

HIGH PEAK BOROUGH COUNCIL

The Executive

10 August 2023

TITLE:	Air Quality - Fairfield Road, Buxton
EXECUTIVE COUNCILLOR:	Councillor Jean Todd - Executive Councillor for Climate Change and Environment
CONTACT OFFICER:	Alicia Patterson - Head of Environmental Health
WARDS INVOLVED:	Fairfield

Appendices Attached

Appendix 1: Map of proposed Air Quality Management Area No.3
Appendix 2: Template Air Quality Management Order No. 3
Appendix 3: HPBC AQMA Review – Detailed Modelling Study 2023

1. Reason for the Report

- 1.1 To ensure that the Council meets its legal duty in relation to the declaration of Air Quality Management Areas (AQMAs) as required by the provisions of the Environment Act 1995.

2. Recommendation

- 2.1 That an Order is made under Section 83 of the Environment Act 1995 declaring an Air Quality Management Area in the form attached at Appendix 2.

3. Executive Summary

- 3.1 The outcome of an assessment of the air quality along part of the A6, Fairfield Road, has concluded that it is necessary to declare an Air Quality Management Area (AQMA), encompassing the properties between Alma Street/A6 Fairfield Road and Bridge Street/Bakewell Road/Fairfield Road Junction and a small section of Bridge Street on the approach to Bridge Street/Bakewell Road/Fairfield Road Junction.
- 3.2 The declaration of the AQMA is required because levels of Nitrogen Dioxide have been found to exceed the National Air Quality Standard.

Under these circumstances the Council is obliged by the provisions of the Environment Act 1995 to declare an Air Quality Management Area. A map showing the extent of the AQMA is provided in Appendix 1.

4. **How this report links to Corporate Priorities**

4.1 This report supports the following Corporate Aims:

Aim 1: Supporting our communities to create a healthier, safer, cleaner High Peak.

Aim 4: Protect and improve the environment including responding to the climate emergency.

5. **Alternative Options**

There are no alternative options to consider, the Council has a statutory duty to declare an AQMA in this instance.

6. **Implications**

6.1 Community Safety - (Crime and Disorder Act 1998)

There are no Community Safety issues arising from this report.

6.2 Workforce

There are no workforce implications arising from this report.

6.3 Equality and Diversity/Equality Impact Assessment

This report has been prepared in accordance with the Council's Diversity and Equality Policies.

There are no equality and diversity implications arising from this report.

6.4 Financial Considerations

There are no initial financial implications arising from this report. All assessments will be carried out as part of the Council's routine work. However, the Council may need to seek support from external bodies should any further modelling be required for the preparation of the action plan. Typically the cost of this would be in the region of £5,000.

6.5 Legal

The Council has a statutory duty to manage air quality in its area and, where nationally set criteria are exceeded, to declare an Air Quality Management Area. Having declared an AQMA, the Council

is obliged to prepare, following due consultation with interested parties, an Air Quality Action Plan. The Plan must subsequently be implemented. Failure to do so may result in legal action being taken against the Council.

6.6 Climate Change

It is essential that the Air Quality is monitored, and improved, in support of the Council's climate change agenda.

6.7 Consultation

Public consultation cannot change the decision of whether or not to declare an AQMA which is a mandatory obligation. However, a public notification/informative exercise will be completed to inform those affected, including:

- Letters and information to all residents affected;
- Web Promotion

6.8 Risk Assessment

It is a statutory requirement that the Council assesses air quality and takes action where appropriate. In this case there is an obligation to declare an AQMA. The necessary process is underway and there are no risks to the Council at this stage of the process.

The European Commission has formally launched infraction proceedings against the UK for breach of nitrogen dioxide limit values under the EU Air Quality Directive. Part 2 of the Localism Act allows the Government to require responsible authorities to pay all or part of an infraction fine. By undertaking its statutory duties and carrying out all reasonable measures to address breaches of the nitrogen dioxide limits, it is anticipated that such fines will not be derogated to this Council.

Mark Trillo

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Web Links and Background Papers

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7. Detail

7.1 Air pollution is associated with a number of adverse health impacts. In common with the rest of the UK, the main sources of air pollution across the

High Peak are emissions from road traffic, in particular Nitrogen Dioxide and Particulate matter. Typically, the highest road-side concentrations of these pollutants are found on roads with high traffic volumes and/or where traffic regularly queues. However, roadside pollution also tends to reduce as you move away from the traffic therefore, when measuring pollution, the Government requires Councils to focus on areas considered to be “relevant exposure”. In other words, it should be representative of the air people actually breathe. This usually means the concentrations at a person’s home (at the façade of the property) but it can also mean another location where people spend a lot of time, such as a town centre or school.

Legal Framework

7.2 Section 82 of the Environment Act 1995 requires a Local Authority to review and assess local air quality in its area against national health based standards for seven key pollutants set out in the Air Quality Regulations 2000 (as amended). The regulatory framework previously set up a phased approach to this work, starting with an Update and Screening Assessment and moving to a detailed assessment where further work is required. In 2016 the regulatory system changed, and the phased approach has been replaced by an Annual Status Report (‘ASR’).

7.3 The Government publishes Air Quality objectives for the individual pollutants, and the Council determines if there is a pollution issue in any area within the Borough by comparing our monitoring data with these objectives. Under Section 83(1) of the Environment Act 1995, where air quality objectives are not being met in any area (or are predicted to not be met), the local authority must proceed and designate this area as an Air Quality Management Area (AQMA).

7.4 Local Authorities are charged with a number of duties in relation to the declaration of an AQMA.

7.5 Action Planning

Once an AQMA has been declared, the local authority has a year in which to publish an Action Plan setting out how the Authority intends to use the measures and powers available to work towards improving the air quality within the AQMA. In instances relating to traffic generated pollution, the powers are primarily available to other organisations, such as the relevant highways authority, rather than the Borough Council. Changes in the statutory policy guidance place a greater emphasis on highway authorities to take a leading role in developing actions plans, when the cause of air quality exceedances is predominantly from roads under their responsibility. As such, the action plan will be developed in conjunction with those bodies.

7.6 Review Action Plan Progress.

Progress on implementing the action plan will be reviewed annually.

7.7 Proposed Air Quality Management Area (AQMA), Fairfield, Buxton.

The Fairfield Road is part of the busy A6, connecting Buxton with Stockport and beyond to Greater Manchester. High Peak Borough Council currently monitors Nitrogen Dioxide (NO₂) air quality at various locations across the Borough, including several locations along Fairfield Road. The Fairfield Road monitoring locations are presented in Figure 1:

Figure 1: Nitrogen Dioxide (NO₂) Monitoring Locations on the A6, Fairfield Road, Buxton



The monitors were installed in 2018 (HP33) and 2019 (H40 -HP44). Two new tubes were also installed at the start of 2023, along the small section of Bridge Street on the approach to the Bridge Street/A6 Bakewell Road/A6 Fairfield Road Junction, but annual results are not yet available.

The results from the five years monitoring along Fairfield road are presented in Table 1 below.

Table 1: Nitrogen Dioxide (NO₂) Monitoring Results for the A6, Fairfield Road, Buxton

Site ID	Location	Distance to Road (m)	Annual Mean NO ₂ Concentration (µg/m ³)				
			2018	2019	2020	2021	2022
HP33	Fairfield Rd	2.9	48.2	45.4	33.8	39.1	37.7
HP41	Fairfield Rd (South Bound)	2.1	-	44.4	34.1	35.4	37.3
HP42	Fairfield Rd (North Bound)	2.2	-	50.3	36.5	43.7	46.0

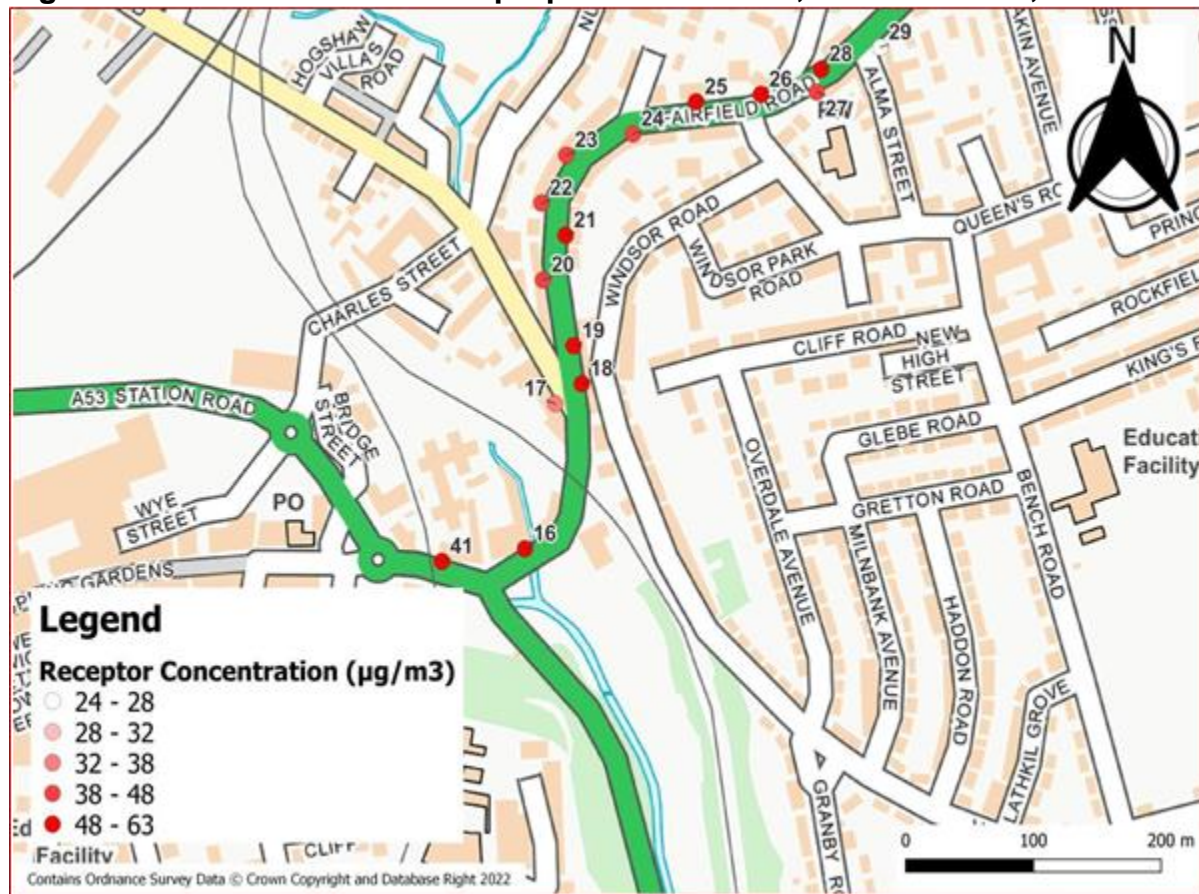
Site ID	Location	Distance to Road (m)	Annual Mean NO ₂ Concentration (µg/m ³)				
			2018	2019	2020	2021	2022
HP43	Fairfield Rd (South Bound)	1.5	-	34.0	26.5	27.3	29.9
HP44	Bulls Head Fairfield (North Bound)	1.6	-	36.2	30.6	36.6	41.2

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**

Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction.

- 7.8 The initial monitoring results from Fairfield Road in 2018 (HP33), indicated that the annual mean levels of Nitrogen Dioxide exceeded the current air quality objective (AQO) of 40µg/m³ highlighting a potential issue. In 2019, the monitoring was expanded to cover a greater extent of Fairfield Road, including both North and Southbound sides, and to confirm the observations of the 2018 results. Results from 2019 confirmed Fairfield Road to be an area of concern, with exceedances in the AQO recorded at 3 (HP 33, 41 & 42) of the 5 monitoring locations.
- 7.9 As a result of the identified exceedance it was decided that a dispersion modelling assessment was required to supplement the local monitoring data and provide a clearer picture of the potential pollutant concentrations predicted across specific receptor locations along Fairfield Road. However, the results of the 2019 data was not available until March 2020 and coincided with the COVID-19 pandemic outbreak, so it was decided to delay the assessment at this time but to continue to monitor.
- 7.10 Nitrogen Dioxide levels decreased significantly in 2020, with no exceedances of the AQO recorded. This was due to the decrease in traffic during the COVID-19 pandemic where, according to the traffic data from the Department for Transport (DfT), traffic in Derbyshire declined by 22% from 2019 to 2020.
- 7.11 In 2021 there was one recorded exceedance (HP42) but all results were higher than 2020, as lockdown restrictions eased and traffic levels increased.
- 7.12 The dispersion modelling assessment was undertaken at the end of 2022 to determine whether an exceedance of an air quality objective is likely at properties not directly monitored and the potential geographical extent of that exceedance.
- 7.13 As a precautionary approach, it was concluded that the 2020 and 2021 results were potentially anomalous as a consequence of the disruption caused by the COVID-19 pandemic, so the modelling was undertaken using 2019 data (2022 data not available at this time) as a base. The full detailed dispersion assessment is included in the Council's AQMA Review – Detailed Modelling Study 2023 attached at Appendix 3.
- 7.14 The assessment identified that the annual mean nitrogen dioxide objective could potentially be exceeded at several relevant locations along Fairfield Road, and a small section of properties on Bridge street, on the approach to the Bridge Street/Fairfield Road/Bakewell Road Junction. These are shown in Figure 2.

Figure 2: Minimum extent of proposed AQMA A6, Fairfield Road, Buxton



7.15 The results for 2022 (published March 2023) have indicated continued exceedances along Fairfield Road (HP42 and HP 44) and a general increase in NO₂ levels from 2021, with the exception of HP33, although not to the levels observed in 2019. It is noted, however, that Fairfield Road was subject to particular disruption during 2022 with the construction of the Fairfield common roundabout, therefore, the 2022 results may also be considered slightly anomalous.

7.16 As a precautionary approach, therefore, it is recommended that an Air Quality Management Area (AQMA) is declared to include all those residential properties that are predicted by the dispersion modelling to be potentially exceeding 40 µg/m³.

7.17 Under Section 83(1) of the Environment Act 1995, where air quality objectives are not being met (or are predicted to not be met), the local authority must proceed and designate this area as an Air Quality Management Area (AQMA) as previously outlined.

7.18 It is, therefore, recommended that an Air Quality Management Area (AQMA), encompassing the properties on A6 Fairfield Road between the Alma Street/A6 Fairfield Road Junction and the Bridge Street/A6 Bakewell Road/A6 Fairfield Road Junction; and a small section of Bridge Street on the approach to the Bridge Street/A6 Bakewell Road/A6 Fairfield Road Junction, is declared by the Council. The form of Order to declare the AQMA is attached in

Appendix 2. A map showing the extent of the proposed AQMA is provided in Appendix 1.

- 7.19 Once the AQMA has been declared, the Council has a year to publish an Action Plan, setting out how it will use the measures and powers available to work towards improving the air quality within the AQMA. The Action Plan will take a practical approach and focus on what really matters – identifying the nature of the problem, and detailing measures that are or will be introduced to improve air quality local level.
- 7.20 The Council will not be preparing or implementing the action plan in isolation and will engage with relevant local (e.g. the public, Derbyshire County Council) and national stakeholders (e.g. Highways England, Public Health England and Central Government), to help deliver the required outcomes.
- 7.21 Where we have identified instances relating to traffic generated pollution, the powers are primarily available to other organisations, such as the relevant highways authority or agency, rather than the Borough Council. Recent changes in the statutory policy guidance place a greater emphasis on highway authorities to take a leading role in developing actions plans, when, as in this instance, the cause of air quality exceedances is predominantly from roads under their responsibility. As the source of pollution along the A6 is traffic generated pollution, the Council will look to Derbyshire County Council (Highways Authority), which is responsible for the management of this road, for help in preparing and delivering the action plan.