

Environment Committee	
Meeting Date	Wednesday, 13 March 2024
Report Title	Review of Air Quality Management Areas in East Street (AQMA 3) and Teynham (AQMA 5)
EMT Lead	Lisa Fillery, Director of Resource
Head of Service	Tracey Beattie, Mid Kent Environmental Health Manager
Lead Officer	Clare Lydon, Acting Team Leader
Classification	Open
Recommendations	<ol style="list-style-type: none"> 1. That the Environment Committee approves the revocation of AQMA 3 and AQMA 5. 2. That the Environment Committee authorise the Head of Legal Partnership to agree the wording and issue Revocation Notices for AQMA 3 and AQMA 5.

1 Purpose of Report and Executive Summary

- 1.1. This report reviews the air quality data and advice provided by Defra in the last two Annual Status Reports (2022 and 2023) relating to Air Quality Management Area 3 (East Street) and 5 (Teynham). Consideration is given to statutory guidance provided in Defra's Local Air Quality Management, Technical Guidance 2022.
- 1.2. Annual mean concentrations of nitrogen dioxide (NO₂) at these two Air Quality Management Areas (AQMA) have been consistently below the government Air Quality Objective (AQO) for five and four years respectively. Defra have expressly indicated to Swale that both AQMAs should begin the process of revocation in feedback of the 2022 and 2023 Annual Status Reports (ASRs).
- 1.3. To ensure that any decisions are made on robust evidence, Swale Borough Council continued to monitor air quality for an additional year (2023) before commissioning Ricardo, a company with worldwide reputation and expertise in air quality, to carry out a Detailed Assessment of NO₂ concentrations in these AQMAs. They were asked to consider the future committed developments that could impact air quality in these areas. As the declaration of the AQMAs relates to NO₂ this was the pollutant considered in the report.
- 1.4. The Detailed Assessment quantified the public exposure to concentrations of NO₂ across East Street, Sittingbourne and Teynham. The study assessed the years 2022 and 2028 and considered the impact of future committed developments, that could adversely impact concentrations of

NO₂ in the AQMAs. A sensitivity test was also completed, to address possible fleet renewal delays in Swale relative to national projections. The assessment is robust in determining future compliance.

- 1.5. The Detailed Assessment demonstrates that Air Quality Objectives are being met and will continue to do so. The modelling results in the Detailed Assessment indicate the AQMAs in Teynham and East Street Sittingbourne can be revoked without risk of future exceedances for NO₂. The final conclusions of the assessment, provides confidence that the improvements will be sustained.
- 1.6. Continued monitoring for NO₂ and a planned use of new technology to monitor particulates at these locations will ensure that air quality remains under scrutiny, with the option of establishing AQMAs for any pollutants exceeding the national air quality standards.

2. Background

- 2.1. Swale Borough Council has a statutory duty under Part IV, Section 83 (1) of the Environment Act 1995, as amended by the Environment Act 2021, to review and assess air quality and take the necessary actions to improve areas of poor air quality. If the UK government Air Quality Objective for key pollutants are exceeded where people are likely to be regularly present, an AQMA must be declared.
- 2.2. Monitoring identified six locations that exceeded the annual air quality objective for NO₂ with six AQMAs having been declared. These are AQMA 1 (Newington), 2/6 (Ospringe), 3 (East Street), 4 (St Paul's Street), 5 (Teynham) and 7 located along Keycol Hill.
- 2.3. The Council has an extensive air quality monitoring network providing data on NO₂, particulate matter (PM₁₀ and PM_{2.5}) pollutant concentrations. The data is recorded, collated, and reported annually in the Council's Air Quality Annual Status Report submitted to the Department for Environment Food and Rural Affairs (Defra) for approval prior to publication.
- 2.4. The Annual Status Report (ASR) provides an opportunity to analyse bias adjusted data collected over the year and compare with the previous five years of data. The ASR 2023 (see background papers) reported on data from 2022 and includes data from 2018, 2019, 2020 and 2021. The overall five-year trend is one of improving air quality across all AQMAs, with an overall decrease in NO₂ concentrations since 2018 for AQMA 3 and 5.
- 2.5. The ASR 2023 indicated that apart from an exceedance at Keycol Hill, there has been compliance of the Annual Mean NO₂ concentrations at all automatic monitoring stations and diffusion tube sites for the past three years. There are however no grounds for complacency, as some AQMAs are still only within 10% of the annual mean NO₂ objective: Newington (AQMA 1) and Ospringe (AQMA 2/3). The latest AQMA Keycol Hill (AQMA

7) shows exceedances in 2019 and 2022 with no exceedances in 2020 or 2021. St Paul's Street (AQMA 4) has been compliant following three consecutive years of annual mean NO₂ concentrations and below 10% NO₂ objective.

- 2.6. East Street (AQMA 3) shown in figure 1 has been compliant for four years with one of those years within 10% of the objective and Teynham (AQMA 5) in figure 2 has been compliant the last five years, with one of the years being within 10% of the NO₂ objective.

Below shows East Street (AQMA 3) and Teynham (AQMA 5)

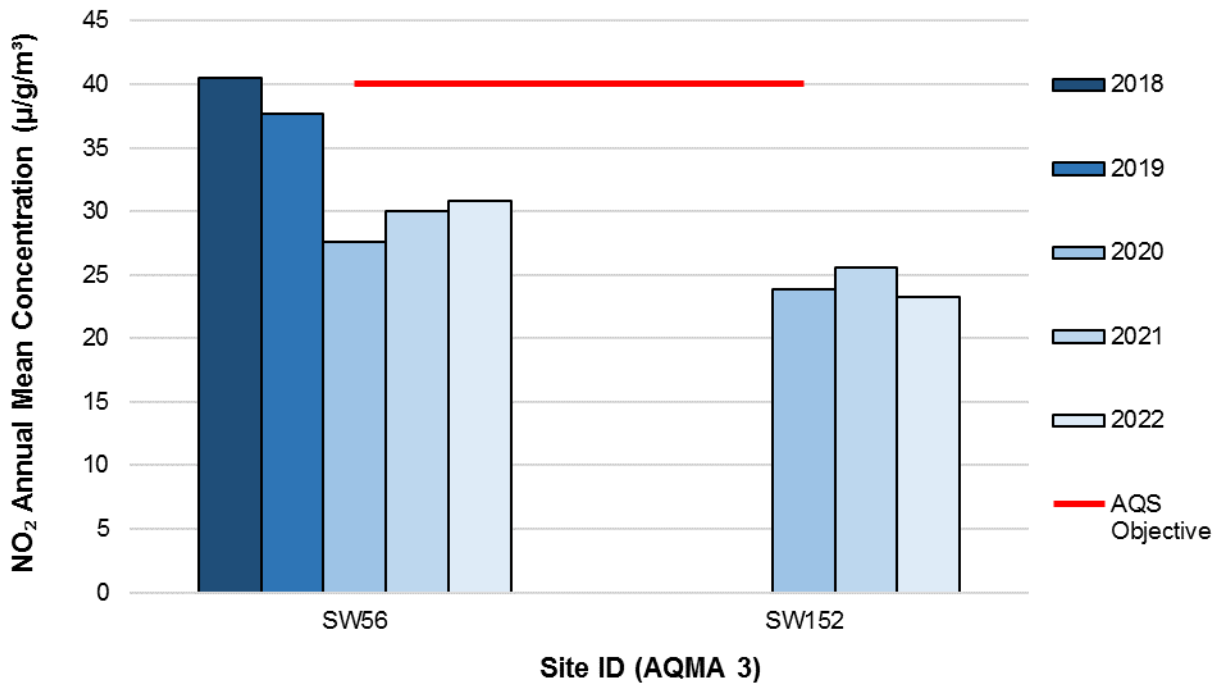


Figure 1 presents NO₂ annual mean concentrations for sites SW56 and SW152 in AQMA 3 (East Street) between years 2018 to 2022.

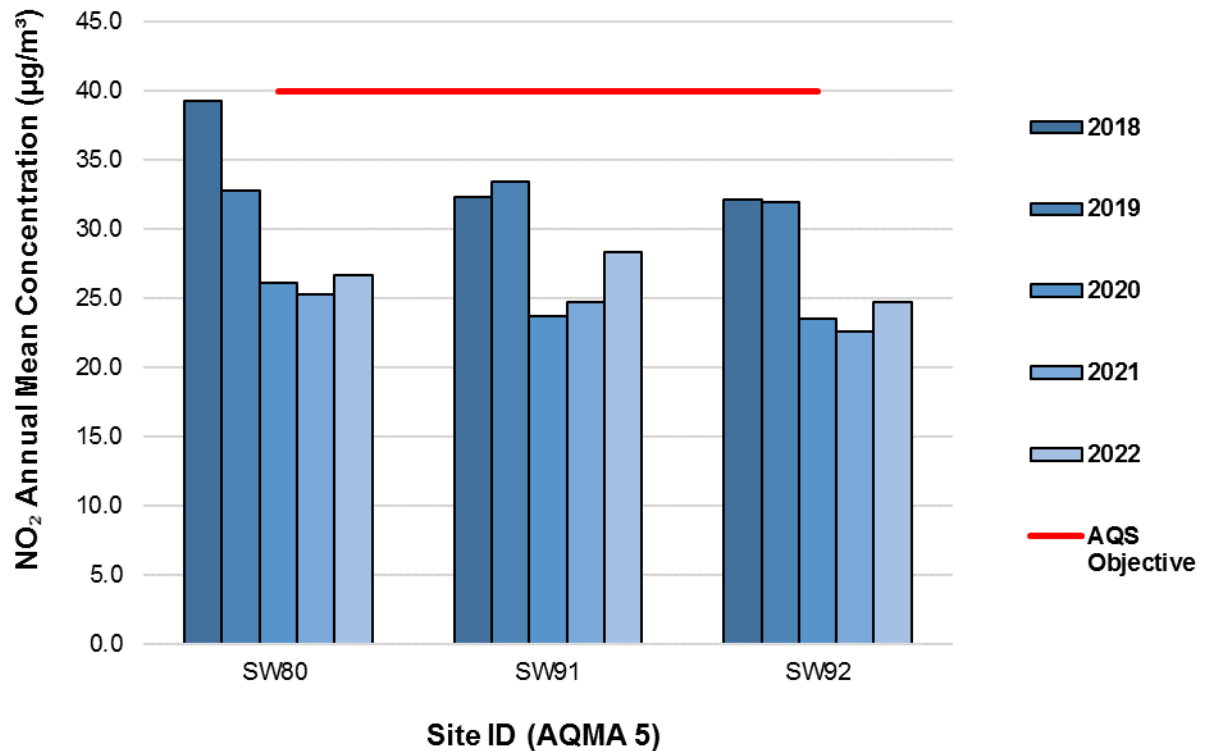


Figure 2 presents NO₂ annual mean concentrations for sites SW80, SW91 and SW92 in AQMA 5 (Teynham) between years 2018 to 2022.

- 2.7. Several factors have combined to bring about a reduction in NO₂ levels, both nationally and locally, in recent years. Perhaps the most important of these was the introduction of the Euro VI engine class in 2014. The Euro VI class represented a very significant improvement in NO_x emissions compared to the previous classes, and every year the proportion of Euro VI vehicles in the vehicle fleet increases. Other factors responsible for the reduction include a decrease in the proportion of new diesel vehicle sales, an increase in the proportion of electric vehicles and hybrid vehicles and most recently, changes in working practices originally introduced because of the COVID pandemic.
- 2.8. In our ASR 2023 appraisal from Defra, we were advised AQMAs 3 (East Street) and 5 (Teynham) should be revoked as soon as possible, as they have been compliant for four and five consecutive years, respectively. Defra advised the revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where there have been no exceedances for the past five years, local authorities must proceed with plans to revoke the AQMA. The Local Air Quality Management Technical Guidance 2022 is clear in this respect: *"There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period."* (Point 3.57, page 50)". Defra further advised

that “we recognise the public perception of an AQMA being revoked might be that air pollution is no longer a problem in the area, however, keeping AQMAs in place longer than required risks diluting their meaning and impacting public trust in local air quality management.”

To ensure that any decisions made are based on robust evidence, Swale continued to monitor air quality for an additional year (2023) and commissioned Ricardo to carry out a Detailed Assessment of NO₂ concentrations in the AQMAs, and to consider the future committed developments that could impact air quality in these areas (Appendix 1).

- 2.9. The 2024 ASR has not yet been completed, however the NO₂ tube data for the year 2023 is now available and is shown below in figures 3 and 4. Both graphs confirm that all monitoring sites within AQMA 5 (Teynham) and AQMA 3 (East Street) are below the Air Quality Standard Objective level of 40 µg/m³. The Teynham monitoring site concentrations are 19.2 µg/m³, 23.8 µg/m³, and 20.7 µg/m³ and the East Street site concentrations are 16.7 and 21.7 µg/m³

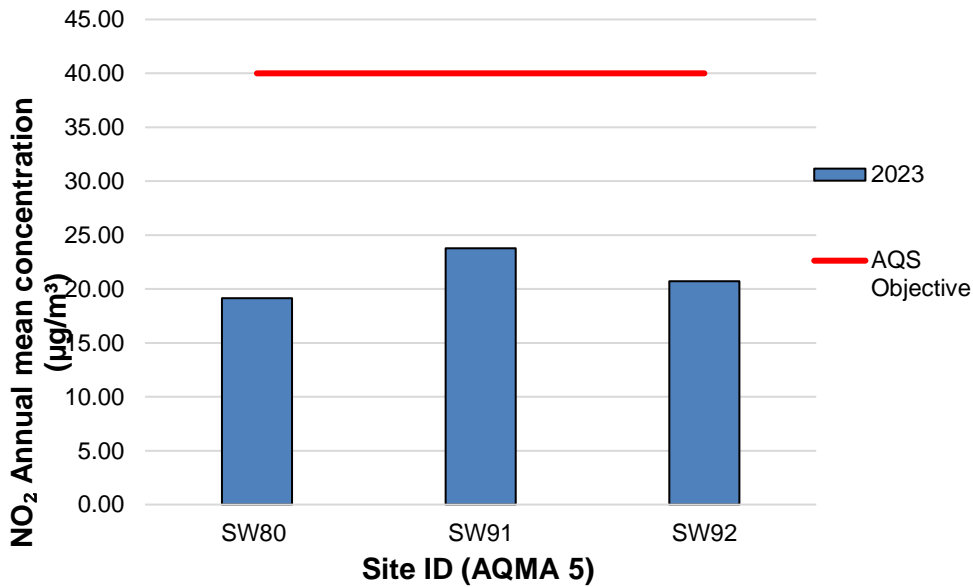


Figure 3 presents NO₂ annual mean concentrations for sites SW80, SW91 and SW92 in AQMA 5 (Teynham) for 2023.

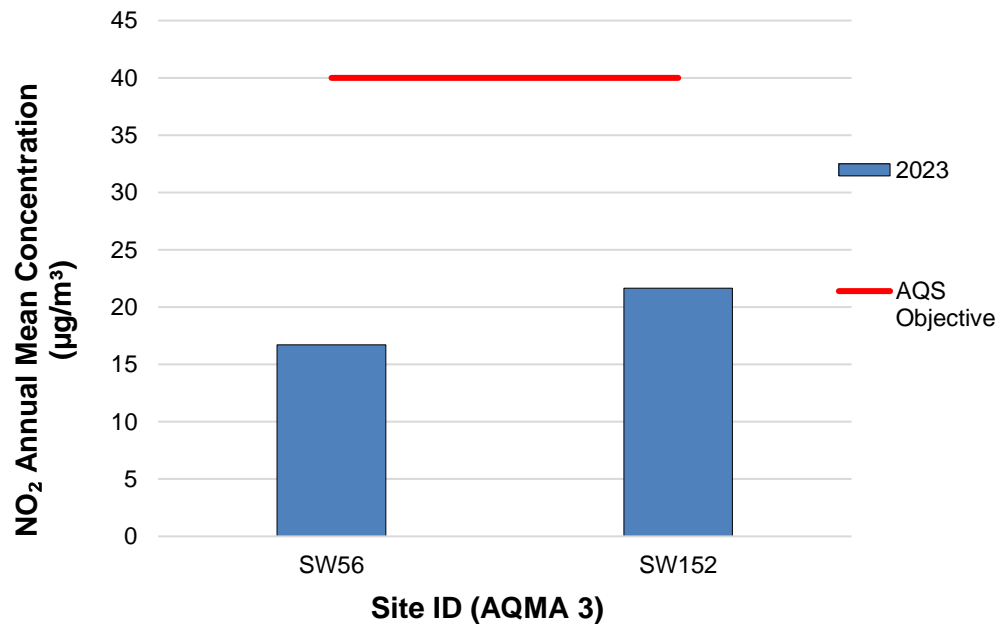


Figure 4 presents NO₂ annual mean concentrations for sites SW56 and SW152 in AQMA 3 (East Street) for 2023.

2.10. The Detailed Assessment (Appendix 1) provides a review of the monitored data presented in the ASR 2023 and a modelled prediction of future NO₂ concentrations. The assessment sets out in detail the approach used to assess if AQMAs 3 (East Street) and 5 (Teynham) should be revoked. The assessment quantified the public exposure to concentrations of NO₂ across East Street, Sittingbourne and Teynham. The modelling reviews the baseline year of 2022, using traffic data provided by the Council, from consultants SWECO (traffic management specialists) used by Swale Planning, plus national forecasts for the vehicle fleet composition. The assessment includes a future scenario to predict traffic impacts during the year of 2028, and considers whether future committed developments may adversely impact pollutant concentrations in the AQMAs. This scenario was modelled assuming that all traffic generated by each development would run through the two AQMAs. A sensitivity test was also factored should there be a delay to fleet renewal in Swale relative to national projections for 2028.

2.11. The Detailed Assessment provided the following final conclusions:

- No relevant individuals within AQMA 3 and 5 are predicted to be exposed to an annual mean NO₂ concentration above or within 10% of the Air Quality Objective for annual mean NO₂.
- The Sittingbourne, East Street and Teynham AQMAs will continue to be below 10% of the Air Quality Objective for annual mean NO₂ at all locations of relevant exposure in the modelled 2028 scenario.
- The model results therefore indicate the AQMAs can be revoked without risk of future exceedances

2.12. The next steps include updating the Air Quality Action Plan to reflect the status of the AQMAs and outline the continued air quality monitoring relevant to these sensitive locations. There is a continuing commitment to ensure Swale can respond quickly should there be any deterioration in air quality across a range of pollutants. Monitoring results will continue to be published and reported to Defra in the usual way.

3. Proposals

3.1. To revoke both AQMAs 3 (East Street) and 5 (Teynham) in line with recommendations made by Defra and Statutory Guidance (Local Air Quality Management, Technical Guidance 2022).

4. Alternative Options Considered and Rejected

4.1. Do not revoke and retain AQMAs 3 (East Street) and 5 (Teynham). This would be contrary to Statutory Guidance outlined in Defra’s Local Air Quality Management Technical Guidance 2022 and weaken the impact of the AQMA status for the remaining AQMAs in the district. Keeping AQMAs in place longer than required risks diluting their meaning and impacting public trust in Local Air Quality Management

5. Consultation Undertaken or Proposed

5.1. No public consultation is required.

6. Implications

Issue	Implications
Corporate Plan	Priorities: Investing in our environment and responding positively to global challenges: Aligns with Swale’s climate change goal and result of reduced pollution emissions
Financial, Resource and Property	There are no significant costs associated with the revocation of the AQMA
Legal, Statutory and Procurement	The revocation of the AQMAs is required for Swale Borough Council to comply with section 83(1) of Part IV of the Environment Act 1995, as amended by the Environment Act 2021. This legislation requires Local Authorities to declare AQMAs to tackle exceedances of any air quality objectives, but having tackled them, the AQMAs must be revoked.

Crime and Disorder	None identified
Environment and Climate/Ecological Emergency	This proposal aligns with ambitions included in the Councils Climate and Ecological Emergency declaration as it is a result of reduced pollution emissions
Health and Wellbeing	The revocation of the AQMAs aligns with a positive impact on Public Health and Wellbeing of the population of Swale BC, as it shows air quality is improving and that these areas are now compliant with national air quality objectives. The revoked AQMAs will be continually reviewed and reported on through the Councils Annual Status Report to ensure improvements continue.
Safeguarding of Children, Young People and Vulnerable Adults	None identified
Risk Management and Health and Safety	Demonstrating the AQMAs are compliant Swale Borough Council should revoke the two AQMAs in line with legislation and statutory guidance. If they do not then, they will not only weaken the status of the AQMA orders but will risk public confidence and risk of criticism from Defra. No Health and Safety implications identified.
Equality and Diversity	None identified
Privacy and Data Protection	None identified

7. Appendices

7.1. The following documents are to be published with this report and form part of the report:

- Appendix 1: Detailed Assessment completed by Ricardo 2023

8. Background Papers

Swale's Annual Status Report 2023 can be found at

https://swale.gov.uk/__data/assets/pdf_file/0005/457835/ASR-2023_-_Final_24_10_2023_updated-PDF-AA.pdf