

Cherwell District Council

Overview and Scrutiny Committee

6 September 2022

Air Quality Update

Report of Assistant Director Regulatory Services and Community Safety

Purpose of report

This report provides Council's Overview and Scrutiny Committee with an update on the air quality monitoring carried out across the district in 2021 and the air quality data obtained, the current district Air Quality Action Plan, and other air quality related matters. Air quality monitoring data shows significant air quality improvements over the last 5-year period in the air quality management areas of the District.

The Council's Business Plan includes a specific commitment to "Work with partners to improve air quality" within the Supporting Environmental Sustainability priority.

1. Recommendations

The meeting is recommended:

- 1.1 To note the work undertaken by the Council and its partners in relation to air quality in the District and the 2021/22 air quality monitoring data.

2. Introduction

- 2.1 Part IV of the Environment Act 1995 established the legislative framework for local air quality management. Under the Act, the Council has a statutory duty to review and assess air quality in the district against national air quality objectives and co-ordinate actions to improve air quality where exceedances are identified.

- 2.2 Where an air quality objective is unlikely to be, or is not being met an Air Quality Management Area (AQMA) must be declared. Once an AQMA has been declared the Council is required to develop an Air Quality Action Plan (AQAP) outlining the measures required to improve air quality in that area.

- 2.3 Four AQMAs have been declared in Cherwell for exceedances of the annual mean air quality objective for nitrogen dioxide. The AQMAs are at:

- AQMA No.1 - Hennef Way, Banbury
- AQMA No.2 - Horsefair/North Bar, Banbury
- AQMA No.3 - Bicester Road, Kidlington
- AQMA No.4 - Kings End/Queens Avenue, Bicester

- 2.4 Nitrogen dioxide from road transport sources has been identified as the pollutant of concern in Cherwell.

3. Report Details

- 3.1 Nitrogen dioxide levels are measured using diffusion tubes. The tubes are changed monthly and returned to a laboratory for analysis. The monthly results are used to calculate the annual mean for each site. The annual mean air quality objective for nitrogen dioxide against which the data is assessed is $40\mu\text{g}/\text{m}^3$.
- 3.2 In 2021 monitoring was undertaken using diffusion tubes at 42 locations across the district. The measured levels in the four AQMA's for 2021 and also the previous four years are shown in Table 1.

Table 1: Annual Mean Nitrogen Dioxide Monitoring Results ($\mu\text{g}/\text{m}^3$)

AQMA	2017	2018	2019	2020	2021	Status	Trend
Hennef Way, Banbury	91.6	81.2	77.5	57.9	58.6	Red	↓
Horsefair/North Bar, Banbury	41.8	38.7	38.6	30.0	30.4	Green	↓
Bicester Road, Kidlington	41.0	37.9	33.6	26.6	26.6	Green	↓
Kings End/ Queens Avenue, Bicester	41.7	41.9	41.5	34.5	34.9	Green	↓

- 3.3 In AQMA No.1 (Hennef Way, Banbury) nitrogen dioxide concentrations have been steadily falling since 2018, but continue to show exceedances of the annual mean objective level. The 2021 level, however, remained at roughly the same level as was measured in 2020 during lockdown.
- 3.4 In AQMA No.2 (Horsefair/North Bar, Banbury) there was a very small (below $1\mu\text{g}/\text{m}^3$) increases in nitrogen dioxide concentrations when compared with the results from 2020, and remain a significant amount below the annual mean objective level.
- 3.5 In AQMA No.3 (Bicester Road, Kidlington) the measured concentration remained similar to the 2020 level, and more than 10% below the objective level for a third year. This is indicative of a long-term drop below the annual mean objective, and if the level remains similar during 2022, we will need to review whether the AQMA should remain in place or be revoked.
- 3.6 In AQMA No.4 (Bicester) the nitrogen dioxide concentration remained consistent with the levels measured in 2020, and lower than the annual mean objective level for the second year running.
- 3.7 Overall the general trend in nitrogen dioxide concentrations across the district was downwards.
- 3.8 The full monitoring data for 2021 can be found in the 2022 Air Quality Annual Status Report on the air quality management page of the Council's website at <https://www.cherwell.gov.uk/downloads/download/1069/air-quality-management>
- 3.9 Councils are required to submit Annual Status Reports (ASR) to the Department of Environment, Food and Rural Affairs (Defra) each year for their appraisal. The ASR

includes a review and assessment of the previous year's monitoring data, and also an update on the actions in the AQAP. The 2022 report was submitted to Defra by the 30 June deadline and we are waiting to receive feedback on their appraisal.

Air Quality Action Plan

- 3.10 The AQAP was agreed by the Executive on 6 March 2017.
- 3.11 The AQAP is reviewed annually to check progress on the agreed actions, but also to consider any additional measures that could be included. A review of the agreed actions is being undertaken in consultation with Oxfordshire County Council, the Planning Policy team, and Environmental Services.
- 3.12 The latest AQAP is attached at Appendix 1. This includes comments on the progress to date, new initiatives, and actual or estimated completion dates where known.

Air Quality Grant Projects

- 3.13 Grant funding of £17,300 was secured by the Council under the Defra 2020/21 Air Quality Grant Scheme. Grants were awarded towards projects for raising awareness of air quality. The bid was based on the purchase of portable air quality monitors and promotional material such as anti-idling signs. The monitors will measure nitrogen dioxide, particulate matter (both PM10 and PM2.5), as well as sulphur dioxide and ozone. Two monitors have been set up at the school drop off points at Hanwell School in Banbury and St Edburg's School in Bicester who have agreed to participate in the project. Two monitors have also been set up in the Hennef Way and Bicester AQMA's.
- 3.14 The data will be used to look at the impact of interventions such as anti-idling and active travel to school campaigns. The data will be made available to the schools to use when covering air quality on the curriculum.
- 3.15 We are continuing to work closely with the Public Health Team at Oxfordshire County Council to link this DEFRA funded project in with the air quality work they are doing with other schools across the County.
- 3.16 Oxford City Council, on behalf of the County Air Quality Group, also secured a grant under the 2020/21 Air Quality Grant Scheme to improve the county wide air quality website. Improvements will include better mapping, live data and more information to help raise awareness of air quality.

Environment Act 2021

- 3.17 The Act establishes a requirement for at least two national air quality targets to be brought forward in secondary legislation by 31 October 2022. The proposed targets for fine particulate matter (PM_{2.5}) are an annual mean concentration of 10 µg/m³ (current objective level 25 µg/m³), and a population exposure reduction (compared to a 2018 base year) of 35%, both to be achieved by 2040.
- 3.18 The four portable air quality monitors set up for the air quality grant project measure PM_{2.5} will therefore provide a guide as to whether the proposed annual mean concentration level of 10 µg/m³ will be met.

- 3.19 There are also proposals to simplify, update and strengthen the local air quality management framework. In particular to ensure that responsibility for solutions to poor air quality is shared across all tiers of local government and designated relevant public authorities.

4. Conclusion and Reasons for Recommendations

- 4.1 The Council will continue to work in partnership with the County Council to monitor air quality in the district and update the district AQAP. Proposals for the new air quality targets are being monitored and the implications will be assessed once those targets are finalised. A further annual update will be provided in 2023.

5. Consultation

- 5.1 No consultation required.

6. Alternative Options and Reasons for Rejection

- 6.1 The council has a statutory duty to work with partners to review and assess air quality in the district and to develop air quality action plans for areas where air quality limits are exceeded. This report provides an update on the work carried out by the Council in this function and therefore there are no alternative options to be explored.

7. Implications

Financial and Resource Implications

- 7.1 There are no financial implications for the Council arising directly from this report. The continuing review and assessment of air quality and the development of the AQAP will be met within existing budgets.

Comments checked by Kelly Wheeler
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Legal Implications

- 7.2 There is a statutory requirement to review and assess air quality and if an AQMA has been declared it is a requirement to produce an AQAP outlining the actions to improve air quality in that area.

Comments checked by:
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Risk Implications

- 7.3 There is an increase in risk to health to prolonged and continuous exposure to poor air quality. This risk is being managed through the service risk register and will be escalated if necessary to the Leadership register

Comments checked by:
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Equalities and Inclusion Implications

- 7.4 Improving air quality across the district will have a positive benefit for all residents and therefore there are no specific equalities and inclusion implications as a result.

Comments checked by:
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Sustainability Implications

- 7.5 Air Quality and Climate Change are interlinked. Monitoring air quality and taking action to positively enhance it is important to the overall environment.

Comments checked by: Ed Potter, Assistant Director Environmental Services
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8. Decision Information

Key Decision: N/a as not an Executive report

Financial Threshold Met: No

Community Impact Threshold Met: No

Wards Affected

All

Links to Corporate Plan and Policy Framework

As outlined above in the main body of the report.

Lead Councillor

Cllr Reeves, Portfolio Holder for Safer Communities

Document Information

Appendix number and title

- Appendix 1: Air Quality Action Plan

Background papers

None

Report Author and contact details

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