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Local Authority:	<b>Norwich City Council</b>
Reference:	<b>ASR20-0735</b>
Date of issue	<b>December 2020</b>

## **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.

Norwich City Council currently have a single Air Quality Management Area (AQMA), Central AQMA, which encompasses Norwich city centre (broadly following the inner link road). The AQMA is declared for exceedances of the NO<sub>2</sub> annual mean objective.

Automatic monitoring was undertaken at one site within the city during 2019 at Castle Meadow within the AQMA. There is also an urban background station at Norwich Lakenfields which is part of the AURN. The annual mean NO<sub>2</sub> concentration at the Castle Meadow site was 41 µg/m<sup>3</sup> which exceeds the annual mean air quality objective. However, this is a considerable decrease from 2018 where NO<sub>2</sub> concentrations at the site were 54 µg/m<sup>3</sup>. The monitoring location is on a bus & taxi only street and there have been no significant changes to bus timetabling changes nor bus stop alterations that would cause a decrease in concentrations. However, roadworks on Prince of Wales Road and Agricultural Plain meant that there was a reduction in queuing of buses to exit Castle Meadow to the south. This many have contributed to the decrease in NO<sub>2</sub> seen at the site. The 1-hour mean at this site exceeded 200 µg/m<sup>3</sup> only once in 2019, therefore there was not an exceedance of the 1-hour objective. The Norwich Lakenfields site measured an annual mean concentration of 13 µg/m<sup>3</sup> and no exceedances of the 1-hour mean objective.

Non-automatic (passive) monitoring of NO<sub>2</sub> was conducted at 25 sites during 2019. Following the application of distance correction, there were four diffusion tube sites representative of annual mean exposure that exceeded the NO<sub>2</sub> annual mean objective, all of which are located within the AQMA; DT9 (40.1 µg/m<sup>3</sup>), DT11 (46 µg/m<sup>3</sup>), DT26 (43 µg/m<sup>3</sup>), and DT29 (40 µg/m<sup>3</sup>). There is no discernible trend in NO<sub>2</sub> concentrations between 2018 and 2019, which some locations experiencing considerable decreases in NO<sub>2</sub> (i.e. at Castle Meadow) and some locations experiencing increases (i.e. 3 Riverside Road fell below the objective level for the first time in 2018, but concentrations are now in excess of the annual mean objective).

Changes to the monitoring strategy have been made in response to road changes, which have been aimed at restricting general traffic from travelling through the city centre. In 2019, two NO<sub>2</sub> diffusion tube monitoring positions were removed where levels have consistently fallen below the AQO. In addition, four new positions were added at locations which are now taking higher loading of traffic as a result of the road changes.

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The annual mean concentration of PM<sub>10</sub> at the Castle Meadow automatic monitoring site was recorded as 19 µg/m<sup>3</sup> (a decrease from last year, 27 µg/m<sup>3</sup>) and there were five 24-hour periods within 2019 where the 24-hour mean was greater than 50 µg/m<sup>3</sup>, thus complying with the 24-hour mean objective. For the Norwich Lakenfields site there were four 24-hour periods within 2019 where the 24-hour mean was greater than 50 µg/m<sup>3</sup> and the annual mean concentration was 14 µg/m<sup>3</sup>. The annual mean PM<sub>2.5</sub> concentration at both sites continues to be 10 µg/m<sup>3</sup>.

The Council's 2020 Action Plan is currently being reviewed, however all measures in the AQAP have been given approval by councillors and Norfolk County Council. The new AQAP focuses mainly on road infrastructure changes designed to further divert general traffic away from the congested city centre and reallocate more road space to walking and cycling. An example of road infrastructure changes is the implementation of a new road layout and junction arrangements in the Chapel Field area of Norwich. This scheme complimented the restriction of private vehicle passage through the city centre and revised the traffic flow to prioritise bus access. Policies have been introduced to encourage the use of public transport and cycling within the city. Bus frequency and cycle routes have been improved within the city.

QA/QC of monitoring data has been discussed, and the national bias adjustment factor selected with details of the methodology (i.e. spreadsheet version and a web page link) provided. The Council have also included the local bias adjustment factor for comparison. Distance correction was applied to sites, but no example calculations were provided. Annualisation was not required.

On the basis of the evidence provided by the local authority the conclusions reached are acceptable for all sources and pollutants. Following the completion of this report, Norwich City Council should submit an Annual Status Report in 2021.

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## Commentary

The report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports.

1. It is very encouraging to see that the Council have continued to review the locations of their monitoring sites in relation to recent changes to the roads and relevant exposure. The removal of sites with continuously low concentrations and introducing new sites is supported.
2. The Council have provided a very detailed ASR, with pollutant trends, measures and activity within Norwich discussed extensively. In particular the Council's discussion of NO<sub>2</sub> concentrations within the city is to be commended. Not only are trends discussed but the Council attempt to find potential causes for the changes in NO<sub>2</sub> concentrations. This demonstrates the Council's active engagement in trying to understand and tackle air quality issues within their city. The level of detail provided within the ASR is welcomed, and the Council are encouraged to continue their good work in future ASRs.
3. The Council complete a co-location study at CM2 and state that this site is not representative of the majority of diffusion tube locations within the city and therefore have used the national factor. As the Council have other continuous monitoring locations within the city, such as CM1, it is recommended for a co-location study to also be conducted here so that bias factors for both roadside and urban background locations will be available.

Outstanding comments from last year's appraisal:

1. The Council has a number of measures in place to address PM<sub>2.5</sub> which demonstrates their commitment to working with Public Health England to address this pollutant. It would be useful if the Council could make reference to the Public Health Outcomes Framework and their relevant local indicator for PM<sub>2.5</sub> in this section of the report.
2. Distance corrections were conducted for sites not representative of relevant exposure using the "NO<sub>2</sub> fall off with distance calculator" available on the LAQM website. Calculations could be provided in future reports.

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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@uk.bureauveritas.com](mailto:LAQMHelpdesk@uk.bureauveritas.com)

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## Appraisal Response Comment Form

Contact Name:	
Contact Telephone number:	
Contact email address:	

**Comments on appraisal/Further information:**