

**CLIMATE
CHANGE &
LEISURE
COMMITTEE
24/06/2026**

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24 June 2026

PART I

Revocation of an Air Quality Management Area (AQMA) at junction 18 of M25, Chorleywood (DoF)

1 Summary

- 1.1 AQMAs are required to be designated where the air quality fails to meet the prescribed standards for certain pollutants. This is done through an order, made under the Environment Act 1995. Since the 2 remaining AQMAs in Three Rivers were designated in 2001, the air quality has improved and the improvements have been sustained such that the air quality now complies with the required standards. For this reason Junction 18 of the M25 and its surrounds no longer need to be designated as AQMAs and the revocation of the orders is being recommended, in line with Government guidance.
- 1.2 This report provides further details and seeks clarification on the relevant revocation process.

2 Recommendation

- 2.1 That the report and its recommendations are discussed and noted with the agreed Officer recommendations progressed:
- i) To agree the revocation of the 2 AQMAs at junction 18 of the M25 in accordance with DEFRA guidance/legislative provisions under the Environment Act 1995 following stakeholder and public consultation.
 - ii) The final decision to revoke the 2 AQMAs at junction 18 of the M25 is delegated to the Director of Finance in consultation with the relevant Lead Member following consideration of any responses received to the consultation. If any material objections are raised the matter will be reported back to the relevant Committee.

3 Details

3.1 Background

The Council are legally obliged to monitor air quality in the whole of the District and to review and report the data annually to DEFRA. The requirements for monitoring and reporting air quality are set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and detailed in the relevant Policy and Technical Guidance documents.

<https://laqm.defra.gov.uk/wp-content/uploads/2023/11/LAQM-Policy-Guidance-2022.pdf>

- 3.2 The Local Air Quality Management process places an obligation on all local authorities to regularly review and assess air quality in their area, and to determine whether or not the air quality objectives are likely to be achieved.
- 3.3 Annual status reports (ASRs) are undertaken by specialist officers to consider all monitored data, existing AQMAs, and any changes in the District since the last ASR such as new developments, infrastructure proposals, and polluting industry that could have an impact on air quality. Once DEFRA have formally agreed the returns the information is publicly available.
- 3.4 The national Air Quality Objectives and Air Quality Standards Regulations limit and target values with which the UK must comply. The Air Quality Objectives in England require TRDC to consider nitrogen dioxide, particulates and sulphur dioxide.
- 3.5 Sulphur dioxide is normally associated with heavy industry such as electricity generation, there are no known significant local sources of SO₂ and therefore this is not monitored by TRDC.
- 3.6 The main source of local pollution in TRDC is from vehicles, both nitrogen dioxide and particulates are released from vehicle sources. Estimated Background Air Pollution Maps for particulates (base year 2018), downloaded from <https://uk-air.defra.gov.uk/data/laqm-background-home> show that the estimated PM₁₀ and PM_{2.5} concentrations within TRDC are significantly below the PM₁₀ objective level (40ug/m³) and PM_{2.5} target level (25ug/m³).
- 3.7 The Council currently report on Nitrogen Dioxide (NO₂) and Particulates (PM₁₀ and PM_{2.5}) but with a resource focus on nitrogen dioxide where exceedances are more likely.
- 3.8 Where an exceedance of the national air quality objectives are considered likely the local authority must declare an Air Quality Management Area (AQMA), carry out and prepare an Air Quality Action Plan (AQAP) (approval by DEFRA) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out.
- 3.9 TRDC currently has 2 AQMAs which are co located in Chorleywood at Junction 18 of the M25, see plan at **Appendix A**. The AQMAs were both declared in April 2001. The NO₂ AQMA is an area along the M25 south of Junction 18 to just north of where the motorway crosses the River Chess. The PM₁₀ AQMA is a slightly narrower area from just north of Junction 18, along the M25 to just north of where the motorway crosses the River Chess.
- 3.10 The AQMAs were declared due to predicted exceedances of the National Air Quality Objectives for NO₂ and PM₁₀.
- 3.11 Current Monitoring:
- TRDC currently monitor Nitrogen Dioxide (NO₂) by diffusion tubes. The tube locations have been identified and sited in areas where it is most likely that the air quality objectives could be exceeded, Officers also need to consider relevant receptors i.e. dwellings, schools, care homes. Officers would normally decide the locations based on the annual monitoring and data such as traffic counts and queuing data. There is also monitoring at a limited number of locations where there is limited pollution to provide background measurements.

- 3.12 In 2021/22 Watford BC Environmental Health Officers reviewed the diffusion tube locations in Three Rivers to ensure they were located in areas of potentially highest pollution. The number of diffusion tubes was also increased (currently 26) in the District. Details of the locations are detailed in **Appendix B** and include the siting of diffusion tubes in the existing AQMA.
- 3.13 Due to the designation of an Air Quality Management Area in TRDC (at J18 M25/ Chorleywood Road) TRDC are also monitoring PM₁₀ particulates via Air Quality sensors. These particulates are a source of pollution from vehicles. Previous monitoring was limited due to a focus on NO₂ but mesh sensors were initially utilised in 2017, provided with HCC funding, but monitoring was sporadic and unreliable. However, new equipment was installed by HCC in 2024. This collects and reports data every 15 minutes.
- 3.14 In 2018, a detailed assessment was undertaken to determine whether the AQMAs in Chorleywood could be revoked. The modelling study indicated that there are no exceedances of the NO₂ and PM₁₀ annual mean objective at locations with relevant exposure in the area surrounding Junction 18 of the M25. The modelled PM₁₀ concentrations were lower than the 40 µg/m³ annual mean limit value, the maximum modelled PM₁₀ concentration at the discrete receptors was 18.4 µg/m³. The results indicated that annual mean NO₂ concentrations were close to the air quality objective of 40 µg/m³ at locations where relevant exposure may be present. At the time it was recommended that TRDC continue to measure NO₂ and PM₁₀ and not revoke the AQMA.
- 3.15 Revoking an AQMA:
- DEFRA guidance confirms the revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring.
- 3.16 Where NO₂ monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should only be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36µg/m³ (i.e. not within 10% of the annual mean NO₂ objective due to uncertainties and yearly variations).
- 3.17 Following declaration of AQMAs, the Council is required to produce an Air Quality Action Plan (AQAP) setting out measures to reduce polluting emissions and subsequently improve air quality within our AQMAs. The AQAP (2015-2020) (amended 2020/21) outlined the action to be taken to improve air quality in Three Rivers with specific focus on the AQMAs.
- 3.18 As identified in the AQAP, the 2019 TRDC Air Quality Annual Status Report (ASR) identified that measured concentrations of NO₂ continue to be below the air quality objectives within the current AQMAs. There has been a continued downward trend at the established monitoring sites and measured concentrations have been consistently below the annual objective for NO₂ for a number of years.
- 3.19 Table 1 forms part of the 2024/25 Annual Status Report details current data;

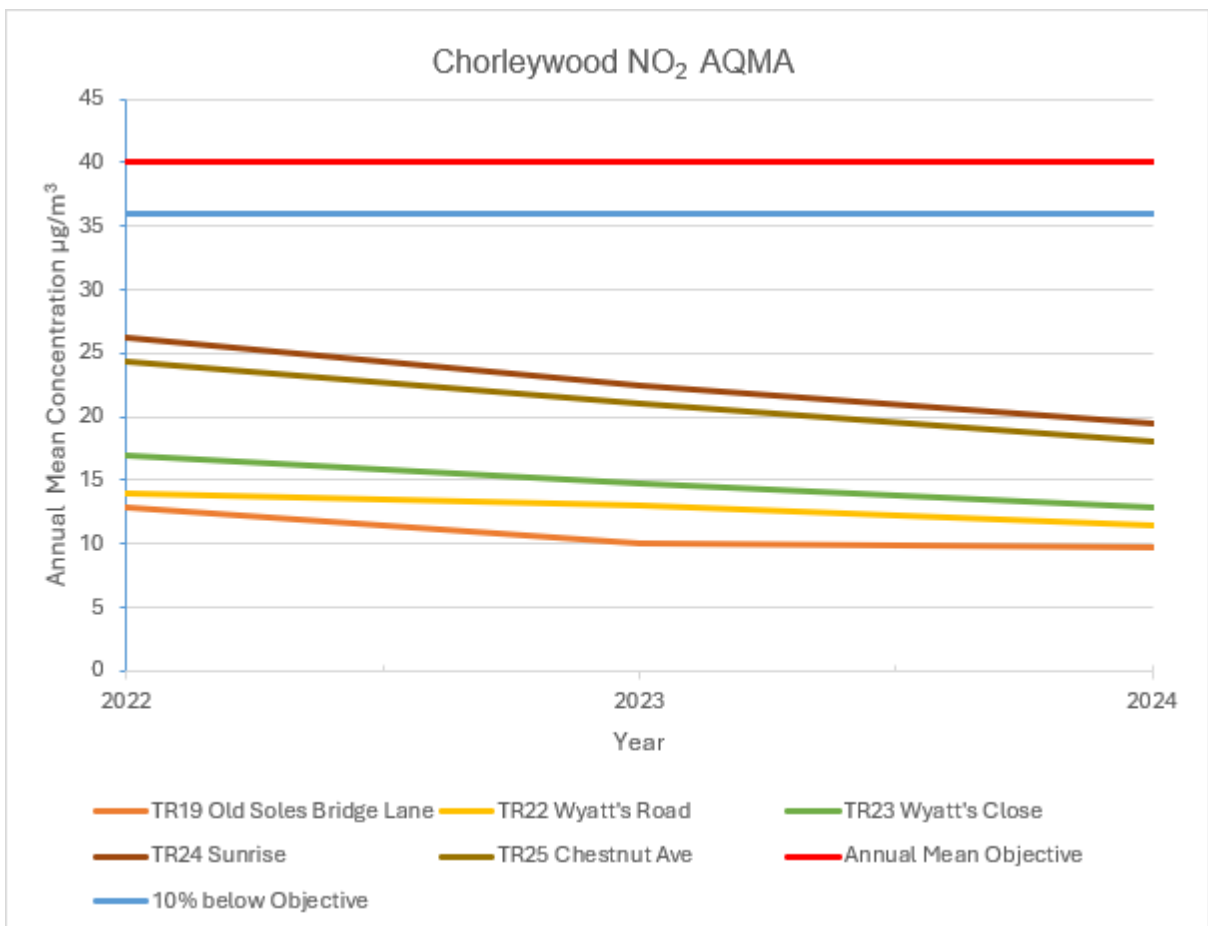
Table 1. - Declared Air Quality Management Areas

AQMA Name	Pollutants and Air Quality Objectives	Level of exceedance: Declaration *	Level of exceedance: Current Year **	Number of Years Compliant with Air Quality Objective
Chorleywood NO ₂ AQMA	NO ₂ Annual Mean	>40	22.5	Last 3 consecutive years
Chorleywood PM ₁₀ AQMA	PM ₁₀ 24 Hour Mean	>50, exceeded more than 35 times in a year	Two Airscan Units have been deployed with the AQMA. WBC are hoping to be able to report data from the sensor in next year's ASR.	PM ₁₀ concentrations have not been monitored at this location since 2017.

*this is the objective limits declared in our AQAP 2015-2020

** concentrations from current monitoring results

3.20 The annual mean concentration of NO₂ monitored in Chorleywood NO₂ AQMA have been comfortably below the 10% margin for error at all locations for a minimum of 3 consecutive years. As such, it is recommended, and agreed by DEFRA, that the AQMA for NO₂ should be revoked.

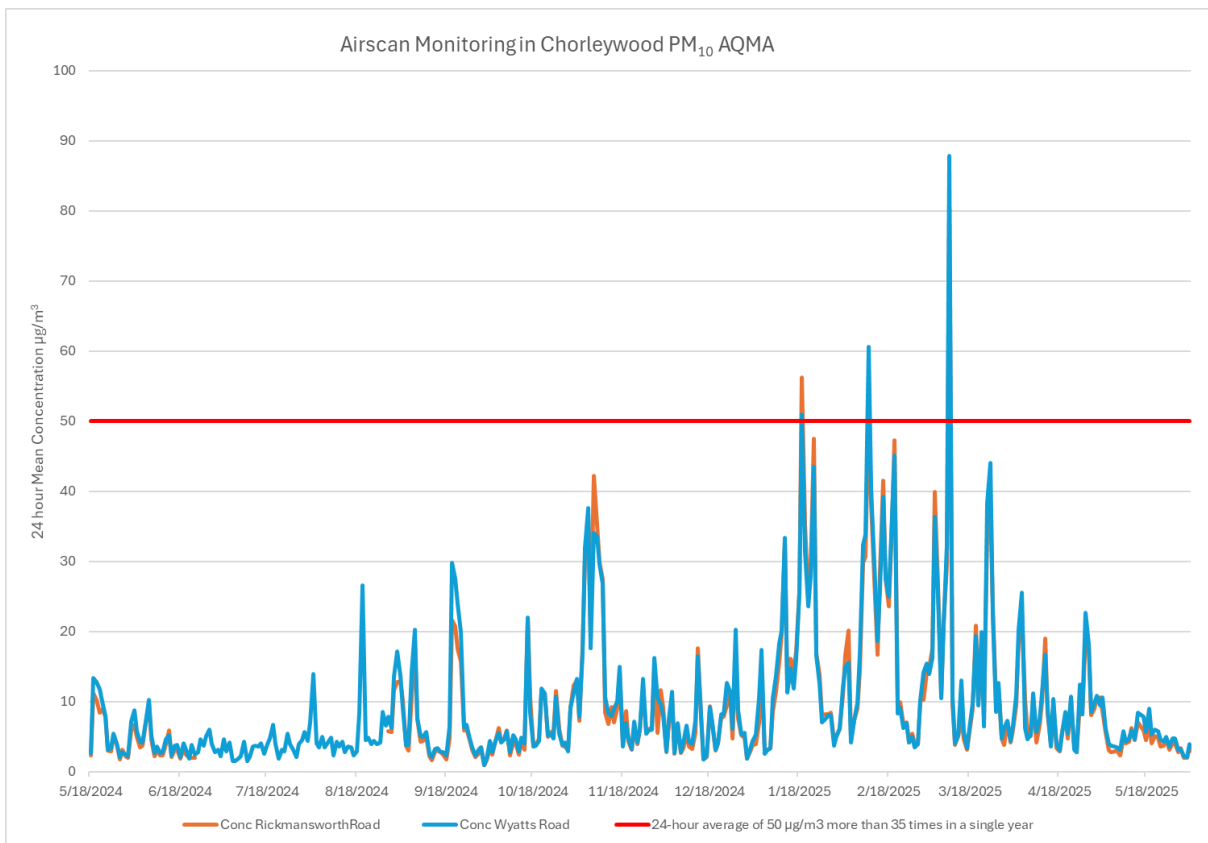


3.21 Since the declaration of the AQMA (PM₁₀) in 2001 there has been a significant reduction in PM₁₀ emissions particularly from road traffic. Evidence of this can be seen on the DEFRA website [Particulate matter \(PM10/PM2.5\) - GOV.UK](#). Many Local Authorities had declared AQMAs for PM₁₀ at stage 3 of the 1st round of review and assessment. In a subsequent Stage 4 assessment all AQMAs were remodelled using new emission factors published by DEFRA and a large percentage of the AQMAs were revoked at this time (early 2000s). Three Rivers District Council undertook all 4 stages of the review and assessment concluding in stage 4 that the Chorleywood PM₁₀ AQMA should be revoked. For some reason this was not done.

3.22 However as there hasn't been a monitoring station in the AQMA and a significant amount of time has passed since the modelling was undertaken it has been difficult to provide current evidence to DEFRA to justify its revocation.

3.23 Two Airscan Units (low-cost sensors provided by Iknai, funded by Hertfordshire County Council) were deployed in May 2024 in the PM₁₀ AQMA. One on Wyatts Road and the other on Rickmansworth Road. These instruments are usually not considered suitable for measuring PM₁₀ annual mean or the number of exceedances as they are not accurate enough to meet the expanded uncertainty requirements of equivalent instruments. However, based on the evidence outlined above DEFRA have given the council permission to use sensors in this case as it is likely that even when considering the margin of error, the monitoring results would be able to indicate compliance or not.

3.24 Recent monitoring results from both sensors can be seen in the chart below:



3.25 Both sensors are monitoring similar concentrations at the same time this is why at some points it is difficult to differentiate between the 2 lines on the

chart. During the summer of 2024 only data from the Wyatts Road sensor was available. The chart indicates that the AQMA is comfortably compliant with the 24-hour mean objective having exceeded $50\mu\text{g}/\text{m}^3$ 3 times during the year.

- 3.26 Based on historic PM_{10} data and actions to reduce PM_{10} concentrations within this AQMA, in consultation with DEFRA during the submission of the ASR 2025 and draft revised AQAP, DEFRA has agreed with the approach of revoking the AQMA. They have stated,

“Both low-cost sensors monitored similar concentrations and during the summer of 2024 only data from the Wyatts Road sensor was available. The results indicate that the PM_{10} AQMA is comfortably compliant with the 24-hour PM_{10} mean objective having exceeded $50\mu\text{g}/\text{m}^3$ 3 times during the year.

Due to this, the Council should consider revoking both the Chorleywood NO_2 AQMA and the Chorleywood PM_{10} AQMA in the next year. This will mean that TRDC will no longer have any AQMAs and an Air Quality Action Plan is not required, but TRDC will need to develop an Air Quality Strategy.”

- 3.27 It is therefore recommended the Council revoke both the Chorleywood NO_2 AQMA and Chorleywood PM_{10} AQMA. This will mean that Three Rivers District Council will no longer have any AQMAs and an Air Quality Action Plan is not required. Delivering the Climate Emergency & Sustainability Strategy 2023-2027 will enable Three Rivers Council to continue improving Air Quality across the district and not just focus on the areas near the M25 motorway.
- 3.28 If a local authority does not revoke an Air Quality Management Area (AQMA) when air quality objectives are being met, it is considered to be in **breach of its statutory duties** under the Environment Act 1995.
- 3.29 Process for Revoking an AQMA:
- DEFRA have provided guidance for local authorities to consult prior to revoking or amending AQMAs (Technical Guidance LAQM.TG22). Local authorities are therefore encouraged to consult on the decision to revoke or amend. However, there is no statutory requirement for a public consultation.
- 3.30 Relevant internal Council and HCC services (HCC Highways and Public Health, TPP, Climate Team, Planning Policy and Environmental Health) have been consulted on the revocation proposals. **No/Some comments were raised.**
- 3.31 Following the formal agreement to revoke the AQMAs, in accordance with DEFRA guidance, Ward members, stakeholders (HCC Highways, HCC Public Health, Bucks CC) and residents will be consulted to inform them of the proposed revocation. It is recommended that the final decision to revoke the AQMAs will be delegated to the Director of Finance, in consultation with the Lead Member, once this consultation exercise is completed.
- 3.32 Once the order is in place residents are notified and a copy of the revocation order is sent to DEFRA.

Report Written by: Kimberley Rowley, Head of Regulatory Services

Appendix A: Map of AQMA (NO_2 and PM_{10})

Appendix B: Map of diffusion tube sites

