that stop/start and idle at the mini roundabouts at each end of the High Street, and the light good vehicles when they are making deliveries to the shops along the High Street. If these vehicles are stopping in a manner that is blocking the carriageway, then cause traffic jams along the High Street.</p> <p>Looking at the areas of maximum emissions they occur at the beginning of Bracknell Road before the BP garage. It is suggested that this is due to queues caused by: a) traffic turning right into Lower Broadmoor Road, b) traffic held up at the bus stop, c) traffic turning right into the BP garage and d) traffic queuing to turn south into the High Street.</p>
Crowthorne Parish Council	Local Government	<p>Measure 1 suggests a left filter into the High Street and moving the bus stop on Bracknell Road - both to be commended. However, banning a right turn into the petrol station would eliminate one of the above. Vehicles requiring access could turn at the Old Wokingham Road roundabout. Suggesting a 20mph limit along Bracknell Road (Measure 5) seems counter-productive given the above unless it is intended to stop sharp acceleration.</p>
Crowthorne Parish Council	Local Government	<p>The proposal for a Freight Quality Partnership is to be welcomed as the major source of pollution in the High Street is light delivery vehicles and queuing traffic caused by deliveries particularly at peak time. With the addition of roadworks, this is often the cause of traffic back-up at the High St / Bracknell Road junction and together contribute to this traffic buildup, therefore causing idling and pollution.</p>

Consultee	Category	Response
Crowthorne Parish Council	Local Government	Feasibility Study into the Lane Rental Scheme under NRSWA s74A. If this reduces the queuing due to road works, it is to be welcomed. Certainly, there needs to be more co-ordination of roadworks. That includes the wider Crowthorne of Wokingham Without, which requires managing with Wokingham BC.
Crowthorne Parish Council	Local Government	Increased provision of EV charging points however there is little useable space for such an initiative. Lidl has given over 2 spaces for EV charging. The Napier Road toilets were pulled down and Crowthorne was promised by BFC a car parking area dedicated to EV charging. Sadly, the promise has not materialised to date.
Crowthorne Parish Council	Local Government	Query raised regarding the no.124 bus service from Wokingham, the suitability for use of vehicle and the route.
Crowthorne Village Action Group	Non - profit organisation and non- political residents' association	<p>Concern that air quality monitoring is not being carried out at many locations where new residential development is planned in the vicinity of Crowthorne.</p> <p>No monitoring has been undertaken by the roundabout at the junction of Old Wokingham Road and Nine Mile Ride. Unofficial monitoring has shown that this location is already close to the legal limit of 40microgm/cc. There will be increased traffic from 1000 homes at Buckler's Park, potentially 226 homes at Beaufort Park and the proposed 800 new homes along Old Wokingham Road. It is suggested that PPP should institute its own monitoring at this location, to identify the current levels.</p> <p>(Comment noted, and Diffusion Tube 127 measures the NO₂ from traffic from the Old Wokingham Road</p>

Consultee	Category	Response
		and Nine Mile Ride approach to the AQMA).
Crowthorne Village Action Group	Non - profit organisation and non- political residents' association	Request to acknowledge the Local Plan and the demand of major development in Crowthorne.
Crowthorne Village Action Group	Non - profit organisation and non- political residents' association	<p>Regarding measure 2 - This is a great concept with potential to reduce congestion due to vehicles queuing behind delivery vehicles.</p> <p>The provision of a Service Yard to reduce delivery vehicles parking in the High Street was first proposed over 20 years ago and has been included as an action item in the air quality action plan since 2013.</p> <p>However, as far as we can identify, no one at Crowthorne Parish Council or the Planning department of Bracknell Forest Borough Council is actively working on this plan. Hence there has been no progress over the past 10 years.</p> <p>We suggest more information on the proposal be included in this action plan, including an indicative map of possible location and identification of department of BFC which will be responsible for pursuing it. The map could be used to inform decisions on planning applications which may impinge on the proposed location.</p> <p>Alternatively, if it is not going to be pursued by anyone, the mention of a service road should be removed from the action plan. Suggesting it as a possible mitigation but not following up could be misleading for DEFRA.</p>
Crowthorne Village Action Group	Non - profit organisation and non- political residents' association	Regarding Measure 12 - Roadworks are a frequent cause of traffic congestion in the High Street. Reducing the time span has a direct and proportionate effect on reducing the impact on congestion. It is

Consultee	Category	Response
		<p>not clear why this is not estimated for completion until 2029. Can anything be done to speed up the preparation and implementation of this measure?</p>
<p>Crowthorne Village Action Group</p>	<p>Non - profit organisation and non- political residents' association</p>	<p>Regarding Measure 18 - In view of the already planned significant growth, BFC should adopt a new planning policy, until it has been demonstrated that the growth already in the plan can be accommodated without breach of the statutory levels of NO₂</p> <p>, there be a presumption against additional developments which will add pressure on Crowthorne High Street.</p> <p>Individual decisions on planning applications are purely based on conforming with planning policy and until there is a clear policy, air quality will continue to be a low priority in determining planning applications.</p>
<p>Bracknell Forest Corporate Management Team</p>	<p>Local Government</p>	<p>Requested the addition measure (number 7) to be added, regarding a feasibility study into the High Street closure.</p>
<p>DEFRA</p>	<p>Central Government</p>	<p>Comments (ref: AQAP23-2026) regarding, Source Apportionment and Cost Benefit analysis</p>

8. Appendix B: Reasons for Not Pursuing Action Plan Measures after the Consultation

Table 8.1 - Action Plan Measures Not Pursued and the Reasons for that Decision.

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
n/a	n/a	n/a

9. Appendix C: Ideas from the Stakeholders meetings

Table 9.1 - Brainstorm Ideas from the Action Plan Stakeholder meetings

Idea description	Incorporated in Action Plan
Visual, real time air quality monitoring (Air Sensors), such as traffic lights or faces.	N
Encouraging more walking and cycling – finger post signs to give times, e.g., 5 mins walk to the station.	Y
Cycle lanes in the Golden Triangle (Dukes Ride, High Street, Waterloo Road).	Y
More bike racks in the shopping centre of High Street (non in Lidl and Co-Op car parks).	Y
Parklets - wooden seats with planters e.g., outside library.	N
Blue green urban study.	N
Sustainable routes to school provision of crossing points, link this to Eco awards, Golden Triangle, signposting etc.	Y
Bucklers Park, as no school on the estate, no provision of safe routes to school from this site.	N
Service road deliveries – private land. Can anything more be done via the planning process?	Y
No Waiting restrictions exist for the High Street, no deliveries between 6.30-8.30am and 4.30-6pm, on the High Street? Who is enforcing? Applies to deliveries as well as shoppers – need comms. What about outside these times as the traffic continues along the road.	Y

Liaison with local businesses – with BFBC economic officer and CPC to discuss what they need to help with deliveries.	Y
Roadworks to be carried out more quickly – requesting High Street to be a road in BFC where this will apply – link with Highways.	Y
No turning right into BP station? Queuing due to cars blocking road as petrol station full. However, would this make the traffic queue further in the hot sport area. Perhaps no right turn out?	N
Improving traffic flow along High Street as well as the junctions/roundabouts.	Y
Speed limit reduced to 20mph, exactly where, can it be extended?	Y
Cycle path on High Street – feasible? Space?	N
Effect of rerouting traffic to Broadmoor site (since Aug 2023), what is the traffic impact.	N
Encouraging use of other forms of transport - Buses – connecting other parts of the village, working with BFBC and Wok BC, east to west to include train station, link Bucklers Park to station, issue funding.	Y
Bike Park in Crowthorne	Y
Cycling – bike park, E-Bike Park, safe storage, routes into village centre and links to leisure routes (west of High St)	Y

Consider other options such as Crowthorne Minibus or Good Neighbours, to provide service into village on e.g., market day.	N
EV charging – none in Co-op car park.	Y
What grants are there for EV charging point installation?	Y
Education – e.g., good car maintenance, no idling, fuelling at night in summer, correct tyre pressure, reducing trips etc.	Y
CROW document – wildlife margins, buzz stops, planters.	N
Deliveries – vehicle tyres, restricting times, e-cargo bikes.	Y
Reducing idling.	Y
Vehicle share with Wokingham Without PC	N
NPPF street trees for new schemes.	N
Education with businesses and residents through local channels e.g., Crowthorne Eye publication	Y
Health Walks and Health Promotion.	Y
Car Parking ticket – advertise on the rear health benefits of anti-idling or other AQ facts.	Y

<p>Bus Tickets get discount in local shops/coffee etc.</p>	<p>Y</p>
<p>Bus stop alternations for prevent queuing.</p>	<p>Y</p>
<p>E-Cargo Bikes for local business.</p>	<p>N</p>

10. Appendix D: Crowthorne AQMA Maps

Figure 10.1 - Map of Crowthorne AQMA and the Monitoring locations (North)

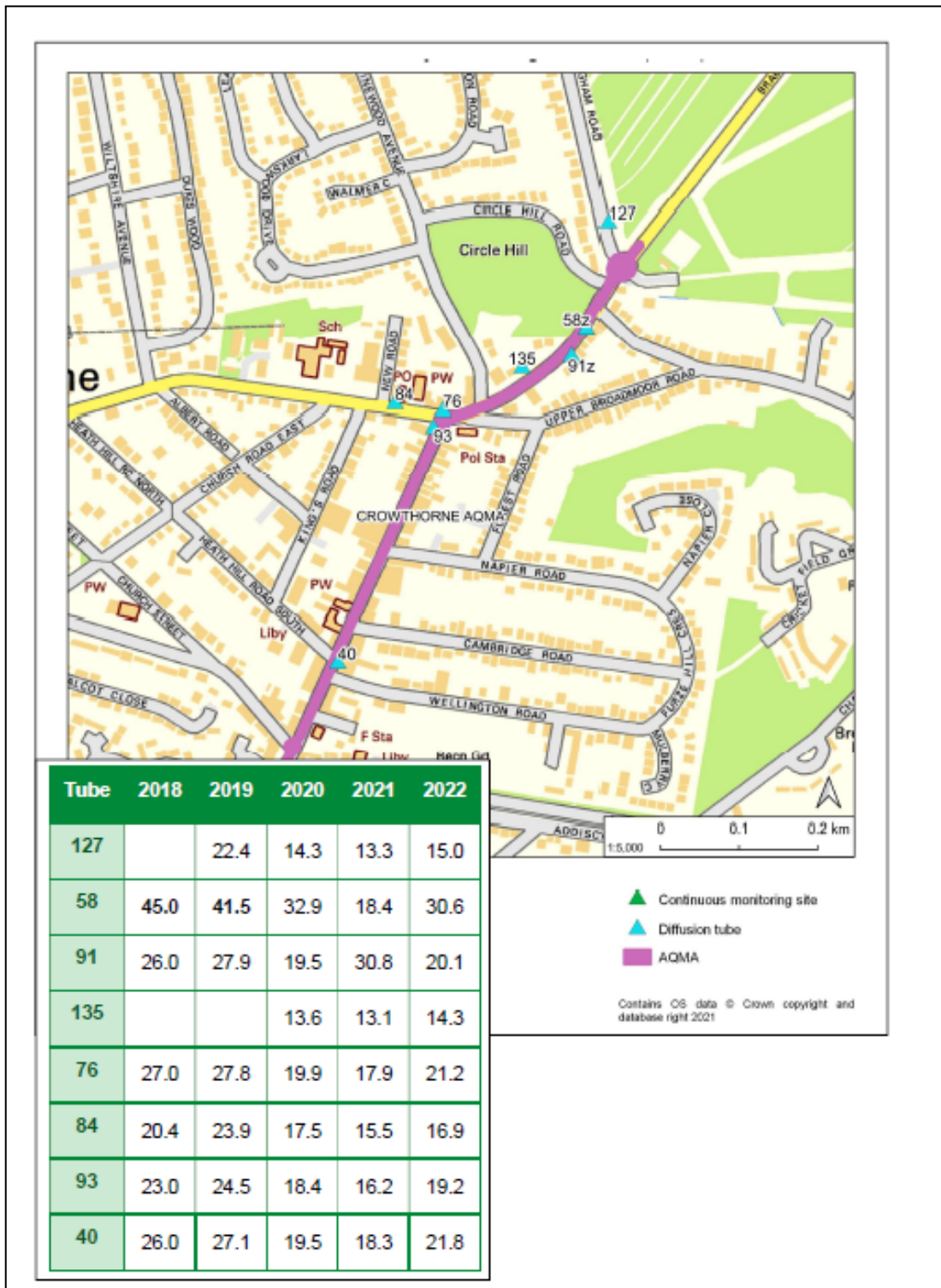
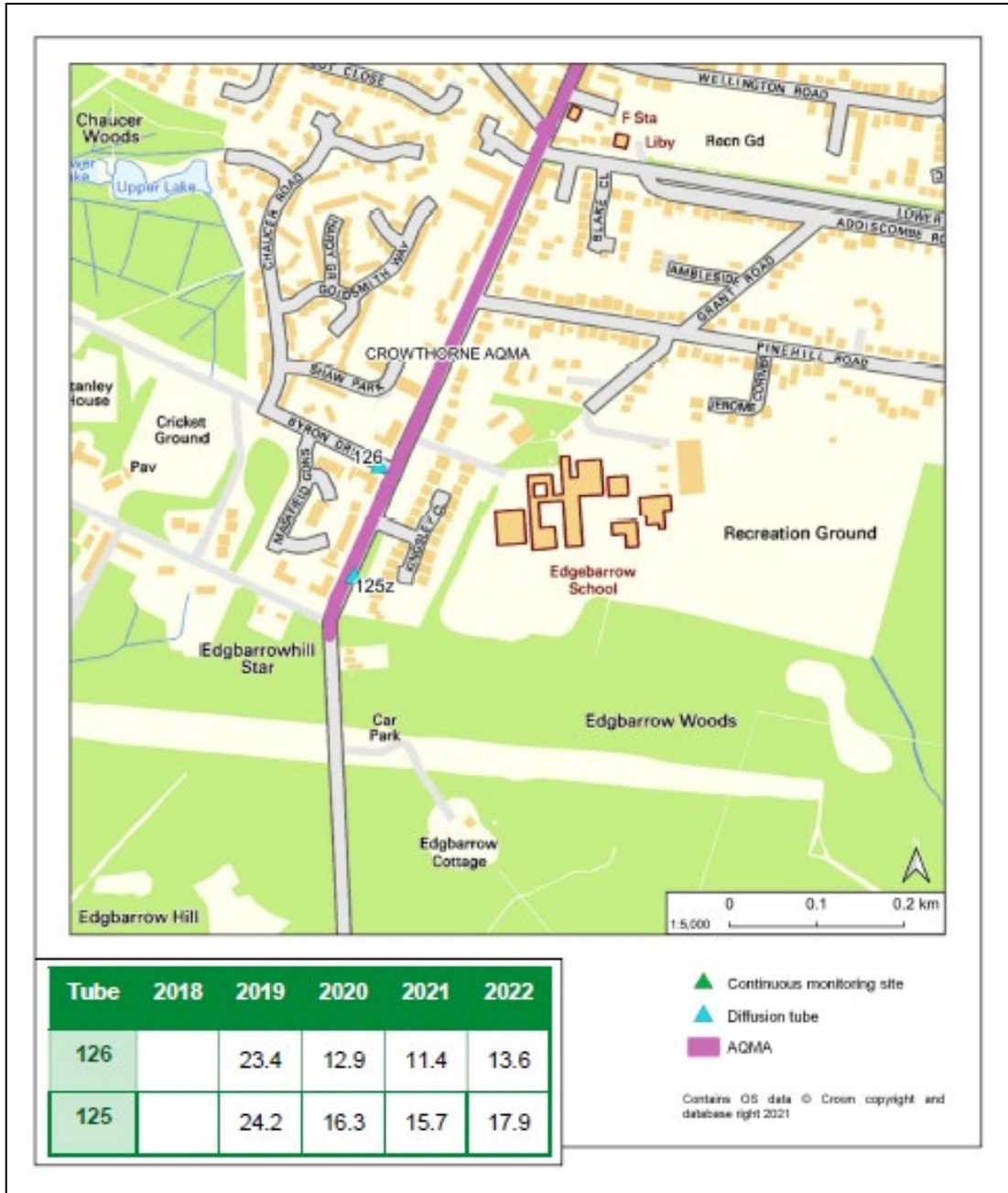


Figure 10.2 - Map of Crowthorne AQMA and the Monitoring locations (South)



11. Appendix E: Cost Benefit Analysis

Measure Number	Measure	AQ Benefit	Costs	Measure Status	Funding	AQMA Impact	Overall Rating	Priority
1	Improvements to Dukes Ride/Bracknell Road junction	20	5	5	20	15	65	1
2	Enforcement of the Parking Regulation in Crowthorne High Street	20	10	5	10	15	60	2
3	Feasibility Study for a Cycle path in the Crowthorne "Golden Triangle"	10	10	5	20	15	60	2
4	Education, Health Promotion, Behaviour Change Projects, and Environmental Action Days	10	15	15	10	0	50	3

Measure Number	Measure	AQ Benefit	Costs	Measure Status	Funding	AQMA Impact	Overall Rating	Priority
5	Anti-Idling Education/ Enforcement	10	15	15	10	0	50	3
6	Environmental Permitting Regulations	10	15	15	10	0	50	3
7	Feasibility Study into High Street Closures	10	15	5	5	15	50	3
8	Feasibility of the delivery plan and provision of rear service yard to reduce number of delivery vehicles unloading in Crowthorne High Street	10	10	5	5	15	45	4
9	Feasibility Study for bike parking with in Crowthorne	10	10	5	5	15	45	4

Measure Number	Measure	AQ Benefit	Costs	Measure Status	Funding	AQMA Impact	Overall Rating	Priority
10	Feasibility Study for 20 mph zone in the AQMA along Bracknell Road	10	10	5	5	15	45	4
11	FS Finger Signs indicating cycling and walking routes in Crowthorne	10	10	5	5	15	45	4
12	Bus User Incentives	10	15	15	5	0	45	4
13	Grants for help with projects within the AQMA and Borough	20	15	5	5	0	45	4
14	Air Quality Planning Conditions	10	15	15	5	0	45	4
15	Continue introducing electric cars as pool vehicles	10	5	15	10	0	40	5
16	Increase in EV chargers	10	5	15	10	0	40	5

Measure Number	Measure	AQ Benefit	Costs	Measure Status	Funding	AQMA Impact	Overall Rating	Priority
17	Feasibility Study into the Lane Rental Scheme under NRSWA s74A	10	15	5	5	0	35	6
18	Parking Car sticker Advertising	10	15	5	5	0	35	6
19	Helping Business reduce emissions	10	15	5	5	0	35	6

Scoring Key

<p>Potential air quality benefits</p> <p>Low (0) – Study where no immediate action all be taken.</p> <p>Medium (10) – a small measurable change in NO₂.</p> <p>High (20) – a larger measurable change in NO₂;</p>	<p>Cost</p> <p>Low (15) <£10k.</p> <p>Medium (10) £10K-£100K.</p> <p>High (5) >£100K</p>	<p>Measure Status</p> <p>High (15) Implementation</p> <p>Medium (5) Planning</p>
<p>Funding</p> <p>High (20) – Funded;</p> <p>Medium (10) -Partial Funded</p> <p>Low (5) – no funding or feasibility study</p>	<p>AQMA Impact</p> <p>High (15) – in Crowthorne</p> <p>Medium (0) – for the whole borough</p>	<p>Priority</p> <p>Higher 1 & 2</p> <p>Medium 3 & 4</p> <p>Lower 5 & 6</p>

12. Appendix F. Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less

13. Appendix G. References

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