

Local Authority:	Bracknell Forest Council
Reference:	ASR-1245
Date of issue	28th July 2022

Annual Status Report Appraisal Report

The Report sets out the Annual Status Report, which forms part of the Review & Assessment process required under the Environment Act 1995 and subsequent Regulations.

Bracknell Forest Council have declared 2 Air Quality Management Areas (AQMAs) across the district: AQMA “Area 1: The Bagshot Road (A322) Horse and Groom Roundabout Downshire Way AQMA” (Bracknell AQMA) and AQMA “Area 2: The Bracknell Road (B3348) and Crowthorne High Street, Crowthorne AQMA”, both were declared in 2011 for the exceedance of the annual mean objective for NO₂ as a result of traffic emissions.

Automatic monitoring was undertaken at 1 site within the council during 2021, Downshire Way. This automatic monitoring station is located within the Bracknell AQMA and monitors both NO₂ and PM₁₀. Downshire Way automatic station met the annual mean NO₂ and PM₁₀ objectives with concentrations in 2021 of 29.9µg/m³ and 17.1µg/m³ respectively. The automatic station also met the hourly and daily mean objectives for both NO₂ and PM₁₀ respectively. Data capture during 2021 was above 75% at the analyser so annualisation was not required.

Non-automatic (passive) monitoring of NO₂ was completed at 26 sites during 2021, with triplicate monitoring undertaken at 4 sites, one of which was co-located with the automatic station Downshire Way. No exceedances of the annual mean objective for NO₂ were measured. Data capture during 2021 was good at all monitoring locations except one where annualisation was required. In 2020, NO₂ was monitored at 28 sites, however as detailed within the ASR, two monitoring locations were decommissioned in 2021 as they were located on roadsides which were not representative of sensitive receptors and had measured concentrations below the AQO for the last 5 years.

Detailed and robust QA/QC procedures for both the automatic and passive monitoring were applied during 2021. Routine calibrations at the automatic analyser were undertaken monthly, with daily data inspections and appropriate data calibration and ratification procedures. Independent site audits are also undertaken. The NO_x analysers converters and ability to reduce nitrogen dioxide to nitric acid at the Bracknell, Downshire Way analyser was 99.3% efficient at an NO₂ concentration of 322 ppb. This is a good result. The difference between the states and calculated factors for PM₁₀ was 0.45%. PM_{2.5} estimates based on the PM₀ results were also provided in accordance with TG16.

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QA/QC procedures were also undertaken for passive diffusion tube monitoring. Gradko laboratory were used to supply and analyse the NO₂ diffusion tubes, however the ASR does not detail the methodology of analysis. Diffusion tube annualisation was undertaken at one site which has been undertaken appropriately. A local bias adjustment factor of 0.72 has been used for all monitoring locations, however no justification behind the decision to use the local factor over a national factor was provided. No monitoring sites required distance correction.

Bracknell Forest Council have continued to illustrate in detail the measures completed and in progress to address air quality within its administrative boundaries. The main focus of these measures is within the AQMA. The ASR notes that the majority of measures have been implemented and they are currently waiting for certain highways measures to be complete to then gather data to either revoke the AQMAs or produce a new AQAP.

Some of the key measures implemented in 2021 were the A3095 improvements, pedestrian cycling crossings, anti-idling competition and a successful bid to deliver further measures to promote cycling and walking. Measures to improve PM_{2.5} have also been included. Some of these measures to improve PM_{2.5} include promoting low emission council vehicles, cycle networks and promoting cycling and walking as well as conditioning the use of Bonfires for commercial development through the planning process.

The report also provides an indication of the effect COVID-19 has had on 2021 data with traffic comparison on monthly monitoring data comparisons for 2019, 2020 and 2021 at the automatic station. This is encouraged as it provides a good understanding of how traffic levels may have affected the monitoring data in 2021.

On the basis of the evidence provided by the local authority the conclusions reached are acceptable for all sources and pollutants, however the report should ensure that the correct data is presented in all tables, the bias adjustment is justified, and analysis methodology is detailed as shown in the comments below in future ASRs. Bracknell Forest Council should submit an Annual Status Report in 2023.

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Commentary

The report is detailed and provides suitable information on measures to tackle air quality and the information specified in the Guidance. The following comments are designed to help inform future reports.

1. Overall, the council have presented a detailed review of the existing air quality within Bracknell Forest.
2. Although the template has been used, the QA/QC procedures for the automatic and diffusion tubes are presented within 'Section 2 Actions to improve Air Quality' as well as in the relevant section in Appendix C. There are also some formatting issues in the contents page. If there are issues with using the template, the local authority are advised to contact the LAQM Helpdesk for assistance. The template should be used for future ASRs.
3. Values for the annual mean NO₂ concentration in 2021 within the AQMA in Table 2.1 are not the maximum concentrations in each AQMA and also do not match those within the ASR Excel Data table. All data in tables should be carefully reviewed prior to submission of future ASR's.
4. The current AQAP was published in 2014, the Council is aware that the AQAP is in need of a review. However, pending the completion of certain highways measures there is potential to revoke the AQMAs. As such no progress on a new AQAP has been made. Measures to improve air quality across the council should be continually reviewed and progressed.
5. Table A.2 states that no diffusion tubes were co-located with a continuous analyser, when it is understood that one triplicate site 86x, 86y and 86z was co-located with the automatic station as a local bias adjustment was calculated.
6. The ASR confirms that Gradko has been used as the laboratory for diffusion tube analysis. However, the ASR does not present the analysis methodology used within the ASR. This should be provided in future ASR's.
7. The ASR does not [state make clear](#) that the monitoring was undertaken in accordance with the Defra Diffusion Tube Calendar. However, it is shown in the DTDPT which has been uploaded that is has been undertaken in accordance with the calendar. Whether monitoring was undertaken in accordance with the Defra Diffusion Tube Calendar should be made clear within the text of future ASR's.

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8. Monitoring locations and AQMA plan maps are provided, however the AQMA boundary could be made clearer on the plans as the colour used is very similar to the colour of the roads on the map. a different colour for the AQMA boundary would be useful for future ASR's.
9. No justification is provided for the choice to use the local bias adjustment factor. The national factor was used in the previous ASR and the national factor is higher than the calculated local factor of 0.72. Justification behind the choice of a national or local factor should be provided in future ASR's.
10. There is a high level of detail on the measures currently implemented or completed and their potential impact on Air Quality across the council. This level of detailed is encouraged for future ASR's.
11. The ASR has included an additional section on "The Pandemic and NO₂" within the ASR. This section details the comparison of 2019, 2020 and 2021 monthly data from the Automatic Station as a bar chart. This provides a basic overview of how COVID-19 has effected 2021 monitoring data when compared to pre-pandemic 2019 concentrations. This is welcomed.
12. The ASR has been signed off by a Director of Public Health and the manager of Public Protection Partnership. This is welcomed.
13. Robust and accurate QA/QC procedures were applied for the automatic station.
14. The Council has included discussion and presented the NO₂ trends observed in both of the AQMAs located within the Council's boundaries.
15. The comments from last year's ASR have been addressed.
16. The report is a good source for members of the Public to find out about air quality in their area. The Council should continue their hard work whilst addressing the comments above.

This commentary is not designed to deal with every aspect of the report. It highlights a number of issues that should help the local authority either in completing the Progress Report adequately (if required) or in carrying out future Review & Assessment work.

Issues specifically related to this appraisal can be followed up by returning the attached comment form to Defra, Welsh Assembly Government, Scottish Government or DOE.

For any other queries please contact the Local Air Quality Management Helpdesk:
 Telephone: 0800 0327 953
 Email: LAQMHelpdesk@bureauveritas.com

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Appraisal Response Comment Form

Contact Name:	
Contact Telephone number:	
Contact email address:	

Comments on appraisal/Further information: