



# Revocation Report for Little Madeley AQMA

In fulfilment of Part IV of the Environment Act 1995  
Local Air Quality Management

Date: 06/06/2023

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# 1 Background Information

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas<sup>1,2</sup>. Newcastle-under-Lyme Borough Council has been taking action to reduce air pollution across the borough to reduce risk to human health and the environment as a whole.

Under the Environment Act 1995 all lower tier local authorities are obliged to review and assess air quality in line with the Government's air quality strategy. The Department for Environment, Food and Rural Affairs (DEFRA) has the national lead, and closely supervises the work of local authorities in relation to their air quality duties.

The National Air Quality Strategy sets out objectives for certain pollutants and local authorities are required to ensure that these objectives are met. The objective level for nitrogen dioxide is 40µg/m<sup>3</sup> (micrograms per cubic meter) measured as an annual mean and 200 µg/m<sup>3</sup> measured as an hourly mean (the measure should not be exceeded more than 18 times a year).

A high proportion of traffic travels into/through the four Air Quality Management Areas (AQMAs) within the Borough which have been declared for Nitrogen dioxide (NO<sub>2</sub>), these are;

- AQMA 1: Liverpool Road, Kidsgrove
- AQMA 2: Newcastle-under-Lyme Town Centre
- AQMA 3: Maybank-Wolstanton-Porthill
- AQMA 4: Little Madeley; which revocation is subject of this report.

An AQMA was declared on 15 January 2015<sup>3</sup> due to exceedances of the air quality objective for annual mean nitrogen dioxide (NO<sub>2</sub>) in the Little Madeley area. This AQMA was declared to comply

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<sup>1</sup> Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

<sup>2</sup> Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

<sup>3</sup> [https://uk-air.defra.gov.uk/aqma/details?aqma\\_ref=1587](https://uk-air.defra.gov.uk/aqma/details?aqma_ref=1587)

with the requirements placed upon the Council by virtue of Part IV of the Environment Act 1995.

The location of this AQMA can be viewed online on the Department for Environment, Food and Rural Affairs (Defra) website<sup>4</sup>.

Air Quality in the Little Madeley area is heavily influenced by traffic using the M6 motorway which runs within 20 metres of the nearest relevant receptor at Collingwood, 3 Newcastle Road. The associated Air Quality Action Plan for this AQMA takes account of traffic on the nearby M6 being the major contributor to NO<sub>2</sub> emissions in this location and sought to assess, bring about improvements and compliance in conjunction with Highways England, (Formerly the Highways Agency).

The NO<sub>2</sub> concentrations at this location dropped dramatically in 2016 and have been greater than 20% below the UK NO<sub>2</sub> annual mean objective for the past six full calendar years and continue to exhibit a downward trajectory.

Given that this location has been complaint for the past six to seven years and in accordance with Department for Environment, Food and Rural Affairs (Defra) guidance and advice to the Council, it is now recommended to revoke this AQMA.

A number of other local authorities have undergone the process of revoking an AQMA within their authority for reason including:

1. Exceedances of relevant AQO no longer predicted in AQMA (i.e. whole AQMA revoked)
2. Exceedances of relevant AQO within one of a number AQMAs will require the revocation of that single AQMA
3. Removal of relevant exposure from the designated AQMA may cause revocation
4. Exceedances of a particular AQO no longer predicted, causing a revocation for the particular pollutant or objective within the AQMA.

Exceedances of relevant AQO no longer predicted in the Little Madeley AQMA, therefore it can be UK AQMA removed maps.

Monitoring data for 2021 and 2022 across the borough as presented in our ASR shows that all annual mean concentrations were below the annual mean objective. However, the 2021 decrease was due in part to reduced traffic attributable to the impacts Covid-19 travel restrictions. Monitoring

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<sup>4</sup> [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)

will continue in all areas of the Borough to assess whether concentrations remain below the objective, once traffic numbers return to normal.

In addition to working to reduce and maintain NO<sub>2</sub> concentrations below the annual objective in all areas of the Borough, we will continue to assess planning applications to ensure that future developments and changes to the road networks across the Borough do not lead to an increase in the NO<sub>2</sub> concentration above the annual mean objective of 40µg/m<sup>3</sup>. We will also continue to regulate installations to ensure that emission limits are not exceeded and also regulation of smoke control and waste burning to reduce impacts on local air quality. Table 2. - 2021 of our 2021 ASR presents the significant trends.

## 2 How has nitrogen dioxide (NO<sub>2</sub>) been reduced at Little Madeley – Collingwood AQMA 4?

This AQMA and diffusion tube monitoring location is shown in Figure and presented in Table 1. Annual mean NO<sub>2</sub> concentrations for the past six calendar years 2017 to 2022. The highest measured NO<sub>2</sub> annual mean level was 19.8 µg/m<sup>3</sup>. Trends since 2017 show that the NO<sub>2</sub> annual mean objective<sup>5</sup> has been consistently below the 40 µg/m<sup>3</sup>. Accordingly we plan to revoke this AQMA prior to the next ASR and new Air Quality Action Plan (AQAP) currently under review to be published in 2024.

**Table 1 – Details of Diffusion Tube Monitoring Sites at Little Madeley**

Site Name	Location	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)	Tube Co-located with a Continuous Analyser	Height (m)
3	Collingwood, 3 Newcastle Rd	Rural	378116	345488	NO <sub>2</sub>	0.2	128.0	no	Tbc

<sup>5</sup> <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery#annex-a-tables-of-pollutants-and-limits>

### 3 What does this mean for monitoring of pollution levels?

Revocation of the AQMA does not mean that Council are going to stop monitoring air pollution in Little Madeley. We are also committed to continuing our work to reduce levels of pollution throughout the borough.

The council will continue working toward reducing the concentration of all pollutant to achieve the more stringent 2021 published World Health Organization (WHO) guideline<sup>6</sup> and this work is unaffected by this AQMA revocation proposal.

### 4 Why are you consulting if the area no longer meets the need for an AQMA?

We are writing to you both to notify you on our intention to revoke the AQMA and also to invite feedback should you think there are any other factors that need to be considered. If you wish to make any representation with regards to these proposals, please email us with your comments at Environmental Health at [Environmental\\_Health@newcastle-staffs.gov.uk](mailto:Environmental_Health@newcastle-staffs.gov.uk) by midday on the 30 August 2023.

### 5 What is the next step?

We begin a 4 weeks Statutory Consultation –30 July to 30 August 2023.

Feedback from the consultation will be considered and put to the Licensing and Public Protection Committee for approval early September 2023.

We will then seek DEFRA of final plan – mid September 2023 and a Revocation Order will be issued and made available on our website.

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<sup>6</sup> <https://apps.who.int/iris/handle/10665/345329>

Figure 1 Trends in Annual Mean NO<sub>2</sub> Concentrations 2017 to 2022– AQMA 4 Little Madeley, Collingwood

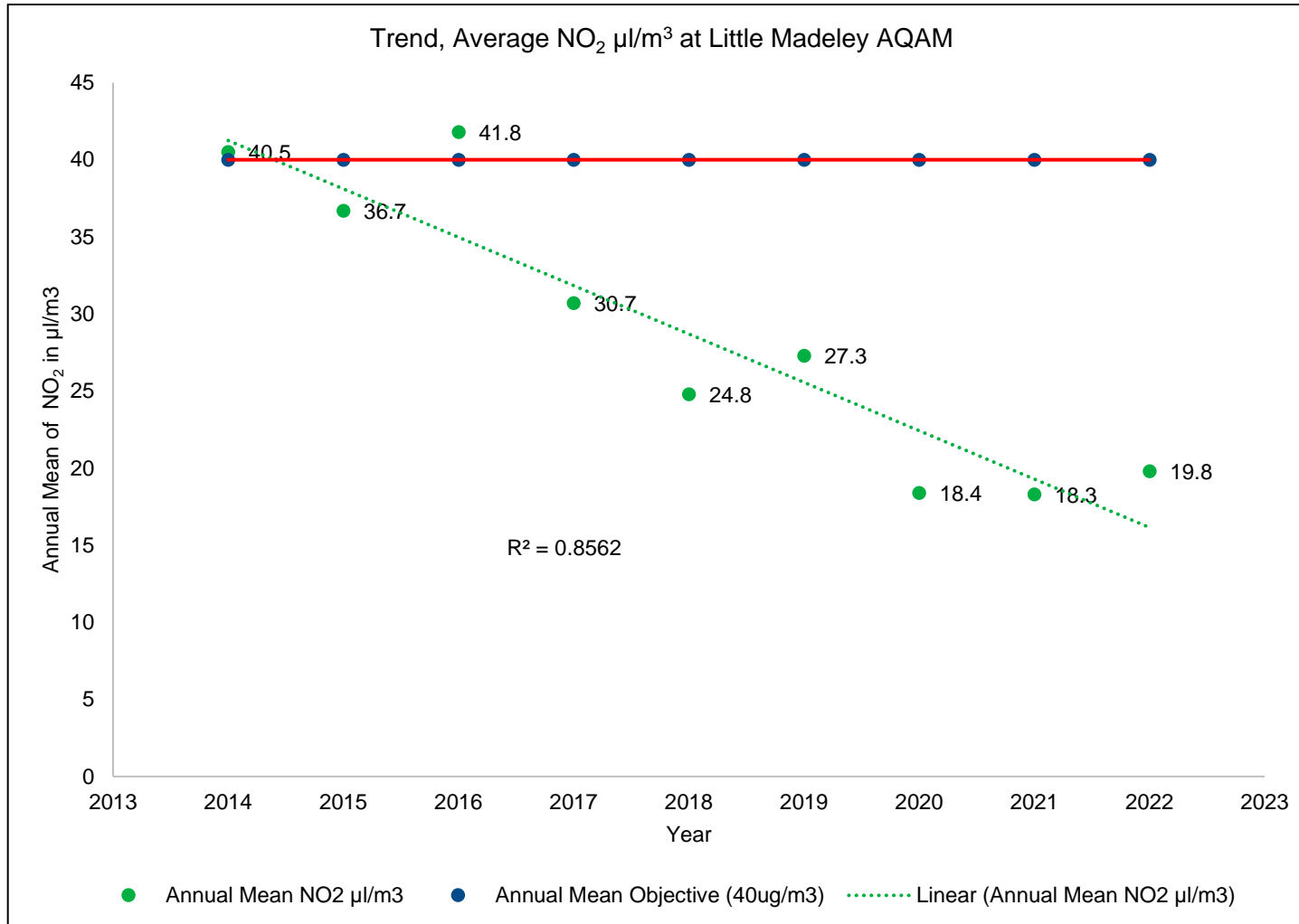
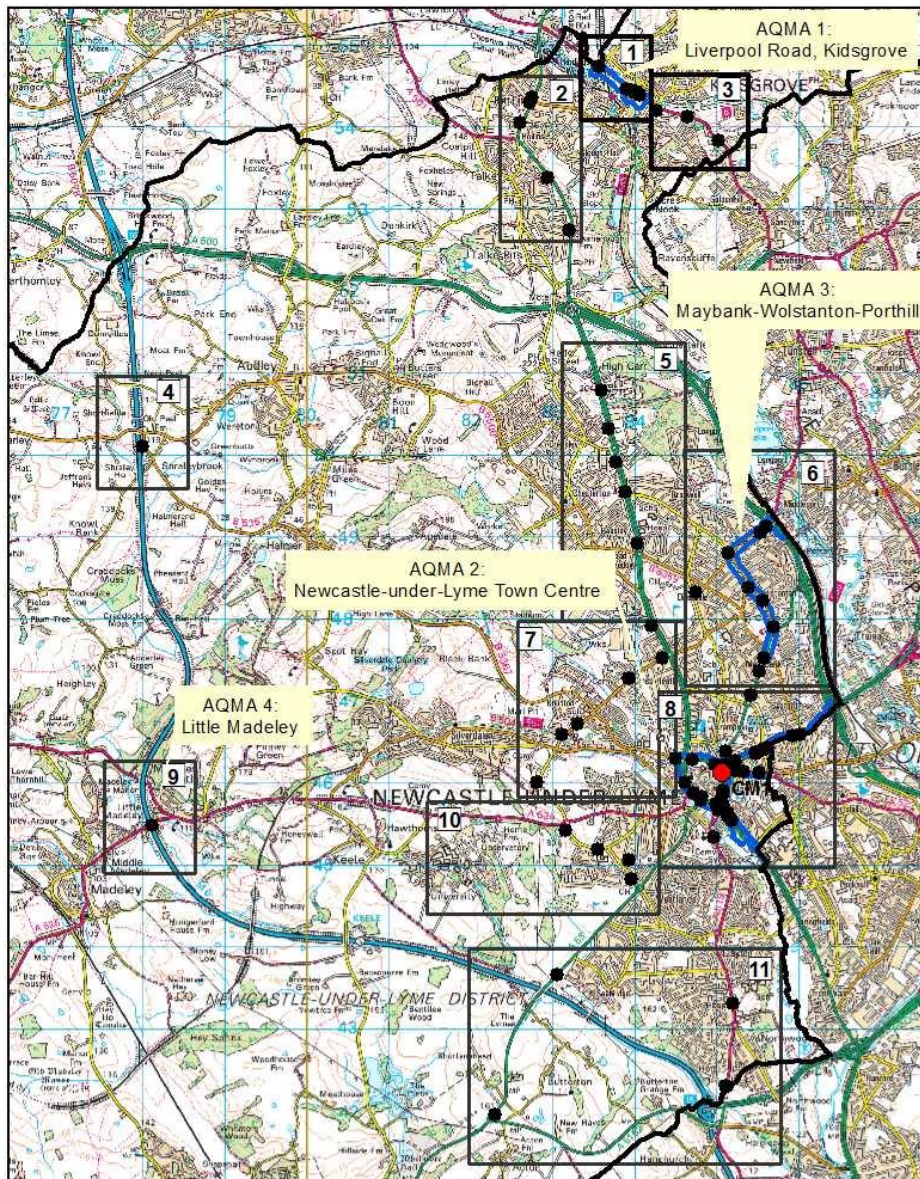


Figure 2 – Map of AQMAs and location of Monitoring Sites



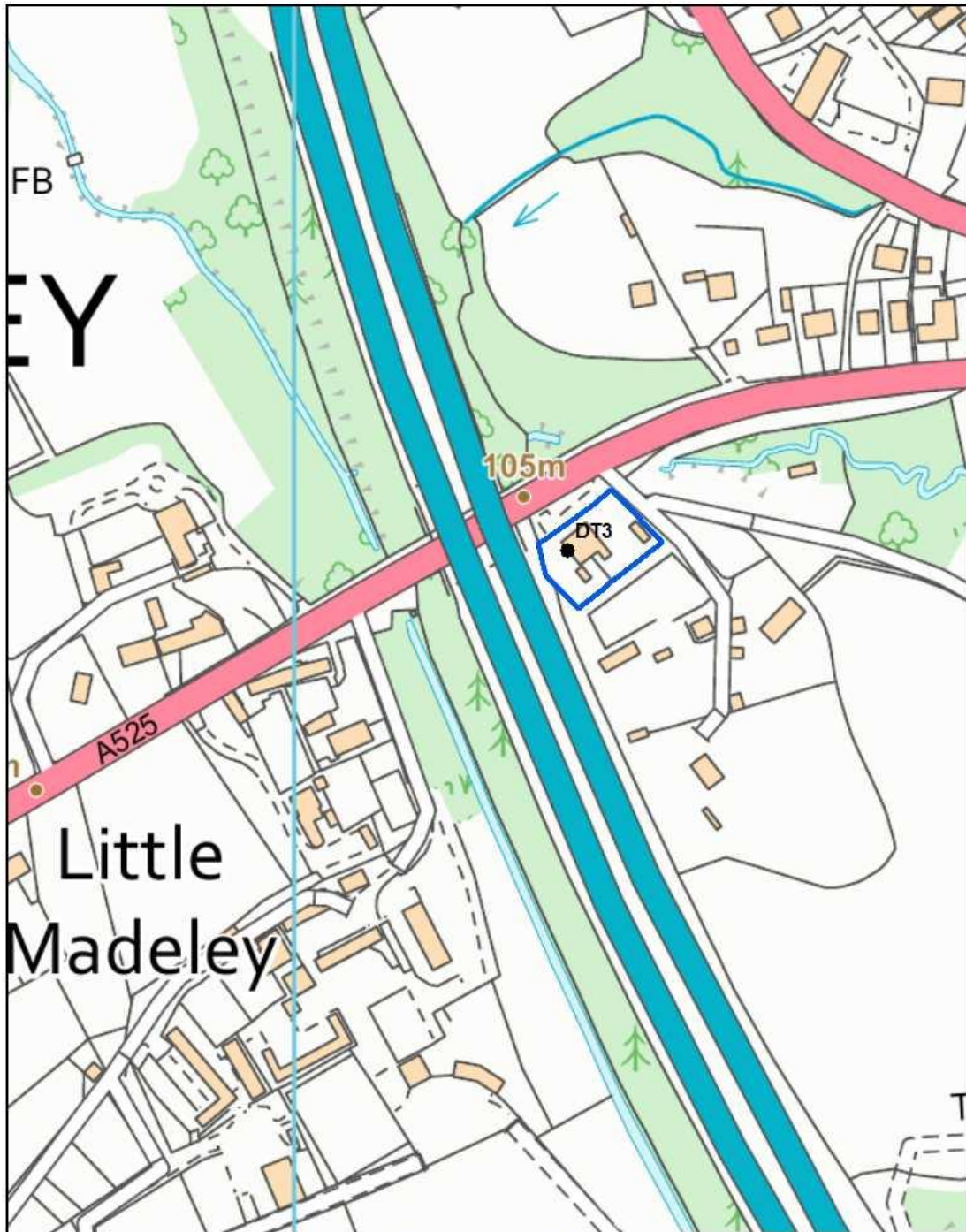
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● CM    ● DTs 2020  
 NuLBC Boundary  
 Areas  
 AQMA Boundary

Scale 1:55,000



Figure 3 - Map of monitoring Area 9 - AQMA 4: Little Madeley



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● DT\_2020  
 □ AQMA Boundary  
 Scale 1:2,000 ▲

## References and Papers

- Newcastle-under-Lyme Borough Council Air Quality Action Plan (2019-2024) at <https://modern.gov.newcastle-staffs.gov.uk/documents/s28367/4%20App%20AQAP%202019-2024.pdf>
- Newcastle-under-Lyme Borough Council Annual Status Reports at <https://www.newcastle-staffs.gov.uk/protection/air-quality-management>
- Air Quality Management Areas (AQMAs) at <https://uk-air.defra.gov.uk/aqma/>
- Air Quality Hub & LAQM at <https://laqm.defra.gov.uk/air-quality-hub/>
- Local Air Quality Management Technical Guidance LAQM.TG16. April 2021. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- DEFRA guidance documents at <https://laqm.defra.gov.uk/guidance/>