2025 Air Quality Annual Status Report (ASR) Draft

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: June, 2025

Information	East Suffolk Council Details
Local Authority Officer	Denise Lavender
Department	Environmental Protection
Address	East Suffolk House, Riduna Park, Station Road, Melton, Woodbridge, IP12 1RT
Telephone	0333 016 20000
E-mail	Environmental.protection@eastsuffolk.gov.uk
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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Services Department of East Suffolk Council with the support and agreement of the following officers and departments:

Rebecca Brooks, Matt Axton, Hannah King, Mark Kemp – Environmental Protection

Daniel Wareing – Environmental Sustainability Officer

Aimee Mclachlan – Sustainable Travel Officer

Paul Mackie – Environment and Climate Change Lead Officer

Teresa Howarth - Strategic Lead - Private Sector Housing

Roy Catling - Operational Lead - Capital Programme Housing Regeneration

Bethany Rance – Energy Projects Manager – Energy Planning

Jason Beck - Principal Planner - Policy and Delivery

Simon Elvin – Human Resources

Robert Stammers – Waste Strategy and Business Improvement

Stephanie Duff – Housing Repairs and Maintenance

Angela Davis and Bradley Borley – Suffolk Coastal Port Health Authority

Teresa Bailey – Senior Licensing Officer

Kate Ellis – Regeneration and Growth

This ASR has been approved by:

Chris Bally - Chief Executive, East Suffolk Council

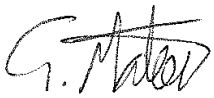
Fiona Quinn - Head of Environmental Services and Port Health, East Suffolk Council

Martyn Fulcher - Head of Energy Planning and Coastal Management, East Suffolk Council

Ben Woolnough - Head of Planning and Building Control, East Suffolk Council

Stuart Keeble – Director of Public Health for Suffolk, Suffolk County Council

Graeme Mateer – Head of Transport Strategy, Suffolk County Council



This ASR has been signed off by a Director of Public Health.

If you have any comments on this ASR, please send them to Denise Lavender at:

Address: East Suffolk House, Riduna Park, Station Road, Melton, Woodbridge, IP12 1RT

Telephone: 0333 016 20000

Email: environmental.protection@eastsuffolk.gov.uk

Executive Summary: Air Quality in Our Area

Air Quality in East Suffolk Council

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

Table ES 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO_2)	Sulphur dioxide (SO_2) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter or $PM_{2.5}$ are particles under 2.5 micrometres.

Generally, the air quality within East Suffolk is good. Following an eighth year of NO_2 concentrations below the Air Quality Objective, a Revocation Assessment Report was produced (see Appendix F) and the remaining Air Quality Management Area (AQMA) located in Stratford St. Andrew was revoked on 18th December 2024 – a copy of the

Revocation Order can be seen in Appendix G. East Suffolk Council (ESC) no longer has any declared AQMAs within the district. Further detail regarding the revoked AQMA is provided below and in Section 2 of this report. Additional information can be seen on the Council's website at Stratford St Andrew AQMA » East Suffolk Council

The main source of emissions within East Suffolk is road traffic, and with emerging evidence on the percentage contribution of domestic burning to emissions of particulate matter this is also an important source for East Suffolk. The pollutants of concern are therefore nitrogen dioxide (NO_2) and particulate matter. Within the towns of Felixstowe and Lowestoft, emissions from, and associated with, the ports are also a source of these two pollutants.

NO_2 is measured in the district by an automatic analyser and multiple diffusion tubes. The automatic analyser is situated within Woodbridge, and in 2024 there were 94 diffusion tube monitoring locations covering 27 areas; Beccles, Blythburgh, Bungay, Farnham, Felixstowe, Halesworth, Ilketshall St. Lawrence, Kesgrave, Knodishall, Little Glemham, Leiston, Lowestoft, Marlesford, Martlesham, Melton, Middleton, Oulton Broad, Saxmundham, Stratford St. Andrew, Theberton, Trimley St. Martin, Trimley St. Mary, Tunstall, Walton, Wickham Market, Woodbridge and Yoxford.

The 2024 monitoring results show **no** exceedances of the annual mean NO_2 objective at any site - the highest recorded concentration in the district was 25.4 µg/m^3.

To improve the accuracy of data collection, a number of triplicate sets of diffusion tubes are reported. In 2024, there were 19 new monitoring locations sited, 3 to investigate concerns raised by local residents, 3 to monitor concentrations from new developments, 2 to replace sites that were difficult to access and 11 outside primary schools across the district as part of our education campaign for schools (see measure ESC 29 in Table 2.2). A total of 17 sites across the district were removed, 11 were for a 1-year schools monitoring program and were replaced at other schools, 3 showing low concentrations of NO_2, 2 replaced with alternative sites due to access difficulties, and 1 removed due to vegetation at the site becoming overgrown. Further detail is provided in Section 3.

Annual mean NO_2 concentrations within the revoked AQMA located at Stratford St. Andrew were within the objective in 2024 for the eighth year running.

There is a general trend of annual mean NO_2 reductions across the district over time. Concentrations in 2020 reduced at all monitoring locations, which is likely due to the impact of COVID-19 and associated travel restrictions. During 2021, and at some sites in

2022, there was a slight increase in NO_2 concentrations following the removal of the of travel restrictions. These trends are in line with those seen Nationally. In 2024, the overall trend at all sites in East Suffolk is a reduction in NO_2 concentrations between 2020 and 2024.

There were 3 sites which showed a slight increase in concentrations between 2023 and 2024 (concentrations still being lower than seen in 2020). We will continue to monitor at these locations for the foreseeable future to confirm trends and levels. Further detail is provided in Section 3.

In order to fulfil the council's statutory duties, ESC employ one 0.4 full-time equivalent dedicated air quality officer within the Environmental Protection Team, with support from other members of the team undertaking air quality work, including responses to planning applications.

Links and contacts have been forged through the Suffolk Air Quality Group to allow partnership working with the following organisations:

- Suffolk local authorities;
- Suffolk County Council (SCC) - Highways, Public Health and Trading Standards;
- National Highways;
- UK Health and Security Agency;
- NHS
- University of Suffolk

Liaison with the Environment Agency is undertaken as and when required for specific premises.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, there are some areas where local action is needed to protect people and the environment from the effects of air pollution.

There have been a number of actions undertaken by ESC and its partners during 2024 to help reduce pollutant emissions and/or provide information to aid with our air quality plans. These are detailed in Section 2. Key measures completed this year are:

- Revocation of the last AQMA within East Suffolk Council – located within Stratford St. Andrew.
- 5 new electric capable replacement Ae-Rubber Tyred Gantry cranes at the Port of Felixstowe.
- 48 new electric Internal Movement Vehicles (IMVs) at the Port of Felixstowe.
- Domestic Burning education campaign undertaken during Autumn/Winter 2024.
- 12 additional electric passenger cars and 13 small vans added to the Port of Felixstowe fleet.
- Opening of the Gull Wing Bridge in Lowestoft.
- Air quality monitoring undertaken outside 11 schools within East Suffolk.
- Katch-a-lift demand responsive transport scheme extension for a further year.
- Suffolk Air Quality Strategy review completed.

- Suffolk Air Quality Network officially launched with biannual meetings.
- Production of the Suffolk Local Transport Plan 2025-2040.

- £7.3 million Local Electric vehicle Infrastructure (LEVI) funding granted to Plug In Suffolk for on-street charging provision.
- ESC Local Validation List and guidance for planning applications.
- ESC Healthy Environments Supplementary Planning Document.
- Production of an Active Travel Schools Kit by Suffolk County Council.
- ESC 25% discount on annual taxi licence fees for hybrid or electric vehicles.
- Suffolk Solar Together - 182 solar PV installations within East Suffolk.

Development Consent Orders

There have been a number of Nationally Significant Infrastructure Projects (NSIPs) recently consented with Development Consent Orders (DCOs) in the ESC district and 2 others coming forward.

The Council has been involved extensively in scrutinising the proposals and participating in the Public Examinations for the consented NSIPs with regard to air quality impacts within the district, including the revoked AQMAs located at Stratford St Andrew, and Woodbridge. Our involvement is continuing – we now need to monitor the construction, in accordance with the approved plans, for Sizewell C, EA1N, EA2 and EA3 NSIPs as works begin – through key management and monitoring documents like the approved Outline Construction Traffic Management Plan, Travel Plan, Code of Construction Practice, Air Quality Management Plan, Construction Workforce Travel Plan, Dust Management Plan, Dust Monitoring and Mitigation Plans.

The Gull Wing, Lowestoft

In 2015 Suffolk County Council was given funding to identify and assess a number of ways of improving north-south connections across Lake Lothing which has culminated in the addition of a third crossing - Gull Wing. The Gull Wing should reduce traffic congestion in the town, and it is hoped will help regenerate the area and attract new investment for the local economy. The crossing opened September 2024 and additional information can be found at Gull Wing, Lowestoft – Farrans. ESC has a number of nitrogen dioxide diffusion tube monitoring locations in place around Lowestoft and Oulton Broad to monitor any changes seen in 2025 now that the bridge is open.

East Anglia ONE North and East Anglia TWO Offshore Windfarms

The DCO applications for these two projects were submitted to the Planning Inspectorate in October 2019, the Public Examinations closed on 6th July 2021 and the applications were granted consent on 31st March 2022. Pre-commencement surveys began in 2023, onshore construction commenced 2024 with energisation expected in 2027. Further detail on the DCO process is provided by the Planning Inspectorate at National Infrastructure Planning (planninginspectorate.gov.uk). ESC has a number of nitrogen dioxide diffusion tube monitoring locations in place along the main construction traffic routes to keep a close eye on concentrations as construction commences.

The Sizewell C Project

The DCO application by EDF Energy for a new nuclear power station, Sizewell C, was submitted to the Planning Inspectorate in May 2020. The Public Examination closed on 14th October 2021 and the Secretary of State granted permission on 20th July 2022. The DCO application was subject to Judicial Review in the High Court regarding water supply among other issues which was dismissed 22nd June 2023. The Final Investment Decision from the Government is still awaited, and the outcome is expected in the 2025 Spending Review. The project formally commenced on 15 January 2024, and construction is anticipated to take 9-12 years. Further detail is provided by the Planning Inspectorate at The Sizewell C Project - Project information. ESC has a number of nitrogen dioxide diffusion tube monitoring locations in place along the main construction traffic routes and other key locations to keep a close eye on concentrations as construction commences.

National Grid Electricity Transmission Sea Link

National Grid Electricity Transmission is proposing to reinforce the electricity network between Kent and Suffolk via a new, primarily offshore, 2 gigawatt high voltage direct current link. Sea Link has been designed to increase the capability of the network to carry low carbon and renewable energy from where it is generated to two million homes and businesses across the country. The onshore proposal within ESC requires a landfall between Aldeburgh and Thorpeness, a new onshore converter station near Saxmundham, a substation at Friston, onshore underground cabling between substation and converter station and an underground cable connection from the proposed converter station at Saxmundham and the landfall site.

The planning application for Sea Link was submitted in March 2025, accepted by the Planning Inspectorate in April 2025 and it is currently within the pre-examination phase. ESC officers are undertaking a full technical review of the submitted documents.

National Grid Ventures LionLink

LionLink is planned to be a new subsea cable (an interconnector) to provide an electricity link between UK and the Netherlands offshore windfarms. The onshore proposal within ESC is to connect from the proposed substation at Friston (already granted planning consent via a Scottish Power Renewables application), run an underground cable from Friston to a new converter station near to Saxmundham and then a further underground cable between the converter station and a landfall point at Walberswick.

The project is currently in the pre-application phase, with statutory consultation expected to be held in autumn 2025, including the publication of the Preliminary Environmental Information Report. ESC officers are fully involved in the pre-application phase to ensure that air quality impacts are fully investigated, and any appropriate mitigation agreed.

Conclusions and Priorities

In 2024, annual mean NO_2 concentrations within the AQMA located at Stratford St. Andrew were below the objective for the eighth year and the AQMA was revoked on18th December 2024 following production of a Revocation Assessment Report.

The general trend in NO_2 concentrations monitored throughout the district is a reduction over time - all monitoring locations were well below the annual mean Air Quality Objective in 2024.

The key priorities for ESC in 2025 with regard to air quality are to; complete the ESC Air Quality Strategy update; undertake compliance monitoring for the consented NSIPs within the district (Sizewell C, EA1N, EA2, EA3); and appraise the submitted documents and take part in the Public Examination for National Grid Ventures Sea Link NSIP.

Additional priorities for 2025 are:

- Continue to work with the SCC Public Health Team on their Air Quality Strategy, Public Engagement work and the Suffolk Air Quality Network.
- Involvement in the pre-application stages for the National Grid Ventures LionLink NSIP;
- Action a further winter solid fuel and wood burning education campaign;
- Continue work to reduce carbon emissions moving towards carbon neutral.
- Continue to work with stakeholders on the Mini Holland Scheme for Woodbridge and Active Travel scheme for Grange Road in Felixstowe.
- Continued assessment of Planning Applications for any impacts on air quality.
- Begin work on plans for the ESC Leisure Centre Decarbonisation if the funding bid is successful.
- Identification of properties eligible for the Warm Homes Suffolk Local Delivery grant funding with commencement of works where possible.
- Work will begin on the Warm Homes Social Delivery project procurement process for retrofit assessors, designer and co-ordinators and a principal contractor to carry out the works.

How to get Involved

It is really important that we hear the views and comments of our residents, as local knowledge is invaluable. We are continuously updating the air quality pages on our website, which include lots of air quality information.

If you would like to be more directly involved in environmental issues **you may wish to join the East Suffolk Greenprint Forum.** This is a voluntary network which provides a link between public and voluntary organisations and community groups to share skills and experiences as well as acting to assist local environmental action in communities and organisations. It is facilitated by ESC and its Steering Group includes representatives from local voluntary organisations. The Greenprint Forum Vision for 2030 is to see significant progress in 9 specific areas which include: active travel; eco-friendly development; energy generating homes; environmentally beneficial employment; healthy humanity; nature first; pollution free environment; quality food and upcycling culture. Membership is free and open to all.

Following collaboration with the Suffolk Local Authorities and Suffolk County Council's (SCC) Transport and Public Health colleagues, an 'Air Quality Profile' report for Suffolk was published by SCC Public Health in June 2021. The report maps, at a district and borough level, local air pollution levels and explores evidence-based interventions that can be undertaken by local authorities, businesses, communities and individuals to improve air quality. As a result of the report, air quality was made a priority by the Suffolk Health and Wellbeing board as part of their duty to "encourage integrated working" between health, care, police and other public services in order to improve wellbeing outcomes for Suffolk. The recommendations from the Suffolk Profile have also informed both the development of a Suffolk-wide Air Quality Strategy, and the Suffolk Community Engagement Plan.

The Suffolk Air Quality Strategy was published in May 2023. It has been developed in partnership between SCC's Public Health and Communities directorate and the Growth, Highways and Infrastructure directorate, with contributions from district and borough councils, NHS and the University of Suffolk. The Strategy sets out actions important to the improvement of air quality in Suffolk, identifying the lead authority for the work, timescales, and what will be achieved. Every quarter a monitoring report is published on the Healthy Suffolk website setting out progress against each of the actions identified in the Strategy. A 2023/2024 Strategy Highlights Report can also be found on the website within the 'Air Quality Strategy and Plans' section.

A strategy review and update took place at the end of 2024. Updates include an increased focus on indoor air quality, reflecting advances in data and evidence on the impacts of poor indoor air quality on health; action to support more nature friendly farming through Suffolk's County Farms Programme; and an evaluation project with the University of Suffolk looking at the impacts of school streets on Suffolk children's health

The air quality engagement plan sets out the action SCC, working with borough and district partners, aim to take to raise awareness of the health impacts of air quality in Suffolk. This will help enable individuals to make choices that protect both their health and the health of others from the harmful effects of pollution. The updated action plan, following the strategy review, is also available at healthysuffolk.org.uk/airquality (under strategy and plans).

As part of this work, in May 2024 a Suffolk Air Quality Network made up of appropriate leads and stakeholders from across the county led by the University of Suffolk was launched. The Network brings together a range of partners and stakeholders from across Suffolk to share information and best practice relating to indoor and outdoor air quality. The aim is to enhance engagement and promote more joined-up working across the County. The network meets twice a year with the next Network Challenge Lab event taking place in May 2025. **Membership of the Network is free and available to all** - if you have an interest in improving Suffolk's air quality we would encourage you to join - for further information please contact SCC by email at ph.widerdeterminants@suffolk.gov.uk

We will continue to consult with SCC Public Health colleagues and be advised by them, and national guidance, on any relevant measures that will reduce exposure to air pollutants.

So what can *I* do?

The main source of air pollution in the district is traffic on our roads, but we also have emissions from domestic burning. We are currently meeting the air quality objectives set by the Government, but it will also require a concerted public effort with each person doing their bit to help further clean the air we breathe. The following are some simple ideas we can all look at taking to help cut down the pollution we emit:

- **Use the car less** - **walk, cycle or scoot short trips** instead of driving where possible. It's a great way to reconnect with your local community, breathe cleaner air, reduce fuel bills, get some exercise and improve mental health and wellbeing. Even one journey a week could make a big difference if everyone did it –

SCC advise that if every car journey in Suffolk of less than a mile was undertaken by foot/wheels it would results in 40,000 fewer car journeys per day.
You can obtain advice on safe cycling routes, download Suffolk cycle maps and find general supportive information on cycling at Cycle - Suffolkonboard.

- **Download the Go Jauntly** mobile app for free, on either the App Store or the Play Store and enjoy over 70 miles of walking trails across East Suffolk. Walks are available in Aldeburgh, Beccles, Bungay, Framlingham, Felixstowe, Halesworth, Leiston, Lowestoft, Saxmundham, Southwold, Wickham Market and Woodbridge;
- **Work from home more often if your employer allows** – challenge your workplace to make this easier for you;
- **Use public transport** such as the bus and the train where you can. Plan your journey with The Way To Go Suffolk;
- **Investigate car sharing** with colleagues, friends and family to reduce emissions and save money. Visit Suffolk Lift Share for more information;
- **Consider going electric** - if driving is essential, you could look at going electric – hire an electric car or taxi or test drive an electric vehicle to see what it's like. We are working to improve the electric vehicle charging network within the district together with the wider charging network in Suffolk. Details of local electric charging points can be found by using zap-map and the site also gives general information about owning electric cars.
- **If you drive - don't idle** – turn off your engine when your vehicle will be stationary for 1 minute or more and it is safe to do so. One minute of car idling from the average car produces enough toxic emissions to fill 60 people's lungs. It also wastes fuel;
- **Practise Smarter Driving** - every driver can do their bit to both help emission reduction and save money - information is available from the Energy Saving Trust.
- **Avoid burning household and garden waste** – Suffolk Recycling - Suffolk County Council. If you do choose to have a fire, only burn dry garden waste and avoid burning on days that already have high pollution levels, and
- **Reduce the amount of coal or wood you burn in your home where possible** – Use alternative sources of heating such as electric or gas heaters and radiators. If you do burn, limit your emissions indoors by only burning dry well-seasoned 'Ready to Burn' wood or smokeless fuel. More information is available on the ESC 'wood burning in the home' page.

If you would like any further information on national air quality, including the latest news, air pollution forecasts, the latest measured levels and a summary, interactive monitoring, and general information about air pollution, consult the UK Air website provided by the Department for Environment, Food and Rural Affairs (Defra).

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Figures

Tables

1 Local Air Quality Management

This report provides an overview of air quality in East Suffolk Council during 2024. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) 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. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by East Suffolk Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented within Appendix E in Table E.1.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained, and provide dates by which measures will be carried out.

East Suffolk Council currently does not have any declared AQMAs. Our last AQMA located within Stratford St. Andrew was revoked 18th December 2024 – details can be seen below.

A local Air Quality Strategy is in place and currently being updated to prevent and reduce polluting activities. The Local Air Quality Strategy is available at ESC AQ Strategy 2021.

Suffolk County Council has recently published its Suffolk Local Transport Plan 2025 - 2040 which is a 15-year strategy that highlights the council's long-term ambitions for the transport network. One of the main 4 themes within the Transport Plan is the decarbonisation of transport with strong links to active travel and public transport use. Within the theme of Health, Well-being and Social Inclusion, clean air and improvement of air quality is included.

AQMA Order No. 3, 2014 located at Stratford St. Andrew – revoked

Following consistent reductions in NO_2 concentrations within the AQMA located at Stratford St. Andrew since 2015, the decision was made to revoke this AQMA. In 2023 concentrations had been below the objective level for seven consecutive years, with the maximum annual mean for 2023 being 26.2 µg/m^3. Concentrations at all monitoring locations in the AQMA had been outside of 10% of the NO_2 annual mean objective of 40µg/m^3 (<36 µg/m^3) for four consecutive years. During the Covid-19 pandemic there was a large reduction in concentrations in 2020 which then rose slightly in 2021 and 2022. For further monitoring information see section 3 in this report.

A draft Revocation Assessment presenting evidence to support the revocation of the AQMA located at Stratford St. Andrew was produced, taken to the Steering Group and finalised.

The assessment considered the historical monitoring data, projected NO_2 concentrations over the next five years, local and national trends in NO_2 emissions, and local and regional factors that may impact on the AQMA. This included the Nationally Significant Infrastructure Projects (NSIPs) expected to commence within East Suffolk – including Sizewell C, and the East Anglia One (North) and East Anglia Two offshore windfarms. This report is presented in Appendix F of this ASR. Defra appraisal of the monitoring data confirmed revocation should be undertaken following the 2024 ASR. Public consultation on the Revocation Assessment findings and the intention of ESC to revoke the AQMA ran from October to December 2024.

The Council received 3 responses to the consultation, the results were collated and placed on the ESC website at Consultation summary - Stratford St Andrew AQMA revocation. All respondents were replied to individually.

On 18th December 2024 the Suffolk Coastal District Council AQMA Order No. 3, 2014 located within Stratford St. Andrew was revoked following the findings of the revocation assessment and the results of the public consultation. A copy of the Revocation Order is attached in Appendix G.

Air quality monitoring within the revoked AQMA and at Stratford St. Andrew has continued and annual mean NO_2 concentrations continue to fall in 2024. The maximum annual mean NO_2 concentration recorded in the revoked AQMA in 2024 was 23.7 µg/m^3. Diffusion tube monitoring results can be seen in Section 3 of this document.

Our monitoring regime will not alter - the Council will continue to monitor air quality in Stratford St. Andrew and along the A12. This is particularly important as the Early Years works have now started for Sizewell C, construction associated with cabling has begun for the EA3 Offshore Windfarm, and initial surveying work has started for both the EA1N and EA2 Offshore Windfarms. We will be keeping a close eye on nitrogen dioxide concentrations at this location, and across the district, and working closely with each project individually and cumulatively.

2.2 Progress and Impact of Measures to address Air Quality in East Suffolk

Defra's appraisal of last year's ASR (2024) concluded that the report was well structured, detailed, and provides the information specified in the Guidance. The conclusions reached were accepted for all sources and pollutants. The following comments received from Defra are designed to help inform future reports;

1. The AQMA designations have been reviewed. It is clear in the ASR that consultation has been undertaken with the relevant stakeholders and the revocation process has begun. Noted with thanks, the revocation was completed in December 2024.
2. New monitoring locations have been deployed during 2023. These are clearly discussed within the report, giving clear reasoning for the new locations. Noted and repeated in this report.
3. Some measures listed within the measures table were completed over five years ago. It is suggested that the table is reviewed in the 2025 ASR to remove any completed and no longer relevant measures. Noted and corrected within this report – we have removed those measures which have been completed and are no longer relevant.
4. The current AQAP has not been updated within the last five years, however all AQMAs will be revoked by the end of 2024 due to ongoing compliance with the relevant objectives. East Suffolk are encouraged to begin implementing an Air Quality Strategy during 2024. Noted. East Suffolk Council has an Air Quality Strategy which is in the process of being updated in 2025.
5. The maps within the ASR show the AQMA boundary. Although the AQMA is small, the figure is too far zoomed out to show the true extent of the boundary. In addition, the monitoring locations are presented but not all are labelled. Where some are labelled, it is not clear which monitoring location the label refers to on the provided map. This should be improved in the 2025 ASR for clarity. Noted and corrected within this report.
6. The ASR has been signed off by the relevant Director for Public Health, which is welcomed and shows wider engagement. Noted and repeated within this report.

7. Overall, the report is detailed, thorough and satisfies the criteria of relevant standards. The Council should continue their good work. Noted with thanks.

East Suffolk Council have taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. As suggested by Defra in their appraisal report last year, we have removed a number of measures which have been completed and are no longer relevant – measures number ESC 8, 9, 12, 15, 19, 20, 25, 27, 31, 34, 37, 39, 41, 43, 44, 47, 48 and 51. In addition, due to revocation of our last AQMA located at Stratford St. Andrew in December 2024, associated measures which are no longer relevant have been removed from the table. We have kept measures STA 7 and STA 8 but have renamed them ESC 56 and ESC 57 as they are on-going.

32 measures are included within Table 2.2, with the type of measure and the progress East Suffolk Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

Key completed measures are:

- Revocation of the last AQMA within East Suffolk Council – located within Stratford St. Andrew.
- Delivery and commissioning of 5 new electric capable replacement Ae-Rubber Tyred Gantry cranes (RTGs) at the Port of Felixstowe. These will replace diesel RTGs.
- Delivery of 48 new electric Internal Movement Vehicles (IMVs) at the Port of Felixstowe with commissioning during 2024. These will replace diesel IMVs.
- Domestic Burning education campaign undertaken during Autumn/Winter 2024 to continue increasing public awareness of the issues surrounding health.
- Purchase of 12 additional electric passenger cars and 13 small vans to add to the Port of Felixstowe's small electric vehicle fleet.
- Opening of the third vehicular crossing of Lake Lothing in Lowestoft (Gull Wing Bridge) in 2024.
- Air quality monitoring undertaken outside 11 schools within East Suffolk together with promotion of the air quality schools resources to those schools.
- Katch-a-lift demand responsive transport scheme has been extended for a further year.
- Suffolk Air Quality Strategy review completed.

- Suffolk Air Quality Network officially launched with biannual meetings.
- Production of the Suffolk Local Transport Plan 2025-2040.
- £7.3 million Local Electric vehicle Infrastructure (LEVI) funding granted to Plug In Suffolk for on-street charging provision with plans for delivering over 6,500 new public charge points across the county.
- Production of the East Suffolk Council Healthy Environments Supplementary Planning Document.
- Production of the East Suffolk Council Local Validation List and guidance for planning applications.
- Production of an Active Travel Schools Kit by Suffolk County Council Public Health.
- East Suffolk Council discount of 25% for annual taxi licence fees for any hybrid or electric vehicles.
- Suffolk Solar Together have facilitated 182 solar PV installations (2,149 panels providing 924 KW) within East Suffolk.

East Suffolk Council expects the following measures to be completed over the course of the next reporting year:

- Delivery of 6 new electric capable replacement Ae-Rubber Tyred Gantry cranes at the Port of Felixstowe. These will replace diesel RTGs and associated emissions will be reduced (ESC 1).
- A further domestic burning education campaign undertaken during Autumn/Winter to increase public awareness of the issues surrounding health and provide advice on how to reduce emissions from any burning that does occur. It is hoped this will lead to emission reductions from this sector (ESC 11).
- Undertake NO_2 diffusion tube monitoring at 10 additional primary schools within the district to help inform on air quality (ESC 29)
- Production of the East Suffolk Council Air Quality Strategy update following revocation of the last AQMA in 2024. This will help focus and lead our air quality work and hopefully lead to emission reductions across the district (ESC 35).
- Completion of the Port of Felixstowe Air Quality Strategy which will hopefully lead to further emission reductions from this sector (ESC 36).
- Delivery of the updated East Suffolk Council Net Zero Plan which will lead our work to decarbonise, also delivering air quality improvements (ESC 45).
- Delivery of Clean Air Day 2025 promotion and events (ESC 65).

East Suffolk Council's priorities for the coming year are;

- Completion of the ESC Air Quality Strategy update. The Strategy will provide important information to help to shape Council policies and air quality work and thereby provide emission reductions.
- Continue to work with the SCC Public Health team on their AQ Strategy, Public Engagement work and the Suffolk Air Quality Network – input from the Suffolk District and Borough Councils is vital for this work in order to ensure that our residents are represented.
- Continue to regulate of all Part B and Part A(2) industrial processes (authorised under the Local Authority Pollution Prevention and Control (LAPPC) regime) within the East Suffolk district.
- Involvement in the public examination for National Grid Electricity Transmission Sea Link (NSIP) to ensure that air quality impacts are fully investigated, and any appropriate mitigation agreed. Sea Link will bring power from subsea cables into and out of the electricity network in Suffolk and will require new onshore converter stations, substations, underground and overhead electricity lines and upgrading to current overhead electricity lines. Sea Link is currently within the pre-examination phase.
- Involvement in the pre-application phase for National Grid Ventures LionLink (NSIP) to ensure that air quality impacts are fully investigated, and any appropriate mitigation agreed. LionLink is the plan to build a new subsea cable (an interconnector) to provide an electricity link between the UK and the Netherlands.
- Compliance monitoring of the construction phase, in accordance with the approved plans, for Sizewell C, EA1N, EA2 and EA3 NSIPs - Outline Construction Traffic Management Plan, Travel Plan, Code of Construction Practice, Air Quality Management Plan, Construction Workforce Travel Plan, Dust Management Plan, Dust Monitoring and Mitigation Plans. This work will help to ensure that impact on air quality is minimised from these developments.
- Action a further winter solid fuel and wood burning education campaign. Defra advise that domestic solid fuel burning is a major contributor to fine particulate matter emissions both indoors and outdoors. Increasing public awareness of the issue is key to obtaining emission reduction.

- Continue work to reduce carbon emissions moving towards carbon neutral. There are many synergies between carbon reduction and air quality – reduction of one will aid the other in most cases and continued work in this area is important.
- Continue to work with stakeholders on the Active Travel Woodbridge Scheme and Active Travel scheme for Grange Road in Felixstowe. Both schemes will improve active travel in these areas and therefore reduce emissions associated with road transport.
- Continued assessment of Planning applications for any impact on air quality within the district is an on-going and important role of the Environmental Protection team.
- If the ESC Leisure Centre Decarbonisation funding bid is successful work will begin on these plans. This should reduce emissions associated with this sector (which currently runs on gas) within the district.
- Identification of properties eligible for the Warm Homes Suffolk Local Delivery grant funding with commencement of works where possible. This should reduce emissions associated with heating use particularly within the more deprived areas of the district.
- Complete the DESNZ Funding Agreement for the Warm Homes Social Delivery Wave 3 project and start procurement of the Retrofit Assessors, Designer and Coordinators in addition to a Principal Contractor to carry out the capital works.

East Suffolk Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Suffolk County Council Highways and Transport
- Suffolk County Council Public Health
- Neighbouring Suffolk Local Authorities - Ipswich Borough Council, West Suffolk Council and Babergh/Mid Suffolk District Council
- Port of Felixstowe
- East Suffolk Greenprint Forum
- Suffolk Climate Change Partnership
- Plug In Suffolk
- Lowestoft Town Council (Lowestoft Town Centre Masterplan)
- Woodbridge Town Council and Melton Parish Council (active travel Woodbridge)

The principal challenges and barriers to implementation that East Suffolk Council anticipates facing continue to be;

- Recruitment and retention in the field of Environmental Health/Protection has proved challenging in recent times.
- Low public appetite for reductions in domestic solid fuel burning.
- The rural nature of a large proportion of the ESC district brings difficulties in reducing car usage, increasing public transport use and active travel. The two temporary community transport schemes within the district are continuing in order to help those rural communities with the difficulties they face.

Progress on the following measures has been slower than expected due to:

- Increased use of rail transport by the Port of Felixstowe – there is a bottle neck at Ely which reduces the capacity of the Branch Line to add more freight paths.
- Update of the ESC Air Quality Strategy – delayed historically due to staffing resource which has now been solved in 2025 allowing work on the Strategy update to progress.
- Active Travel Scheme, Grange Road, Felixstowe – this is not progressing as quickly as expected at this stage – we are unsure why.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
ESC11	Provision of information to the Public and commerce on reducing emissions from solid fuel and wood burning	Public Information	Via the Internet	2018	Ongoing	ESC	ESC	Funded	< £10k	Implementation	Unknown	Information available on East Suffolk website. Information disseminated to the Public and commercial sectors.	2018/19 - Council website page on biomass and wood burning added and publicised. Article in Greenprint Forum newsletter. Information sent to 300 businesses in Suffolk, all Parish Councils, highlighted to all air quality Consultees during ASR 2017 Consultation, leaflets provided at Business drop-in events. Wood burning information promoted during Clean Air Day 2019 and 2020 and updated on website. Domestic burning information campaign undertaken Winter 2018, 2021, 2022, 2023 & 2024.	There appears to be little public appetite to reduce solid fuel use. We are hoping to raise awareness of the health impacts and in turn reduce usage.
ESC 53	Plug In Suffolk Installing electric vehicle charging infrastructure within the East Suffolk district.	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2026	SCC	SCC	Funded	£1 million - £10 million	Implementation	Emission reductions in ESC	Adoption of Suffolk EV Charging Infrastructure Strategy. Number of EV charge points installed across Suffolk and in ESC Provision of on-street charge points	Suffolk EV Charging Infrastructure Strategy 2023-2028 adopted. 2023 - 100 charge points installed at 31 locations in Suffolk. Within ESC charge points installed at Beccles, Bungay, Carlton Colville, Framlingham, Grundisburgh, Rendlesham, Reydon, Saxmundham, Southwold and Ufford. 2024 – £7.3 million LEVI funding for on-street charging provision with over 6,500 new public charge points. Public asked to send in location options. Investigating list of options for Highways constraints and connection viability.	SCC has developed 'Plug In Suffolk' - a project to simplify the procedure of charging an electric car and make Suffolk Zero Emission Vehicle ready. Plug In Suffolk Community Grant available - first Phase heavily over-subscribed. Re-allocated to new Local Electric vehicle Infrastructure (LEVI) pilot funded second phase which has £7.3m funding. Will focus on 'on-street' charge point installation. Aim is to eventually cover almost every possible publicly accessible car park in Suffolk so that everyone who has a contactless payment system on them can use the chargers.
ESC 57 (linked to previous measure STA 8)	Mitigation of construction impacts on air quality from Nationally Significant Infrastructure Projects (NSIPs) within the East Suffolk district	Policy Guidance and Development Control	Low Emissions Strategy	2025	2036	ESC, EDF Energy & Scottish Power Renewables	ESC, EDF Energy & Scottish Power Renewables	Funded	Unknown	Implementation	No significant increase in concentrations from road traffic Mitigation and minimisation of air quality emissions and impacts from NSIPs construction	Percentage of low emission vehicles in fleet. Provision of agreed associated developments for Sizewell C (SZC) No significant increase in NO2 concentrations at diffusion tube sites Submission of monthly air quality monitoring reports for SZC Compliance with the relevant submitted Management Plans	Development Consent Order (DCO) granted for EA1N & EA 2 Offshore Windfarms in March 2022 and for Sizewell C (SZC) in July 2022. Both projects commenced 2024. Work undertaken by ESC and applicants during the DCO process to provide mitigation for air quality impacts during construction. EDF Energy committed to 92% of construction fleet to be EURO VI vehicles for SZC. EA1N &EA2 applicant has committed to 70% of HGVs complying with EURO VI standards where the construction periods of this project, the other East Anglia project and the SZC project overlap and the two villages bypass is not in place. EDF Energy for SZC has committed to associated developments including Two Villages Bypass of Farnham and Stratford St. Andrew, 2 x off site park and ride sites at Wickham Market and Darsham, Sizewell Link Road, Freight Management Facility at Nacton, accommodation campus, new roundabout on A12 at Yoxford and other Highway Improvements. Management/Mitigation Plans to be produced - Construction Workforce Travel Plan, Construction Traffic Management Plan, Dust Management Plan, Code of Construction Practice. EA1N & EA2 consent includes requirement to submit Construction Management Plan, Travel Plan, Code of Constriction Practice and Air Quality Management Plan. **2024** - SZC reporting shows to date almost 100% EURO VI HGVs for construction with hydrogen buses to transport workers. EA1N and EA2 will begin reporting shortly. Initial archaeological and ground clearing work has	DCO application for Sizewell C submitted with an integrated transport strategy which includes up to 1,000 HGV on busiest day at peak, 650 HGV average day at peak, a Two Village Bypass of Stratford St Andrew and Farnham agreed and should be available for use by peak construction which will bypass the now revoked AQMA. Current estimate is bypass open end of 2026/ beginning 2027. Modelling of the potential impact on the AQMA and across the district has been conducted for both SZC and EA1N & EA2 including cumulative impacts and has been scrutinised, discussed and accepted by ESC as part of the DCO process. ESC's aim is to inform mitigation measures to try and prevent or minimise any increase in air pollutant concentrations within the district. Management Plans are submitted and assessed by ESC for each location of works as and when required for the construction program.

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													started on all SZC associated developments. NO2 concentrations at monitoring sites along the relevant road network have either fallen or remained static between 2023 and 2024. Management Plans have been submitted and agreed for relevant packages of work by the Local Planning Authority. Monthly air quality monitoring reports are being submitted by SZC and scrutinised. ESC received one complaint regarding air quality concerns due to emissions from congestion at the area of construction work for the Yoxford roundabout site. The complaint was investigated and no action was deemed necessary due to the short duration (3-days) of the works).	
ESC1	Evaluate and implement efficient power technologies for cargo handling equipment in the Port of Felixstowe	Promoting Low Emission Plant	Other measure for low emission fuels for stationary and mobile sources	2010	Ongoing	Port of Felixstowe	Port of Felixstowe	Funded	> £10 million	Implementation	Unknown	Number of RTG Cranes using improved efficiency power source. Number of blocks converted to electric.	As of Jan 2025, 58 of the 90 RTG's in use on the Port are now electric capable (42 e-RTGs and 16 Ae-RTGs). Ae-RTGs are remote controlled. The Port plan to replace the remaining diesel units over the coming years. 6 Ae-RTGs were delivered in 2023, 5 in 2024 and 6 more are due in 2025. The 11 from 2023 and 2024 are now commissioned and in use. The additional 6 have been delivered but not commissioned as yet. Additional container zone electrification is now planned to coincide with the introduction of the 17 new Ae-RTGs over the next 3 year period on Landguard Terminal (Berths 8 & 9). 38 blocks already converted to electric. Technical specifications prepared for a further 12 blocks, work commenced 2023 with completion scheduled for 2025. Additional electrical sub-stations installed on Berths 8 & 9 in 2023 to provide additional electrical capacity required for this work. Conversion of the remaining 10 blocks serving Berths 8&9 not yet programmed.	The Port's net-zero plan includes a programme to replace their entire fleet with battery-powered or alternative fuel options by 2033. To mitigate the increase in electricity demand the Port has been progressing energy efficiency projects and renewable energy generation (Solar PV). 2024 - generated 413MWh of energy from solar power. Quay crane lighting upgrade project fitted LED to 12 cranes - reduced energy usage. The Port successfully commissioned an all-electric RTG - does not require use of a diesel engine to transfer it between blocks, uses lithium ion battery - therefore emissions free. Technical specification was completed for replacing RTGs with these, but this is no longer being pursued. Preferred option is electrification of container blocks with conductor rail system.
ESC2	Adopt NOx abatement technologies on Internal Movement Vehicles (IMVs) at the Port of Felixstowe	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2010	Ongoing	Port of Felixstowe	Port of Felixstowe	Funded	> £10 million	Implementation	Unknown	Number of IMVs replaced. Reduction in NO_2 concentrations at the Port.	83 IMVs replaced 2011-2016. 52 IMVs replaced 2017/2018. 17 replaced 2019. Total of 135 of the 260 units replaced 2020. 2 x new internal tractors for roll-on roll-off operations in 2018. IMVs are replaced on a 15 year cycle. Additional electrical sub-stations and charging stations installed 2023, 48 new electric IMVs delivered end 2023 and all in service 2024. Current plan - new IMVs will be electric prior to transferring to alternative fuel useage (hydrogen). 2 new battery powered autonomous trucks ordered 2022 for internal container movement. Autonomous Truck (AT) project has progressed - 100 ATs ordered, delivery commenced 2023. 34 are now on site and progressing through the implementation process. General reduction in annual mean NO_2 over time - between 2018 and 2024. 2 new sites in 2023 show a slight increase in 2024 but still within the Air Quality Objective.	The Port's net-zero plan includes a programme to replace their entire fleet with battery-powered or alternative fuel options by 2033. Pre-2020 all new IMVs utilise Adblue as part of exhaust gas recirculation technology and comply to Euro VI emissions standards. Expected to deliver a 10% reduction in emissions compared with a conventional tractor unit. IMVs post-2020 are electric. 2021, 2 x air quality sensors purchased (South Coast Science Praxis units). Installed 2022 at Dock Gate 2 and Trinity Quay. Data sets will be shared in the Port's Air Quality Strategy update. . NO_2 monitoring results from the PoF for 2019 and 2020 could not be used.
ESC3	Increased use of rail transport for movement of goods at the Port of Felixstowe	Freight and Delivery Management	Other	2018	Ongoing	Port of Felixstowe	Port of Felixstowe	Funded	Unknown	Implementation	unknown	Number of daily freight services. Percentage rail modal share.	33 daily freight services from the Port **2019/20**. This fell slightly in 2020 due to impact of Covid-19 pandemic but recovered and increased to 37 in **May 2021** and during **2022.** Made possible due to demand for additional services and a significant reduction in the demand for passenger services due to the Covid-19 pandemic which has opened up	Modal shift to rail is a top priority for the Port and senior managers liaise with Government frequently. The branch line improvement (opening of the Trimley Loop) has increased the theoretical freight capacity of the Branch Line to 45-47 daily paths, however there is a bottleneck at Ely. 2021 - the Port were

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													opportunities. **2023** - 32 daily freight services with the Port continuing to maximise length of each. **2024** – 35 daily freight services. 28% rail modal share 2018 and 2019. This again fell slightly in 2020 due to Covid-19 pandemic but is recovering again and back to 28% in 2021, 2022 and 2023, slight decrease to 27.5% in 2024.	advised that there were still a few freight service path opportunities available on the Felixstowe-Nuneaton corridor despite the lack of progress at Ely and elsewhere.
ESC7	Assessment of planning applications for impact on air quality	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	Ongoing	Ongoing	ESC Environmental Health and Planning	ESC Environmental Health and Planning	Funded	£50k - £100k	Implementation	Unknown	Number of Planning applications considered.	Officers in Environmental Protection work with Planning to ensure that each relevant application is appropriately assessed for air quality impacts and responses sent to Planning where necessary. Planning applications processed by Environmental Protection Team; **2018**=1,282, **2019**=1,075, **2020**=1,026, **2021**=1,024, **2022**=1,010, **2023**=1,119, **2024**=927	The assessment process takes account of national guidance (including EPUK / IAQM) and local procedures. The Environmental Protection Team also deal with many requests for pre-application advice from applicants. Figures for planning applications processed do not include pre-application advice from 2019 onwards.
ESC11	Provision of information to the Public and commerce on reducing emissions from solid fuel and wood burning	Public Information	Via the Internet	2018	Ongoing	ESC	ESC	Funded	< £10k	Implementation	Unknown	Information available on East Suffolk website. Information disseminated to the Public and commercial sectors.	2018/19 - Council website page on biomass and wood burning added and publicised. Article in Greenprint Forum newsletter. Information sent to 300 businesses in Suffolk, all Parish Councils, highlighted to all air quality Consultees during ASR 2017 Consultation, leaflets provided at Business drop-in events. Wood burning information promoted during Clean Air Day 2019 and 2020 and updated on website. Domestic burning information campaign undertaken Winter 2018, 2021, 2022, 2023 & 2024.	There appears to be little public appetite to reduce solid fuel use. We are hoping to raise awareness of the health impacts and in turn reduce usage. In Autumn/Winter 2025 we aim to utilise social media and campaigns in order to change our approach to engaging with the public. Our aim is to increase public knowledge on and wider engagement with the issue.
ESC13	Promotion of travel alternatives for ESC staff	Promoting Travel Alternatives	Promotion of cycling	2013	Ongoing	ESC	ESC	Funded	Unknown	Implementation	Unknown	Number of tax free 'Cycle 2 Work scheme' bike purchases. Miles undertaken by ESC staff and Members for work journeys	Council promotes cycling and walking for its staff. Tax free bike 'Cycle 2 Work scheme' started 2013. Bikes purchased; **Oct 16 - Apr 18** - 19 bikes **2018/19** - 14 bikes, **2019/20** - 4 bikes, **2020/21** - 0 bikes, **2021/22** - 8 bikes, **2022/23** - 5 bikes, **2023** - 11 bikes **2024** – 7 bikes Business mileage rate for cycling. 2 pool bikes at East Suffolk House. Staff and elected members recorded miles by bike: **2022/23** - 343.9; **2023** - 495.7 miles; **2024** – 350 miles	Riduna Park Lowestoft has covered and secure cycle parking/racks for 40 bikes, shower/changing/ drying facilities and lockers. Travel Survey 2017 indicated increased number of staff who cycle to work. Emergency Ride Home scheme in place.
ESC21	Third vehicular crossing of Lake Lothing - Gull Wing Bridge Lowestoft	Transport Planning and Infrastructure	Other	2010	2023	SCC	SCC	Funded	> £10 million	**Completed**	Unknown	Lake Lothing Third Crossing open. Reduction in NO_2 concentrations in Lowestoft Town Centre (Bascule Bridge) and Oulton Broad	2020, development consent granted for the Lake Lothing Third Crossing in Lowestoft. Construction began April 2021. Gull Wing crossing opening delayed. **Opened September 2024.** Aims to reduce traffic congestion in Lowestoft, help regenerate the area and attract new investment for the local economy. NO_2 diffusion tube results to date, pre-Gull Wing, show a trend of reduction over time. Highest recording site at Bascule Bridge (LOW 6) NO_2 annual mean 2024 = 26µg/m^3.	Lengthy timescale. Approximate costs in excess of £80million. Possible construction delays due to Covid-19. New crossing could result in a large reduction of traffic congestion in Oulton Broad and the Lowestoft Town Centre. Diffusion tube monitoring sites for NO_2 have been located at relevant sites around Lowestoft and Oulton Broad to monitor changes – will use results from 2025 onwards.
ESC 29	Work with schools to raise awareness of air pollution and promote Active Travel including anti-idling events	Public Information	Via other mechanisms	2019	ongoing	ESC, SCC	ESC, SCC	Funded	< £10k	Implementation	Unknown	Number of events	Temporary officer employed - undertook 7 anti-idling events at schools and 2 Air Quality Ambassador events at the Council Offices involving 8 schools for Clean Air Day 2019. Graduate intern employed 2019/20, undertook an assembly on air pollution alongside an anti-idling event at 8 more schools in ESC. Nov 2021 - theatre production company (funded by SCC) undertook online (due to covid) air quality performances at 9 schools in ESC and provided school resource packs -	2023 - graduate intern employed for 8 months to undertake this project. Graduate has now finished and no resource replacement. It can be difficult to engage with schools possibly due to the amount of other priorities that they have together with staff resource required from both ESC and the school.

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													'Abbie Ayre and the Shed of Science'. Clean Air Day school resources promoted to all schools by County Council June 2022. 10 more theatre productions in ESC schools 2023 and NO_2 monitoring undertaken outside those schools 2023. Results sent to schools with links to air quality resources. NO_2 monitoring undertaken outside 10 more schools during 2024 and results sent to those schools with links to air quality resources.	
ESC 30	Promotion of cycling	Promoting Travel Alternatives	Promotion of cycling	Historic	2021	ESC and SCC	ESC and SCC	Funded	Unknown	Implementation	Reduced vehicle emissions	Production of Cycling and Walking Strategy for ESC. Number of bikeability lessons delivered in schools within ESC.	ESC Walking and Cycling Strategy adopted 2022. ESC and SCC webpages on cycling. SCC delivered within ESC; 106 Bikeability courses September 2018 - July 19 (1,272 children). **2021** - 98 courses (1,176 children) in ESC. **2022** - 101 courses (1,212 children) in ESC **2023** - 3,769 children in Suffolk got Level 2. **2024 -** 3,191 children in Suffolk got Level 2. Park & Cycle from Martlesham Park & Ride to Ipswich Town Centre introduced - park for free and cycle to Ipswich. New Bike Library at Phoenix St. Peter school In Lowestoft – years 5 and 6 have a free bike loan and bikeability training. SCC Local Cycling and Walking Infrastructure Plan published Oct 2024. 2024 – SCC carried our free bike fix sessions within Suffolk including Felixstowe. Sessions are continuing across Suffolk. SCC offering a number of weekly cycling and walking groups within Lowestoft. Via Modeshift Stars for Schools (SCC) Phoenix St Peter in Lowestoft set up a bike library - free bike loans for years 5 & 6 and bikeability training – increased no. children cycling to school.	ESC website - information on cycling https://www.eastsuffolk.gov.uk/leisure/cycling/ SCC webpage https://www.suffolkonboard.com/cycle/ - free cycle maps for Beccles, Felixstowe, Halesworth, Lowestoft and Woodbridge and information on cycling. Walking and cycling to school - Suffolk County Council - information on cycling to school & bikeability. Unable to obtain bikeability breakdown for ESC from 2023 onwards – figures now for all of Suffolk.
ESC 32	Norse consultant assessed alternative fuels	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2020	On-going	Norse	ESC and Norse	Funded	Unknown	**Completed**	Reduced vehicle emissions	Number of vehicles using HVO	Ambition to migrate all of the existing Council fleet (including those used by our partners) to a low carbon alternative. Hydrogen technology will be investigated in the medium term (5+ years) with an interim solution to be chosen to take forward in 2021/22. Interim solution Hydrotreated Vegetable Oil (HVO); **2022** - 50 of 51 Refuse Collection Vehicles using HVO and 8 Housing Fleet vehicles. **2023** - 57 Heavy Goods Vehicles and 91 light vehicles using HVO. **2024** - 56 Heavy Goods Vehicles (refuse and cleansing) and 51 light vehicles using HVO (22 Of the Housing Fleet and 29 ESC other fleet – waste, maintenance etc). This measure has now been marked as completed as the use of HVO is in place. Should the use of an alternative fuel be considered in the future it will come back in as a new measure. **This measure will be removed from the table next year.**	Hydrogen technology is not at the stage where it would be a feasible alternative at the current time for the Council's fleet so an interim solution is being looked at. Hydrogen technology will continue to be looked at in the long term. 2024 - Use of electric vehicles is not an option in the medium term due to infrastructure changes that would be required to put charging in place. HVO will therefore be the chosen fuel for the short and medium-term, so this measure is now completed.
ESC 33	The Lowestoft Town Centre Masterplan - improvements to cycling, walking and public transport	Transport Planning and Infrastructure	Other	2020	Unknown	ESC, Lowestoft Town Council, Lowestoft Vision, Suffolk County Council and Suffolk Chamber of Commerce	ESC	Funded	Unknown	Planning	Unknown	n/a	Masterplan has moved into the Feasibility Stage and a bid for the Town Funds Money is being developed. Lowestoft Town Investment Plan 2021-31 developed with more detail on work planned and funding including that secured, requested from the Towns Fund and unfunded as yet. Gateway Improvements to Lowestoft Port and the Station Quarter and Cultural Quarter improvements are all planned to improve accessibility and connectivity for walking and	The aim of this masterplan is to decrease traffic and emissions which hopes to encourage more cycling and pedestrian opportunities. This ideally will balance the different modes of travel through Station Square. All work in the Masterplan will need reviewing after the opening of the Gull Wing bridge as this should help ease congestion within the Town. The Masterplan links with the Lowestoft transport and infrastructure

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													cycling across the Town. Masterplan is also looking at a new public transport link connecting central Lowestoft along the north-south access - one idea is an electric tram system. Awaiting opening of Gull Wing bridge before any further work undertaken. 2024 – many of the Masterplan projects to restore historic buildings, regeneragte the area with restaurants, shops and leisure facilities and increase the quay capacity of the Port are now underway.	projects which aim to deliver improvements around Lowestoft including a key theme of sustainable travel and investment in pedestrian, cycle and bus infrastructure.
ESC 35	ESC Air Quality Strategy Update	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2025	ESC	ESC	Funded	< £10k	Implementation	n/a	Adoption of Strategy. Strategy updates.	Strategy drafted and approved by ESC Cabinet June 2021. Updated Strategy will include complete rewrite following removal of last AQMA December 2024. Public engagement undertaken start of 2025. Draft due to be completed Autumn 2025 to take to ESC Cabinet for approval.	
ESC 36	Port of Felixstowe Air Quality Strategy	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2019	2020	Port of Felixstowe	Port of Felixstowe	Funded	Unknown	Implementation	n/a	Adoption of Strategy. Update provided every 3 years.	In December 2019 a Statement of Intent was produce. The Port Air Quality Strategy was produced 2020. Scheduled review of Strategy commenced 2023 to accommodate inclusion of the Port's decarbonisation plan. Update due 2024, now due 2025.	Strategy includes a number of measures to reduce emissions from the Port. The most relevant are included in measures above - ESC 1, 2 and 3. Update will reflect air quality synergies from Hutchinson Ports decarbonisation strategy.
ESC 38	Katch and Buzz About - trial demand responsive bus services	Alternatives to private vehicle use	Other	2020	2025	ESC Coastal Accessible Transport Service (CATS) for Katch BaCT (charity for community transport in the Waveney area) for Buzz About	ESC SCC and Coastal Accessible Transport Service (CATS) for Katch BaCT (charity for community transport in the Waveney area) for Buzz About	Funded	£50k - £100k	Implementation	Reduced vehicle emissions	Continuation of the service	'Katch a Lift' started May 2021 as a 1-year trial subsidised demand responsive taxi service using an electric vehicle covering Framlingham, Wickham Market and Campsea Ashe train station run by the County Council. Extended to Dec 2022 due to Covid-19 impacts. Scheme completed and taken over by ESC for a further 1-year trial using a diesel bus and adding Snape, Parham, Hacheston, Tunstall. Trial extended by ESC for a further 12 months to March 2025 to see whether passenger numbers can be boosted. Scheme extended for another year until 31st March 2026. From May 2025 scheme will also cover Brandeston, Easton, Rendlesham and Blaxhall and will drop school children to and from Framlingham College and Thomas Mills HS in Framlingham. Looking to extend the scheme after the next contract if possible – a lot of interest from other parishes. Buzz About is a demand responsive bus service for 2 days a week covering Lowestoft, Gunton, Lound, St Olaves, Blundeston and Oulton. In 2023 it had been running for 2 years and has funding to continue for a further 2 years. Looking to try and renew the contract for 1st April 2026 with interest to increase days it runs.	First trial of Katch-a-Lift installed private electric charge points at Campsea Ashe train Station for the taxi. Taxi must be booked in advance using phone or app. Initial uptake may be slow due to public's response to Covid-19 pandemic. Katch-a-lift taken over by ESC to run for a further year between Framlingham and Snape via Wickham Market railway station, also including other towns but using a diesel bus not electric. The 2 electric buses used originally needed to be on charge 50% of the time as the coverage was insufficient which caused problems. Cost to hire the buses was very large so not viable. Buzz About runs on a Tuesday and Thursday and uses Government Funding to run - some areas covered do not have any other bus service to them. Both schemes will have positive benefits for air quality but also many other Community benefits including reducing isolation.
ESC 42	Small electric vehicle fleet at the Port of Felixstowe	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2021	On-going	Port of Felixstowe	Port of Felixstowe	Funded	Unknown	Implementation	Reduced vehicle emissions	Number of small fleet electric capable vehicles	The Port has added to its fleet of EV small vehicles to replace diesel vehicles and now operates 15 EV passenger cars and 2 EV small vans. 2 EV cars and 4 EV vans were added in **2023** so fleet now comprises 17 EV passenger cars and 6 EV small vans. **2024** – 29 EV passenger cars and 19 EV small vans	All replacement vehicles will be zero emission from 2023 onwards.
ESC 45	ESC to reduce carbon emissions moving	Other	Other	2019	2030	ESC and Suffolk Climate Change Partnership including	ESC, Suffolk Climate Change Partnership	Partially Funded	Unknown	Implementation	Emission reductions across ESC	Project involvement	East Suffolk Environment Task Group set up - cross-party group to analyse policies and identify areas for improvement. Task Group meets quarterly and reports to Cabinet. Intention is to thread the environment	The 2024 ESC Environmental impact Strategy includes over 100 workstreams which will help to reduce carbon emissions.

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	towards carbon neutral by 2030					Environment Agency, Groundwork Suffolk and University of Suffolk							through all decisions, choices and policy formation. 2020 – Environmental Guidance Note for the Building Industry published. 2021 - Launch of Small Grants Scheme for projects to develop active sustainable travel. Sustainable Development Supplementary 2022 - Sustainable Development Supplementary Planning Guidance adopted March 2023 - Production of East Suffolk Climate Action Framework - summarises our approach to tackling climate emergency and prioritises over 60 climate change related workstreams. The Suffolk Climate Emergency Plan includes an 8-week e-bike trial in Lowestoft for staff working with Leading Lives. They have also commissioned an electric vehicle report to inform development of a Suffolk-wide EV Strategy to progress the EV infrastructure across the county. July 2024 – ESC Environment Impact Strategy produced includes over 100 workstreams as part of the Council's priorities in the strategic plan. Updated Net Zero Plan in the Planning phase, due for delivery 2025.	Workstreams which are likely to have an impact in reducing emissions to air relevant to LAQM have been included as their own measure within this table.
ESC 46	Suffolk Air Quality Profile and production of Suffolk Air Quality Strategy	Other	Other	2020	2023	SCC Public Health & Communities, all Suffolk local authorities including ESC	SCC Public Health	Funded	Unknown	**Completed**	Emission reductions in Suffolk	Production of Air Quality Profile. Undertake Air Quality Summit. Develop SCC Air Quality Strategy and Action Plan. Develop Suffolk Community Engagement Plan. Develop Suffolk Air Quality Network	Suffolk Air Quality Profile published June 2021 aim is to increase understanding of public health impact of poor air quality on health in Suffolk and act as a catalyst for further action. As a result of the report air quality was made a priority by the Suffolk Health and Wellbeing Board. Air Quality Summit January 2022 for all County, District and Borough Councillors to increase air quality knowledge. Work on Suffolk-wide Air Quality Strategy and Action Plan progressed during 2022 with the draft completed and document published May 2023. Undertaken in conjunction with all Suffolk district and borough councils. 2023 - work started on Suffolk Community Engagement Plan. Through 2023 a Suffolk Air Quality Network made up of appropriate leads and stakeholders from across the county was explored with the University of Suffolk in discussion with stakeholders. First meeting Nov 2023, meetings now twice a year since then. 2024 - Air Quality Strategy review. Increased focus on indoor air quality, support for nature friendly farming and an evaluation project for school streets	AQ Profile describes; the impact of poor air quality on the public's health; identifies areas of concern within Suffolk; what can be done to mitigate the harmful impact of poor air quality. The Suffolk Air Quality Summit covered an introduction to Air Quality, the effects of Air Pollution on Health and the current Air Quality situation across Suffolk. Suffolk Air Quality Strategy and Action Plan developed in partnership between Suffolk County Council's Public Health and Communities directorate and the Growth, Highways and Infrastructure directorate, with contributions from district and borough councils, NHS and the University of Suffolk. It can be seen at http://www.suffolk.gov.uk/airquality
ESC 49	Active Travel Woodbridge project	Other	Other	2021	2026	SCC, ESC, Woodbridge TC, Melton PC	Department for Transport funding for the feasibility study	Partially Funded	Unknown	Planning	Emission reductions in Woodbridge and Melton	Submission of feasibility study. Funding obtained from DfT	In March 2022, SCC was one of 19 local authorities to be awarded funding by the Department for Transport (DfT) to develop a feasibility study for setting out how a Mini-Holland scheme could be implemented in Woodbridge and Melton. During 2022 data collection and engagement with the local community was undertaken in order to submit a feasibility study in 2023 to DfT (Active Travel) for funding. Bid successful and £4million funding from Active Travel England secured to deliver extensive walking, cycling and public realm improvements in Woodbridge Town Centre and £1million for the South of Woodbridge. Additional funding bid submitted. First phase of consultation on the project undertaken early 2024, with feedback received on	This was originally proposed as a Mini-Holland scheme - these prioritise cyclists and pedestrians over motorised vehicles. Dft submission was March 2023 for Woodbridge and funding announced Summer 2023 - Woodbridge was successful. Scheme may be expanded and include Melton. 2024 - measure title altered from 'Mini-Holland scheme' to 'Active Travel Woodbridge project' on request of SCC. The project aims to significantly upgrade walking, wheeling and cycling routes to enable more people to undertake more trips by active modes, increasing sustainable travel choices for shorter trips and improving air quality.

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													proposals in the southern section of the project area. A second round of consultation autumn 2024 related to town centre improvements. Phase 1 designs (South Woodbridge) are expected in 2025.	
ESC 50	Active Travel Scheme - Grange Road, Felixstowe	Transport Planning and Infrastructure	Other	2021	2026	SCC	Active Travel England	Funded	£1 million - £10 million	Planning	Emission reductions in Felixstowe	Active Travel Scheme completed	Public Consultation on the scheme undertaken October/November 2023 and again at the end of 2024. Report due Spring 2025 to set out plans. Design phase will then begin with expected delivery 2026. Scheme is within the local area transport plan for Felixstowe as a priority within the next 5 years.	£1.3 million was secured by SCC for an active travel scheme to encouraging cycling and walking through measures such as cycle lanes, shared-use paths and improved crossing points on roads on Grange Road to link between Ferry Lane and High Street in Felixstowe. Originally planned to start work in 2024.
ESC 52	SCC Development of the Local Transport Plan - LTP4	Policy Guidance and Development Control	Other policy	2023	2024	SCC	SCC	Funded	< £10k	**Completed**	Emission reductions in ESC	LTP4 adopted	The new Local Transport Plan (LTP4) is currently under development - 2023. The LTP will be focused on decarbonising transport in Suffolk, and this will have associated benefits for Air Quality, as the two issues are closely related. The LTP will contain a dedicated section on Air Quality. Initial Public Consultation on the key themes March 2024 - air quality included within the Health, Wellbeing and Inclusion theme. LTP 2025-2040 adopted February 2025.	LTP4 covers 2025-2040. Part1 of the plan highlights the Council's long-term ambitions for the transport network. There are 4 main themes and 2 contain relevance to improvement of air quality. Decarbonisation of Transport – strong links to active travel and public transport use. Health, Wellbeing and Social Inclusion – includes specific reference to clean air and improvement of air quality. Part 2 is the Implementation Plan. Individual Area Plans produced for Beccles, Felixstowe, Lowestoft, Saxmundham & Leiston and Woodbridge.
ESC 53	Plug In Suffolk - Installing electric vehicle charging infrastructure within the district.	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2022	2026	SCC	SCC	Funded	£1 million - £10 million	Implementation	Emission reductions in ESC	Adoption of Suffolk EV Charging Infrastructure Strategy. Number of EV charge points installed across Suffolk and in ESC Provision of on-street charge points	Suffolk EV Charging Infrastructure Strategy 2023-2028 adopted. 2023 - 100 charge points installed at 31 locations in Suffolk. Within ESC charge points installed at Beccles, Bungay, Carlton Colville, Framlingham, Grundisburgh, Rendlesham, Reydon, Saxmundham, Southwold and Ufford. 2024 – £7.3 million LEVI funding for on-street charging provision with over 6,500 new public charge points. Public asked to send in location options. Investigating list of options for Highways constraints and connection viability.	SCC has developed 'Plug In Suffolk' - a project to simplify the procedure of charging an electric car and make Suffolk Zero Emission Vehicle ready. Plug In Suffolk Community Grant available - first Phase heavily over-subscribed. Re-allocated to new Local Electric vehicle Infrastructure (LEVI) pilot funded second phase which has £7.3m funding. Will focus on 'on-street' charge point installation. Aim is to eventually cover almost every possible publicly accessible car park in Suffolk so that everyone who has a contactless payment system on them can use the chargers.
ESC 54	East Suffolk Council Healthy Environments Supplementary Planning Document (SPD)	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2024	ESC	ESC	Funded	< £10k	**Completed**	Emission reductions in ESC	Production and adoption of Healthy Environments SPD	Initial consultation on scope and content produced responses used to produce the first draft. Draft Healthy Environments SPD consulted upon Nov 2023-Jan 2024. Document adopted June 2024.	The Healthy Environments SPD provides guidance for the planning and design of new residential development (including mixed-use developments with an element of residential), streets, green infrastructure, schools, workplaces, community facilities, and/or new retail centres. Its focus in on Green Infrastructure, Active Travel, Healthy Homes, Schools & Workplaces, Healthy Centres & Community Facilities. It's ajm is to provide Lifetime Neighbourhoods by bringing all of the essential elements together at development site level to provide high quality, healthy and inclusive neighbourhoods. The guidance will be used in the consideration of applications when assessing the design quality of proposed developments and their consistency with policies.

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ESC 55	East Suffolk Council Local Validation List and guidance for planning applications	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2023	2024	ESC	ESC	Funded	< £10k	**Completed**	Emission reductions in ESC	Production and adoption of Local Validation List and guidance	Consultation held December 2023 to February 2024. List and guidance adopted May 2024.	East Suffolk Council wish to adopt a 'Local Validation List' to sit alongside the 'National Validation List' in accordance with the National Planning Policy Framework (NPPF). All planning and planning related applications submitted to East Suffolk Council would need to comply with the requirements of the Local Validation List. Any applications that are submitted without all the necessary information for the application type/proposal will not be validated. The List will include information on the need for Air Quality Assessments for planning applications.
ESC 56 (was measure STA 7)	A12 bypass at Farnham and Stratford St. Andrew	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2022 / 2023	2027	EDF Energy	EDF Energy	Funded	£1 million - £10 million	Implementation	Reduction in concentration to below the objective	Reduction in NO_2 concentrations in AQMA. Reduction in traffic flows within AQMA	A bid for Government funding (DfT) by Suffolk County Council for a 4 village bypass (Farnham, Stratford St. Andrew, Little Glemham and Marlesford) was not successful. DCO application for Sizewell C submitted with an integrated transport strategy. Two Village Bypass of Stratford St Andrew and Farnham (covering the revoked AQMA) is included in the proposals and should be available for use by peak construction. Consent granted 20 July 2022 by the Secretary of State. DCO subject to Judicial Review March 2023 regarding water supply among other matters - dismissed. Initial enabling works for bypass started 2024 with bypass expected to be open end 2026/ beginning 2027.	Sizewell C DCO Integrated Transport Strategy includes up to 1,000 HGV on busiest day at peak, 650 HGV average day at peak. Early Years construction traffic will pass through revoked AQMA at Stratford St Andrew. Estimated construction period for bypass is 18 months - 2 years. Initial enabling works for bypass started 2024 with bypass expected to be open end 2026/beginning 2027. Air Quality Assessments for all scenarios (including with EA1N and EA2 windfarm construction traffic) do not predict exceedance of the annual mean NO_2 objective during the Early Years phase of the development
ESC 57 (linked to previous measure STA 8)	Mitigation of construction impacts on air quality from Nationally Significant Infrastructure Projects (NSIPs)	Policy Guidance and Development Control	Low Emissions Strategy	2025	2036	ESC, EDF Energy & Scottish Power Renewables	ESC, EDF Energy & Scottish Power Renewables	Funded	Unknown	Implementation	No significant increase in concentrations from road traffic Mitigation and minimisation of air quality emissions and impacts from NSIPs construction	Percentage of low emission vehicles in fleet. Provision of agreed associated developments for Sizewell C (SZC) No significant increase in NO2 concentrations at diffusion tube sites Submission of monthly air quality monitoring reports for SZC Compliance with the relevant submitted Management Plans	Development Consent Order (DCO) granted for EA1N & EA 2 Offshore Windfarms in March 2022 and for Sizewell C (SZC) in July 2022. Both projects commenced 2024. Work undertaken by ESC and applicants during the DCO process to provide mitigation for air quality impacts during construction. EDF Energy committed to 92% of construction fleet to be EURO VI vehicles for SZC. EA1N &EA2 applicant has committed to 70% of HGVs complying with EURO VI standards where the construction periods of this project, the other East Anglia project and the SZC project overlap and the two villages bypass is not in place. EDF Energy for SZC has committed to associated developments including Two Villages Bypass of Farnham and Stratford St. Andrew, 2 x off site park and ride sites at Wickham Market and Darsham, Sizewell Link Road, Freight Management Facility at Nacton, accommodation campus, new roundabout on A12 at Yoxford and other Highway Improvements. Management/Mitigation Plans to be produced - Construction Workforce Travel Plan, Construction Traffic Management Plan, Dust Management Plan, Code of Construction Practice. EA1N & EA2 consent includes requirement to submit Construction Management Plan, Travel Plan, Code of Constriction Practice and Air Quality Management Plan. **2024** - SZC reporting shows to date almost 100% EURO VI HGVs for construction with hydrogen buses to transport workers. EA1N and EA2 will begin reporting shortly. Initial archaeological and ground clearing work has	DCO application for Sizewell C submitted with an integrated transport strategy which includes up to 1,000 HGV on busiest day at peak, 650 HGV average day at peak, a Two Village Bypass of Stratford St Andrew and Farnham agreed and should be available for use by peak construction which will bypass the now revoked AQMA. Current estimate is bypass open end of 2026/ beginning 2027. Modelling of the potential impact on the AQMA and across the district has been conducted for both SZC and EA1N & EA2 including cumulative impacts and has been scrutinised, discussed and accepted by ESC as part of the DCO process. ESC's aim is to inform mitigation measures to try and prevent or minimise any increase in air pollutant concentrations within the district. Management Plans are submitted and assessed by ESC for each location of works as and when required for the construction program.

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													started on all SZC associated developments. NO2 concentrations at monitoring sites along the relevant road network have either fallen or remained static between 2023 and 2024. Management Plans have been submitted and agreed for relevant packages of work by the Local Planning Authority. Monthly air quality monitoring reports are being submitted by SZC and scrutinised. ESC received one complaint regarding air quality concerns due to emissions from congestion at the area of construction work for the Yoxford roundabout site. The complaint was investigated and no action was deemed necessary due to the short duration (3-days) of the works.	
ESC 58	Active Travel Schools Toolkit	Promoting Travel Alternatives	Other	2024	2024	SCC	SCC	Funded	Unknown	**Completed**	Emission reductions in ESC	Toolkit produced and available for schools	An Active Travel Primary school's toolkit was developed in 2024 to support schools with identifying their travel behaviours and set out active travel ideas and initiatives that they can be supported to implement. Whilst it is written for primary schools, it has initiatives which secondary schools can also adopt. Schools can access it through the SCC website.	
ESC 59	Discounted annual license fee for electric and hybrid taxis	Promoting Low Emission Transport	Taxi emission incentives	2024	2024	ESC	ESC	Funded	£10K-£50K	**Completed**	Emission reductions in ESC	Discount in place Number of electric or hybrid taxis	In 2022 a 25% discount was put in place with East Suffolk for annual taxi licence fees is you have an electric or hybrid vehicle. In 2024 there were 10 electric and 32 hybrid taxis registered within ESC.	
ESC 60	ESC Leisure Centre Decarbonisation and Retrofit programme	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2025	2027	ESC, Leisure Centre Operators	ESC, Public Sector Decarbonisation scheme grant (bid outcome TBC)	Not funded – bid outcome pending	£1 million-£10 million	Planning	Emission reductions from Leisure centres in ESC	Retrofits undertaken	All ESC Leisure centres (with exception of Felixstowe) are bidding to go 100% renewable for energy usage. All currently use gas. Will use solar PV, air source heat pumps and grid electricity to replace gas.	This measure is pending funding in 2025.
ESC 61	Saxmundham, Woodbridge and Melton train station improvements	Promoting Travel Alternatives	Other	2025	2026	SCC	SCC	Funded	Unknown	Planning	Emission reductions in ESC	Improvements completed	2024/25 – planning phase - improvements will provide increased cycle parking, increased accessibility and ease of use.	Aim is to increase train patronage and make it easier to cycle to these stations. Improvements also being made to look at lighting and accessibility for wheelchair users, passengers with mobility issues/ pushchairs / carrying heavy luggage – step free where possible.
ESC 62	Suffolk Solar Together	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2025	2027	Suffolk Climate Change Partnership (all Suffolk local authorities including ESC and SCC)	Suffolk Climate Change Partnership and Private House owners	Funded	Unknown	Implementation	Emission reductions in ESC	Number of solar PV installations	Decision phase closed 2024 and installation phase underway. 339 ESC residents signed up for the survey and 307 have been confirmed following the survey. 182 installations (2,149 panels providing 924 KW) completed within ESC by September 2024.	2024 scheme is for householders to get together (assisted by Suffolk Climate Change Partnership) and buy solar PV. All of the work is done for the householder – they just need to pay the costs. Reduced rate as group purchase. Historically 000's of households in Suffolk have purchased Solar PV through this system.
ESC 63	Warm Homes Local Delivery Suffolk	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2025	2028	SCC (lead partner) with ESC and other Suffolk authorities	DESNZ Department for Energy Security and Net Zero (DESNZ)	Funded	£1 million - £10 million	Planning	Emission reductions in ESC	Number of properties with alterations undertaken	£4.62 million funding granted. Identification of qualifying households has started – includes both home-owners and private tenants.	Scheme aim is to improve the least energy efficient properties in the county. This is a second phase of funding following the Warmer Homes Suffolk scheme 2022-2025. The new scheme pre-qualifies households within the most deprived areas of ESC regardless of income. Provides grants to help insulate and make a property more energy efficient. Alterations could include loft insulation, wall insulation, installing energy efficient air source heat pumps or

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														solar PV, providing advice and support on how to reduce fuel bills.
ESC 64	Warm Homes Social Delivery Wave 3 project	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2025	2028	ESC	ESC and Department for Energy Security and Net Zero (DESNZ)	Grant Funding approved	>£10 million	Planning	Emission reductions in ESC	Number of properties with alterations undertaken	£5.9 million grant funding obtained from DESNZ which has been match funded by ESC = £11.8 million. Funding to carry out energy efficiency measures to 624 properties over 3-year period. Currently waiting to receive Grant Funding Agreement from DESNZ. Started procurement of Retrofit assessors, designer and co-ordinators and a principal contractor to carry out the works.	Retrofitting of ESC Housing Stock to improve energy efficiency. Measures include; heating upgrades;, doors and windows; insulation and; solar panels.
ESC 65	Clean Air Day 2025 promotion and events	Public Information	Other	2025	2025	ESC	ESC	Funded	<£10k	Implementation	Emission reductions in ESC	Clean Air Day events delivered	Plan to deliver 3 everts during Clean Air week including one on Clean Air Day. 1) Webinar for NHS health professionals to discuss air quality and health links and how to get information across to patients 2) Council Officer manned stand in Lowestoft Library with air pollution information. 3) Manned stand in Ipswich Hospital with air pollution information for staff and public engagement.	NHS staff webinar and manned stand in hospital are in partnership with East Suffolk and North Essex nhs Foundation Trust, SCC Public Health &Communities, Colchester Borough Council and Ipswich Borough Council).

2.3 $PM_{2.5}$ – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[1], local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$)). There is clear evidence that $PM_{2.5}$ (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The Public Health Outcomes Framework (PHOF) indicator DO1 – Fraction of mortality attributable to particulate ($PM_{2.5}$) air pollution has been updated with data for 2023 Public Health Outcomes Framework D01 Data. It gives a value of 5.1% for the East Suffolk area which is slightly lower than for the whole of England at 5.2% (there is no data available for Suffolk).

In 2024 the Automatic Urban and Rural (AURN) site located at Sibton was upgraded to include annual mean monitoring for $PM_{2.5}$. Table A.8 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentration for 2024, which are summarised as follows;

Sibton annual mean $PM_{2.5}$ concentration 2024 – 7 µg/m^3

The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023) require that in England by the end of 2040 an annual average of 10 µg/m^3 for $PM_{2.5}$ is not exceeded at any monitoring station. The results for Sibton are complaint with these Regulations.

In 2024 ESC ran 2 OPCube air quality sensors for gas and particulates which measure NO_2, PM_{10} and $PM_{2.5}$. These were located at sites in Lowestoft and Worlingham in order to provide a comparison with data provided by the Defra Background Maps. In 2023 ESC did not have results from reference method or equivalent monitoring for $PM_{2.5}$ and so used the current Defra background mapping resource to provide maximum background annual mean $PM_{2.5}$ concentrations on a 1km grid square basis within the district. Two of the highest predicting grid squares were within the Love Road/Yeovil Road area of Lowestoft and at the site of the Ellough Industrial Estate. Our monitoring locations were therefore

[1] Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

sited at Love Road in Lowestoft and at the closest residential receptor locations downwind of the Ellough Industrial Estate - Rectory Road in Worlingham. The monitoring ran for 12 months and the annual mean $PM_{2.5}$ concentration recorded at these locations during that period can be seen below. Further details are included in Section 3.2.2 and Appendix H.

Love Road, Lowestoft period (annual) mean $PM_{2.5}$ concentration 2024 – 9 µg/m^3

Rectory Lane, Worlingham period (annual) mean $PM_{2.5}$ concentration 2024 – 8 µg/m^3

The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023) require that in England by the end of 2040 an annual average of 10 µg/m^3 for $PM_{2.5}$ is not exceeded at any monitoring station. The results for both sites are complaint with these Regulations. Both measurements were lower than the Defra Background Map predictions for the grid squares they are located in/downwind of - for Lowestoft the prediction was an annual mean of 10.6 µg/m^3 and for Worlingham the prediction was an annual mean of 11 µg/m^3.

The current Defra background mapping resource has also been used to provide maximum background annual mean $PM_{2.5}$ concentrations on a 1km grid square basis within ESC for 2024. The calculations appear to have been updated since last used in the 2024 ASR as predictions for all grid squares are lower when we compared the same year of 2023. Concentrations predicted for 2024 in the current Background Maps range from 5.2 µg/m^3 to 9.98 µg/m^3 across the district with the majority of sites showing concentrations between 5.5 µg/m^3 and 6.0 µg/m^3 and the average being 5.9 µg/m^3.

The highest predicted concentration within the East Suffolk district is now 9.98 µg/m^3 for one grid square located on the Ellough side of Beccles. One of our OPCubes has been moved to a site within this grid square to undertake monitoring in 2025.

East Suffolk Council is taking the following measures to address $PM_{2.5}$:

- The Suffolk Air Quality Group, of which ESC is a member, has engaged with Suffolk County Council (SCC) Public Health in order to move forward together with regard to tackling $PM_{2.5}$. SCC has produced the Healthy Suffolk Joint Strategic Needs Assessment (JSNA) which aims to accurately assess the health needs of the local population and underpins the Health and Wellbeing Strategy.
  During the latter part of 2019 and in 2020, the Council, together with all the other Local Authorities across Suffolk worked with SCC Transport and Public Health colleagues to prepare an ‘Air Quality Profile’ report for Suffolk (measure ESC 46 in table 2.2). The report maps, at a district and borough level, local air pollution levels

and explores evidence-based interventions that can be undertaken by local authorities, businesses, communities and individuals to improve air quality. The report was published in June 2021 and now forms part of the JSNA documents.
As a result of the report, air quality was made a priority by the Suffolk Health and Wellbeing board as part of their duty to "encourage integrated working" between health, care, police and other public services in order to improve wellbeing outcomes for Suffolk. The recommendations from the Suffolk Profile have also informed both the development of a Suffolk-wide Air Quality Strategy published in May 2023 and the start of the Suffolk Community Engagement Plan with members of the public across Suffolk.
The Suffolk Air Quality Strategy sets out the range of actions identified as being important to the improvement of air quality, along with who is the lead authority for the work, timescales for implementation, and what measurements or outcomes will be achieved. The Strategy can be viewed at air-quality-strategy-and-action-plan (suffolk.gov.uk). The Strategy underwent a review in 2024 and now has an increased focus on indoor air quality, support for nature friendly farming and an evaluation project for school streets
The air quality engagement plan sets out the action SCC, working with borough and district partners, will take to raise awareness of the health impacts of air quality in Suffolk. The aim is to increase awareness to enable individuals to make choices that protect both their health and the health of others from the harmful effects of pollution.
During 2023 SCC Public Health, in conjunction with the University of Suffolk and other stakeholders including ESC, explored creating a Suffolk Air Quality Network (SAQN) made up of appropriate leads and stakeholders from across the county. The first meeting was held in November 2023 to shape the SAQN and the Network was officially launched in May 2024 with biannual meetings going forward.
We will continue to consult with SCC Public Health colleagues and be advised by them, and national guidance, on any relevant measures that will reduce exposure to $PM_{2.5}$.

- ESC, working in partnership with SCC and other potential partners, is committed to promoting alternative forms of transport and modes of travel such as cycling, walking, and use of public transport with the aim of reducing the reliance on private cars. SCC also has a number of its own measures. The promotion of active travel in the form of cycling and walking within the District has wider benefits and has strong

links to the Public Health Outcomes Framework (PHOF) in terms of improving the health and wellbeing of the population, as well as improving the local air quality through reduced congestion and vehicle emissions, key measures are listed below;

- ❖ The ESC Lowestoft Town Centre Masterplan (ESC 33) aims to improve cycling and walking across the Town;
- ❖ Promotion of travel alternatives for ESC staff (ESC 13) will also impact positively in reducing emissions by promoting a change in travel culture and providing advice, support and infrastructure to encourage the use of other means of transport rather than the car;
- ❖ SCC together with ESC and Woodbridge Town Council has been successful in a bid to Active Travel England for £5million to deliver extensive walking, cycling and public realm improvements in Woodbridge Town Centre and the South of Woodbridge (ESC 49);
- ❖ SCC has also been successful in a bid to Active Travel England for £1.3million to encourage cycling and walking through measures such as cycle lanes, shared-use paths and improved crossing points on roads on Grange Road to link between Ferry Lane and High Street in Felixstowe (ESC 50);
- ❖ Promotion of cycling within Suffolk via enhanced webpages and bike-ability courses in schools (ESC 30) and;
- ❖ An Active Travel Schools Toolkit has been produced by SCC and promoted to all schools in Suffolk with the hope that it will encourage more children and parents to use active travel rather than the car for school runs (ESC 58).
- ❖ Train station improvements at Saxmundham, Woodbridge and Melton are aiming to increase cycling rack provision and make the stations more accessible (ESC 61).

- There are a number of measures related to increasing the use of electric vehicles (EVs) across both ESC district and Suffolk as a whole. Increased use of EVs will lead to exhaust emission reductions across the district;
  - ❖ Installation of EV charging units in the public domain – SCC has been successful in a bid for LEVI grant funding receiving £7.3million for an on-street charging project across Suffolk that will hopefully see over 6,500 public charge points installed (ESC 53);
  - ❖ ESC discount of 25% on annual taxi licences for hybrid or electric vehicles (ESC 59);

- ❖ Increased EV use within private industry - the Port of Felixstowe is increasing its electric vehicle fleets (ESC 2 and ESC 42);

- Reductions in $PM_{2.5}$ emissions are targeted by the following ESC measures related to Planning:
  - ❖ Assessments of planning applications to consider their impact on air quality (ESC7);
  - ❖ Production and adoption of a new Healthy Environments SPD (ESC 54) and;
  - ❖ Production and adoption of a Local Validation List and associated guidance for planning applications (ESC 55).
  - ❖ Work by Council officers on the large Nationally Significant Infrastructure Projects (NSIPS) within the district to reduce the emission impacts from construction is significant and on-going – both for those already consented (Sizewell C, EA1N, EA2 & EA 3 offshore windfarms), at submission stage (National Grid Electricity Transmission Sea Link) and in the pre-application phase (National Grid Ventures LionLink) (ESC 57)
- Emission reduction measures being undertaken by the Port of Felixstowe will aid to reduce emissions of $PM_{2.5}$ both close to the Port boundary in Felixstowe and along the transport routes. Efficient power technologies fitted to Rubber-Tyred Gantry cranes (RTGs) – ECO-RTGs and electric RTGs replacement program in place (ESC 1); abatement technologies fitted to Internal Movement Vehicles and replacement program in place (ESC 2); increased use of rail to move freight (ESC 3); and production of the Port of Felixstowe Air Quality Strategy (ESC 36).
- Provision of information to the public and commerce on reducing emissions from solid fuel and wood burning (ESC11);
- Third vehicular crossing of Lake Lothing in Lowestoft which opened in 2024. This will significantly reduce congestion and therefore PM emissions within Lowestoft (ESC 21);
- School Travel - delivering air quality information/education to primary schools within the district (ESC 29);
- Delivery of an updated Local Transport Plan by SCC in 2024 (ESC 52) focuses on decarbonisation of the transport network and has a stand-alone section on air quality and aims for improvement;

- Provision of the A12 Stratford St. Andrew bypass will smooth the traffic flow in this area thereby reducing $PM_{2.5}$ emissions (measure ESC 56).
- ESC leisure centre decarbonisation project (ESC 60) together with the Warmer Homes Suffolk (ESC 63) and Warm Homes Social Delivery project (ESC 64) is aiming to improve energy efficiency for buildings within the district. The Warmer Homes Suffolk project will be providing grants to help insulate and make the least energy efficient properties within the district more efficient. Alterations could include loft insulation, wall insulation, installing energy efficient air source heat pumps or solar PV, providing advice and support on how to reduce fuel bills. The latest round of funding is looking to provide alternatives to gas heating. The Warmer Homes Suffolk project will be undertaking the same alterations to our own housing stock. Outcomes from these projects should help to reduce emissions within the district from domestic premises.

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

This section sets out the monitoring undertaken within 2024 by East Suffolk Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

East Suffolk Council undertook automatic (continuous) monitoring for NO_x at one site in Woodbridge (within the revoked AQMA) during 2024. Defra's Automatic Urban and Rural Network (AURN) undertook automatic (continuous) monitoring for particulate matter (PM10 and PM2.5) at one site in Sibton during 2024.

Table A.1 in Appendix A shows the details of the automatic monitoring sites. The East Suffolk District Council - Air Quality monitoring service (airqualityengland.co.uk) page presents automatic monitoring results for both sites within East Suffolk Council, with automatic monitoring results also available through the UK-Air website.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

The automatic monitoring site for NOx in Woodbridge was removed on 8th January 2025 following a trend of reducing NO_2 concentrations at this location. Diffusion tube monitoring for NO_2 will remain in place at the site of the continuous analyser (within the revoked AQMA) for the forseeable future.

The AURN site for particulates has historically only monitored for ozone and hence has not been mentioned in any previous reports. In 2024 the site was upgraded to include monitoring for particulates - both PM_{10} and $PM_{2.5}$.

3.1.2 Non-Automatic Monitoring Sites

East Suffolk Council undertook non- automatic (i.e. passive) monitoring of NO_2 at 94 sites during 2024. Table A.2 in Appendix A presents the details of the non-automatic sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

The diffusion tube network is updated each year as required in response to new potential sources of pollution, new receptors being introduced, proposed land development, or concerns raised by local residents. New sites are located with reference to the LAQM technical guidance. ESC added 19 new sites to the NO_2 monitoring network in 2024 across the district as follows:

- 11 new sites added outside primary schools across the district (see measure ESC 29 in Table 2.2);
- Lowestoft – 2 sites added in Durban Road and Levington Court (Bascule Bridge) to confirm any changes due to the opening of the Gull Wing Bridge;
- Beccles – 1 site added at Ingate following resident concerns surrounding idling traffic at the railway crossing;
- Felixstowe – 1 site added at Ferry Lane at ground floor height to run in tandem with a second site at the first floor height with a view to removing the first floor site in 2025 for health and safety reasons;
- Walton – 1 site replaced in High Street Walton due to the original site attachment location no longer being present;
- Woodbridge – 2 new sites following resident concerns surrounding traffic volumes;
- Martlesham – 1 new site added to monitor any changes to concentrations due to traffic using the A12 as the road layout has altered with new traffic lights being installed at this locality.

The following 17 monitoring sites were removed at the end of 2023, to ensure that resources were allocated appropriately with reference to LAQM guidelines:

- LOW 17, 18, 19, & 20, OBR 6, BEC 8, FLX 44, TRM 13, MRT 9, LEI 5 and WKM 3 – these sites were all in place for a 1-year monitoring survey around schools.

- LOW 21 and HLW 2 – these sites were all in place following concerns raised by the public. However, the 12-month monitoring survey confirmed annual mean concentrations at these sites were low (10.3µg/m^3 and 8.3µg/m^3 respectively);
- LOW 8 - this site was replaced by LOW 25 following privately owned vegetation which had grown around the site making it inaccessible.
- TRM 5 – this site was one of 3 in very close proximity all with very similar results. This site was the most difficult to access and so was chosen for removal as a site with a low annual mean concentration;
- TRM 12 – this site was replaced by TRM 15 following removal of the drainpipe to which the site was affixed at TRM 12.
- STA 2 – this site was on Suffolk County Council land and the vegetation had become overgrown leading the site to be inaccessible. Results for nearby sites were higher – this site was removed, and the others kept in place.

The diffusion tube monitoring network will undergo a review to determine 2025 monitoring needs and locations which will be reported in the next ASR.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2024 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Table A.5 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year.

During 2024 the continuous NOx analyser, located at a relevant receptor within the revoked AQMA at Woodbridge, recorded a good data capture rate of 91.4%. The monitor measured an annual mean NO_2 concentration of 20µg/m^3. This is within the annual mean air quality objective of 40µg/m^3 for the eleventh year running with a trend of continued reduction over this time period. The 1-hour objective is set at 200µg/m^3 not to be exceeded more than 18 times per year. The automatic analyser in Woodbridge did not record any 1-hour mean concentrations in excess of at 200µg/m^3, thus achieving compliance with the 1-hour mean NO_2 air quality objective.

The results from diffusion tube monitoring show that there are no sites across the Council with annual mean concentrations at or above the objective level of 40µg/m^3 in 2024. There are no instances of the annual mean exceeding 60µg/m^3 in 2024 and therefore the risk of exceeding the 1-hour objective at any locations is very low. Additionally, there were no diffusion tube locations which recorded a concentration outside of 10% of the air quality objective (i.e. any site above 36 µg/m^3 and therefore close to, but not above, the objective level of 40µg/m^3). The maximum annual mean concentration recorded was 25.4 µg/m^3, at triplicate site LOW 6, located next to the Bascule Bridge crossing of Lake Lothing in Lowestoft Harbour.

Trend graphs showing annual mean NO_2 concentrations at the automatic analyser and all diffusion tube sites within the district with 5 years or more of data are presented in Appendix A: Monitoring Results, Figure A.1.

Monitoring locations across the Council have overall seen decreasing annual mean NO_2 concentrations during the last 5 years. Concentrations in 2020 had reduced at all monitoring locations when compared with 2019 results, which is likely due to the impact of Covid-19 and associated travel restrictions in 2020. During 2021 Covid-19 traffic restrictions were fewer, and in 2022 restrictions had ceased. NO_2 concentrations at the majority of sites responded to the lessening of the restrictions on traffic flows by showing a slight increase in 2021 and at some sites also in 2022. The overall trend at all sites in East Suffolk is one of reduction in annual mean NO_2 concentrations between 2020 and 2024. In last year's ASR concentrations at BEC 3 and BEC 5a,b,c had not yet decreased to below those recorded during the Covid-19 pandemic (during 2020) – in 2024 concentrations at both sites have now reduced below 2020 levels.

The majority of monitoring locations in ESC showed a decrease in annual mean NO_2 concentrations between 2023 and 2024. Concentrations at 4 sites (LOW 3, BEC 1, TRM 8 and LEI 2) remained static between 2023 and 2024. Concentrations at 3 sites (LOW 13, FLX 20 and TRM 4) showed a slight increase of between 0.9 and 2 µg/m^3.

- The NO_2 annual mean at LOW 13 (Denmark Road in Lowestoft) increased from 14µg/m^3 in 2023 to 16 µg/m^3 in 2024 - still considerably below the air quality objective. Denmark Road was closed for several months during 2023 so it is likely that the concentration recorded was lower than would be expected. In 2024 with business as usual the concentration recorded was higher. We will continue to monitor at this location to observe the trend over time.
- The NO_2 annual mean at FLX 20 (Glemsford Close in Felixstowe) increased from 19.7 µg/m^3 in 2023 to 20.6 µg/m^3 in 2024 - still considerably below the air quality objective. We are not aware of any reason why this site would not follow the same trend as others in Felixstowe. We will continue to monitor at this location to observe the trend over time.
- The NO_2 annual mean at TRM 4 (High Road in Trimley St. Martin) increased from 17.2 µg/m^3 in 2023 to 18.4 µg/m^3 in 2024 - still considerably below the air quality objective. During September and October 2024 nearby Candlet Road was closed for roadworks. Candlet Road is one of the main routes into Felixstowe and a proportion of the traffic would have re-routed through the Trimleys and past this site. This may account for the slight increase seen. We will continue to monitor at this location to observe the trend over time.

ESC now has 2 OPCube air quality sensors for gas and particulates which measure NO_2, PM_{10} and $PM_{2.5}$. In 2024 the Cubes were deployed at one site in Love Road, Lowestoft and one in Rectory Lane, Worlingham. These sites were chosen as they are within, or at the nearest receptors, of two of the highest predicting grid squares within the ESC district for $PM_{2.5}$ based on Defra's national background maps (provided for each 1km x 1km grid square across the UK). Information regarding the background maps, and the maps themselves, can be accessed at Background Mapping data for local authorities - DEFRA UK Air - GOV.UK.

Monitoring at both locations collected data from 1st January to 31st December 2024.

The OPCube is not MCERTS certified for indicative monitoring. Advice was sought from the LAQM Helpdesk who advised that at present, low-cost sensors are not suitable for measuring annual mean or exceedances as they are still not reference method equivalent

instruments. Indicative monitoring data should therefore not be included in any annual reporting tables. Siting information and a data summary is instead presented in Appendix H. Data collection and management was undertaken by Ricardo which included co-location with a reference analyser at the start of the monitoring and after a 6-month period to increase accuracy of data collected.

The NO_2 monitoring gave the following results;

Love Road, Lowestoft - a period (annual) mean of 17 µg/m^3 with no days where the mean was >200 µg/m^3.

Rectory Lane, Worlingham - a period (annual) mean of 14 µg/m^3 with no days where the mean was >200 µg/m^3.

The results at both locations are within the NO_2 air quality objectives of 40 µg/m^3 for an annual (period) mean and 200 µg/m^3 as a 1-hour mean not to be exceeded more than 18 times a year.

3.2.2 Particulate Matter (PM_{10})

In 2024 the Automatic Urban and Rural (AURN) site located at Sibton was upgraded to include annual mean monitoring for $PM_{2.5}$.

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM_{10} annual mean concentration for 2024 with the air quality objective of 40µg/m^3.

Table A.7 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for 2024 with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

The monitoring site at **Sibton** measured an annual mean PM_{10} concentration in 2024 of 10µg/m^3 with no days where the mean was >50 µg/m^3 which are both within the air quality objectives. As time goes on and we obtain additional monitoring results will be able to see any trends shown at this site.

ESC now has 2 OPCube air quality sensors for gas and particulates which measure NO_2, PM_{10} and $PM_{2.5}$. In 2024 the Cubes were deployed at one site in Love Road, Lowestoft and one in Rectory Lane, Worlingham. These sites were chosen as they are within, or at the nearest receptors, of two of the highest predicting grid squares within the ESC district for $PM_{2.5}$ based on Defra's national background maps (provided for each 1km x 1km grid square across the UK). Information regarding the background maps, and the maps

themselves, can be accessed at Background Mapping data for local authorities - DEFRA UK Air - GOV.UK.

Monitoring at both locations collected data from 1st January to 31st December 2024.

The OPCube is not MCERTS certified for indicative monitoring of particulates. Advice was sought from the LAQM Helpdesk who advised that at present, low-cost sensors are not suitable for measuring annual mean or exceedances as they are still not reference method equivalent instruments. Indicative monitoring data should therefore not be included in any annual reporting tables. Siting information and a data summary is instead presented in Appendix H. Data collection and management was undertaken by Ricardo which included co-location with a reference analyser at the start of the monitoring and after a 6-month period to increase accuracy of data collected.

The PM_{10} monitoring gave the following results, which are all within the air quality objectives of 40 µg/m^3 for an annual (period) mean and 50 µg/m^3 as a 24-hour mean not to be exceeded more than 35 times a year;

Love Road, Lowestoft - a period (annual) mean of 15 µg/m^3 with no days where the mean was >50 µg/m^3.

Rectory Lane, Worlingham - a period (annual) mean of 13 µg/m^3 with no days where the mean was >50 µg/m^3.

3.2.3 Particulate Matter ($PM_{2.5}$)

In 2024 the Automatic Urban and Rural (AURN) site located at Sibton was upgraded to include annual mean monitoring for $PM_{2.5}$.

Table A.8 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentration for 2024.

Sibton annual mean $PM_{2.5}$ concentration 2024 – 7 µg/m^3

The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023) require that in England by the end of 2040 an annual average of 10 µg/m^3 for $PM_{2.5}$ is not exceeded at any monitoring station. The results for Sibton are complaint with these Regulations. As time goes on and we obtain additional monitoring results will be able to see any trends shown at this site.

ESC now has 2 OPCube air quality sensors for gas and particulates which measure NO_2, PM_{10} and $PM_{2.5}$. In 2024 the Cubes were deployed at one site in Love Road, Lowestoft and one in Rectory Lane, Worlingham. These sites were chosen as they are within, or at the nearest receptors, of two of the highest predicting grid squares within the ESC district for $PM_{2.5}$ based on Defra's national background maps (provided for each 1km x 1km grid square across the UK). Information regarding the background maps, and the maps themselves, can be accessed at Background Mapping data for local authorities - DEFRA UK Air - GOV.UK.

Monitoring at both locations collected data from 1st January to 31st December 2024.

The OPCube is not MCERTS certified for indicative monitoring of particulates. Advice was sought from the LAQM Helpdesk who advised that at present, low cost sensors are not suitable for measuring annual mean or exceedances as they are still not reference method equivalent instruments. Indicative monitoring data should therefore not be included in any annual reporting tables. Siting information and a data summary is instead presented in Appendix E. Data collection and management was undertaken by Ricardo which included co-location with a reference analyser at the start of the monitoring and after a 6-month period to increase accuracy of data collected.

The $PM_{2.5}$ monitoring gave the following results;

Love Road, Lowestoft - a period (annual) mean of 9 µg/m^3.

Rectory Lane, Worlingham - a period (annual) mean of 8 µg/m^3.

The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023) require that in England by the end of 2040 an annual average of 10 µg/m^3 for $PM_{2.5}$ is not exceeded at any monitoring station. The results for both locations are complaint with these Regulations.

3.2.4 Sulphur Dioxide (SO_2)

ESC does not undertake monitoring for SO_2.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
WBG	Woodbridge Junction	Roadside	627596	249261	NO_2	No	N/A	Chemiluminescent	0	1.2	2.6
SIB	Sibton	Rural	636276	271902	PM_{10} $PM_{2.5}$	No	N/A	FIDAS optical light scattering	N/A	N/A	4

Notes:

(1) N/A if not applicable

(2) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

Table A.2 – Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
LOW 1	Belvedere Road (LP F2850)	Roadside	654606	292625	NO2	No	N/A	2.5	No	1.9
LOW 2	Kerbside lamppost Fir Lane (LP 1742)	Kerbside	653209	293785	NO2	No	6.0	0.5	No	1.8
LOW 3	Kerbside lamppost Mill Road (LP F185)	Roadside	654477	292395	NO2	No	6.8	1.2	No	1.9
LOW 5	St Margarets Church	Urban Background	654065	294200	NO2	No	N/A	N/A	No	1.7
LOW 6a,b,c	Pier Terrace	Roadside	654690	292625	NO2	No	0	2.5	No	1.8
LOW 7	Belvedere Rd / London Rd South	Roadside	654671	292601	NO2	No	7.0	2.5	No	1.7
LOW 8	London Rd South	Roadside	654660	292571	NO2	No	0	5.7	No	1.7
LOW 9	Lampost in Denmark Road near the train station	Roadside	654723	292914	NO2	No	9.4	2.3	No	1.8
LOW 11	Stradbroke Road / Bloodmoor Road	Roadside	652552	290427	NO2	No	0	8.3	No	1.8
LOW 12	Rotterdam Road	Suburban	654200	294039	NO2	No	0	16.8	No	1.9
LOW 13	Lampost at Denmark Road near Rotterdam Road	Kerbside	654049	292963	NO2	No	0.5	0.9	No	1.7

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
LOW 14	Fir Lane	Roadside	653228	293811	NO2	No	0	9.1	No	2.0
LOW 16	Yarmouth Road	Roadside	654050	295124	NO2	No	10.0	3.0	No	1.5
LOW 22	Durban Road	Roadside	653942	292403	NO2	No	17.1	15.7	No	1.8
LOW 23	Red Oak Primary (LP 2881)	Other	653924	292027	NO2	No	28.0	3.0	No	1.8
LOW 24	Dell Primary School (LP 338)	Other	652240	292255	NO2	No	29.0	1.2	No	1.8
LOW 25	Junction of Belvedere Road/ London Road South	Roadside	654661	292595	NO2	No	0	9.7	No	1.7
OBR 1	Saltwater Way/ Bridge Road	Roadside	652046	292503	NO2	No	6.0	3.2	No	1.9
OBR 2	Bridge Road	Roadside	652304	293021	NO2	No	0	4.3	No	2.0
OBR 4	Beccles Road/Cotmer Road	Roadside	651869	292127	NO2	No	0	5.2	No	0.9
OBR 5	Normanston Drive	Roadside	652554	293282	NO2	No	0	6.4	No	1.7
BEC 1	Ingate (by railway crossing)	Roadside	642615	289909	NO2	No	0	1.3	No	1.8
BEC 3	Fredricks Road cycle sign	Roadside	642553	289922	NO2	No	0	1.5	No	1.8
BEC 4	Ingate	Roadside	642564	289922	NO2	No	0	1.3	No	1.7
BEC 5a,b,c	Ingate	Kerbside	642592	289916	NO2	No	0	0.9	No	1.8
BEC 7	London Road	Roadside	644220	290213	NO2	No	0	1.5	No	1.8
BEC 9	Lampost 1576 Ingate	Roadside	642681	289896	NO2	No	4.5	1.3	No	1.8
HLW 3	Edgar Sewter Primary, Halesworth (signpost outside)	Other	638711	277909	NO2	No	16.9	3.4	No	1.8

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
BUN 1	Trinity Street	Roadside	633670	289817	NO2	No	0	1.6	No	2.0
BUN 3	Lower Olland Street	Roadside	633815	289511	NO2	No	0	1.4	No	1.9
BUN 4	St Edmunds Catholic Primary, Bungay	Other	633704	289628	NO2	No	7.4	2.2	No	1.8
ILK 1	Ilkestshall St. Lawrence Primary	Other	638201	282968	NO2	No	5.0	1.8	No	1.8
BLY 1	A12/Chapel Road	Roadside	645183	275218	NO2	No	0	1.3	No	1.8
FLX 12	Hamilton Road	Roadside	630363	234890	NO2	No	0	5.0	No	1.8
FLX 14	Adastral Close	Industrial	628604	232847	NO2	No	0	5.8	No	2.0
FLX 17	Spriteshall Lane, Trimley St Mary	Suburban	628817	236323	NO2	No	0	31.0	No	2.0
FLX 20	Glemsford Close	Suburban	628669	233979	NO2	No	10.0	54.0	No	2.0
FLX 21	Kings Fleet Road	Suburban	629253	234431	NO2	No		1.5	No	2.3
FLX 22	Levington Road	Industrial	629172	233446	NO2	No	0	9.0	No	1.8
FLX 23	Heathgate Piece, Trimley St Mary	Suburban	628542	236592	NO2	No	0	25.0	No	2.0
FLX 24	Brandon Road	Suburban	628358	234634	NO2	No	0	32.0	No	2.5
FLX 26a,b,c	Ferry Lane front of building at height	Roadside	627959	234246	NO2	No	0	13.0	No	3.4
FLX 39	High Rd, Trimley St Mary	Roadside	628760	236071	NO2	No	0	11.0	No	1.6
FLX 45	Ferry Lane – downpipe at front of building	Roadside	627961	234250	NO2	No	0	14.8	No	1.9
FLX 46	Colneis Primary School	Other	630873	235767	NO2	No	30.8	1.2	No	1.6
TRM 3	High Road, Trimley St Martin	Roadside	627618	237092	NO2	No	0	1.8	No	1.9

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
TRM 4	Lampost 421 High Road, Trimley St Martin	Roadside	627613	237080	NO2	No	0	1.6	No	1.9
TRM 8	Lampost 299 High Road, Trimley St Mary	Roadside	628270	236266	NO2	No	1.8	1.4	No	1.9
TRM 10	High Street, Walton	Roadside	629340	235737	NO2	No	0	2.9	No	2.0
TRM 14	Trimley St Mary Primary School - Lamppost 305	Other	628105	236397	NO2	No	16.0	2.2	No	1.8
TRM 15	High Street, Walton	Roadside	629606	235568	NO2	No	0	2.7	No	2.0
KSG 9	Main Road	Roadside	621680	245796	NO2	No	N/A	2.6	No	1.8
KSG 10	Main Road	Roadside	621815	245785	NO2	No	0	2.7	No	1.6
KSG 14	Heath Primary School	Other	621793	245533	NO2	No	25.4	4.3	No	2.0
MEL 5	The Street/Wilford Bridge Road	Roadside	628145	250417	NO2	No	0.5	3.6	No	1.9
MEL 7	The Street	Kerbside	628177	250478	NO2	No	0	0.3	No	1.7
MEL 11	Melton Primary School	Roadside	628172	250371	NO2	No	0	16.1	No	1.8
MRT 1a,b,c	Horseman Court	Suburban	624633	245447	NO2	No	0	21.0	No	1.7
MRT 14	Lancaster Drive	Other	624783	244647	NO2	No	0	23.0	No	1.6
LGM 2	Main Road	Roadside	634051	258315	NO2	No	0	6.3	No	1.7
FAR 1	The Street (Northbound side)	Roadside	636273	260134	NO2	No	0	1.9	No	1.8
FAR 2a,b,c	The Street (Southbound side)	Roadside	636274	260120	NO2	No	0	1.4	No	1.9

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
STA 1a,b,c	Long Row, Main Road	Roadside	635753	260002	NO2	Yes, AQMA No. 3 - Stratford St. Andrew	0	2.0	No	1.6
STA 6	Main Road	Roadside	635794	260042	NO2	No	0	7.0	No	2.0
STA 7	30mph sign, Long Row	Roadside	635736	259984	NO2	No	N/A	1.9	No	1.7
STA 8a,b,c	Long Row, Main Road	Roadside	635743	259992	NO2	Yes, AQMA No. 3 - Stratford St. Andrew	0	2.0	No	1.6
THEB 1	Leiston Road	Kerbside	643797	265815	NO2	No	1.0	0.9	No	2.0
MID 1	Middleton Moor	Roadside	641611	267791	NO2	No	0	2.5	No	2.0
YOX 1	Brook Street	Roadside	639647	268740	NO2	No	0	1.4	No	2.0
YOX 2	High Street/A12 Junction	Roadside	639693	268778	NO2	No	0	3.4	No	1.8
SAX 1	Church Street	Roadside	638683	263014	NO2	No	0	1.0	No	1.8
LEI 2	Lamppost Sizewell Road	Roadside	644557	262464	NO2	No	0.5	1.4	No	2.2
LEI 3	Station Rd	Roadside	644325	262634	NO2	No	0	2.3	No	1.9
LEI 4	SCC Lamp-post Sylvester Road	Roadside	644843	262483	NO2	No	8.4	1.6	No	2.1
TUN 1	Snape Rd	Kerbside	636110	255114	NO2	No	0	0.5	No	1.9
MLS 1	Main Road A12	Roadside	632734	257733	NO2	No	5.0	1.8	No	1.6
WKM 1	Lampost High Street	Roadside	630180	255718	NO2	No	0	1.5	No	1.9
WKM 2	High Street	Kerbside	630164	255904	NO2	No	0	0.6	No	2.0
KNO 1	Coldfair Primary School	Other	643651	260733	NO2	No	30.0	2.4	No	1.3
WBG 1a,b,c	Thoroughfare/Sun Lane junction	Roadside	627596	249261	NO2	No	0	1.3	Yes	2.4

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
WBG 3	Kingston Farm Road	Suburban	626997	248488	NO2	No	N/A	1.0	No	1.9
WBG 5	Corner of Lime Kiln Quay Road and Thoroughfare	Roadside	627604	249243	NO2	No	0	2.5	No	2.3
WBG 8	Thoroughfare	Roadside	627601	249283	NO2	No	1.0	1.6	No	2.4
WBG 10	St John's Street signpost	Roadside	627570	249240	NO2	No	0.5	1.2	No	2.1
WBG 12	Lime Kiln Quay Road	Roadside	627664	249203	NO2	No	0.5	5.0	No	1.8
WBG 13	Traffic lights Thoroughfare	Roadside	627585	249239	NO2	No	2.5	1.8	No	1.9
WBG 18	Thoroughfare	Roadside	627627	249339	NO2	No	0	1.1	No	2.2
WBG 20	Thoroughfare	Roadside	627604	249295	NO2	No	0	2.6	No	1.9
WBG 24	Grove Road (Southbound)	Roadside	626026	249631	NO2	No	0	9.7	No	1.7
WBG 25	Grove Road (Northbound)	Roadside	626038	249389	NO2	No	0	7.8	No	2.0
WBG 27	Seckford Street,	Roadside	626690	249111	NO2	No	0	1.9	No	1.6
WBG 28	Prospect Place, Melton Hill,	Roadside	627732	249600	NO2	No	0	6.9	No	1.2
WBG 29	Woodbridge Primary - SCC lamppost 680	Other	627497	249626	NO2	No	47.7	1.8	No	1.6

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
WBG	627596	249261	Roadside	91.4	91.4	25	25	23	21	20

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

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

☒ **Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2024.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.4 – Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
LOW 1	654606	292625	Roadside	90.6	90.6	22.4	23.8	24.6	21.5	20.0
LOW 2	653209	293785	Kerbside	100.0	100.0	24.2	23.4	25.4	23.6	19.3
LOW 3	654477	292395	Roadside	90.6	90.6	16.0	19.3	18.6	15.1	15.7
LOW 5	654065	294200	Urban Background	83.0	83.0	10.7	11.0	11.1	9.3	9.4
LOW 6a,b,c	654690	292625	Roadside	100.0	100.0	29.3	33.2	32.6	28.0	25.4
LOW 7	654671	292601	Roadside	100.0	100.0	24.8	27.8	29.2	25.3	22.4
LOW 8	654660	292571	Roadside	100.0	41.5	17.6	18.8	19.9	17.3	16.7
LOW 9	654723	292914	Roadside	83.0	83.0	24.6	24.1	26.5	23.6	22.1
LOW 11	652552	290427	Roadside	100.0	100.0	20.9	22.8	21.9	21.0	18.3
LOW 12	654200	294039	Suburban	92.5	92.5	12.2	13.4	14.9	12.4	11.2
LOW 13	654049	292963	Kerbside	92.5	92.5	16.7	17.9	19.9	14.0	16.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
LOW 14	653228	293811	Roadside	90.6	90.6	15.9	15.4	16.2	14.4	12.6
LOW 16	654050	295124	Roadside	100.0	100.0				20.0	19.5
LOW 22	653942	292403	Roadside	100.0	100.0					10.3
LOW 23	653924	292027	Other	92.5	92.5					9.1
LOW 24	652240	292255	Other	100.0	100.0					8.8
LOW 25	654661	292595	Roadside	100.0	43.4					12.6
OBR 1	652046	292503	Roadside	100.0	100.0	21.0	23.0	23.6	21.6	18.7
OBR 2	652304	293021	Roadside	100.0	100.0	18.4	20.1	19.7	18.5	16.1
OBR 4	651869	292127	Roadside	92.5	92.5	18.3	18.8	19.6	17.2	16.1
OBR 5	652554	293282	Roadside	100.0	100.0	15.6	16.1	16.6	15.5	14.2
BEC 1	642615	289909	Roadside	90.6	90.6	18.0	19.1	19.1	17.1	17.3
BEC 3	642553	289922	Roadside	100.0	100.0	25.3	25.7	27.7	26.5	24.3
BEC 4	642564	289922	Roadside	100.0	100.0	16.9	18.7	19.2	16.5	14.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
BEC 5a,b,c	642592	289916	Kerbside	100.0	100.0	22.7	26.1	25.5	23.2	20.4
BEC 7	644220	290213	Roadside	100.0	100.0		14.8	14.7	12.8	12.5
BEC 9	642681	289896	Roadside	83.0	83.0					14.2
HLW 3	638711	277909	Other	83.0	83.0					12.2
BUN 1	633670	289817	Roadside	100.0	100.0	21.2	22.2	22.2	19.6	19.2
BUN 3	633815	289511	Roadside	83.0	83.0				19.1	17.2
BUN 4	633704	289628	Other	100.0	100.0					18.2
ILK 1	638201	282968	Other	83.0	83.0					8.5
BLY 1	645183	275218	Roadside	92.5	92.5	21.1	23.3	23.5	20.4	18.5
FLX 12	630363	234890	Roadside	100.0	100.0	19.8	20.1	19.2	18.2	16.0
FLX 14	628604	232847	Industrial	100.0	100.0	21.9	22.0	20.5	20.5	19.4
FLX 17	628817	236323	Suburban	100.0	100.0	17.3	17.8	17.8	15.2	14.4
FLX 20	628669	233979	Suburban	100.0	100.0	25.1	22.1	20.8	19.7	20.6

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
FLX 21	629253	234431	Suburban	90.6	90.6	17.7	17.3	16.5	15.8	14.2
FLX 22	629172	233446	Industrial	90.6	90.6	18.2	17.3	15.9	17.8	16.0
FLX 23	628542	236592	Suburban	90.6	90.6	20.3	21.9	21.8	19.8	17.2
FLX 24	628358	234634	Suburban	100.0	100.0	21.0	20.7	19.5	18.1	17.7
FLX 26a,b,c	627959	234246	Roadside	100.0	100.0	28.9	30.1	28.3	26.6	24.9
FLX 39	628760	236071	Roadside	100.0	100.0	18.7	18.8	19.4	16.8	16.0
FLX 45	627961	234250	Roadside	100.0	100.0					21.4
FLX 46	630873	235767	Other	100.0	100.0					11.6
TRM 3	627618	237092	Roadside	100.0	100.0	19.1	19.8	18.8	16.8	16.7
TRM 4	627613	237080	Roadside	100.0	100.0	21.4	20.9	20.6	17.2	18.4
TRM 8	628270	236266	Roadside	100.0	100.0	23.2	23.6	23.1	19.3	19.3
TRM 10	629340	235737	Roadside	100.0	100.0	22.2	22.2	21.6	20.5	19.4
TRM 14	628105	236397	Other	83.0	83.0					17.3

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
TRM 15	629606	235568	Roadside	100.0	67.9					19.7
KSG 9	621680	245796	Roadside	100.0	100.0	22.7	22.2	24.0	22.8	22.2
KSG 10	621815	245785	Roadside	83.0	83.0	24.9	26.5	26.2	23.4	22.6
KSG 14	621793	245533	Other	100.0	100.0					10.4
MEL 5	628145	250417	Roadside	100.0	100.0	20.4	19.9	20.2	19.7	17.7
MEL 7	628177	250478	Kerbside	90.6	90.6	17.2	19.2	19.2	17.6	16.0
MEL 11	628172	250371	Roadside	90.6	90.6					10.5
MRT 1a,b,c	624633	245447	Suburban	100.0	100.0	18.5	19.5	19.5	17.4	15.1
MRT 14	624783	244647	Other	83.0	83.0					10.0
LGM 2	634051	258315	Roadside	90.6	90.6	14.7	14.0	14.2	13.5	12.2
FAR 1	636273	260134	Roadside	100.0	100.0	17.0	17.8	17.4	16.1	14.4
FAR 2a,b,c	636274	260120	Roadside	100.0	100.0	19.0	20.3	19.7	17.9	16.5
STA 1a,b,c	635753	260002	Roadside	90.6	90.6	23.8	26.0	25.9	22.6	21.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
STA 6	635794	260042	Roadside	100.0	100.0	15.8	16.8	18.1	15.0	14.0
STA 7	635736	259984	Roadside	90.6	90.6	20.4	22.6	21.2	18.7	16.4
STA 8a,b,c	635743	259992	Roadside	90.6	90.6	27.4	28.3	29.3	26.2	23.7
THEB 1	643797	265815	Kerbside	100.0	100.0	14.8	16.1	15.2	14.4	12.3
MID 1	641611	267791	Roadside	100.0	100.0	8.7	8.4	7.8	7.4	7.0
YOX 1	639647	268740	Roadside	100.0	100.0	13.8	13.6	14.3	13.0	11.9
YOX 2	639693	268778	Roadside	100.0	100.0			9.6	9.3	8.1
SAX 1	638683	263014	Roadside	83.0	83.0	20.7	25.1	22.5	21.8	19.9
LEI 2	644557	262464	Roadside	90.6	90.6	18.6	20.1	19.3	17.9	18.1
LEI 3	644325	262634	Roadside	100.0	100.0	17.8	19.3	18.4	18.1	15.5
LEI 4	644843	262483	Roadside	84.9	84.9			10.0	9.6	10.7
TUN 1	636110	255114	Kerbside	90.6	90.6	13.1	13.5	12.8	11.1	10.5
MLS 1	632734	257733	Roadside	90.6	90.6		19.6	19.1	18.6	12.4

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
WKM 1	630180	255718	Roadside	100.0	100.0		13.7	13.2	12.0	11.0
WKM 2	630164	255904	Kerbside	100.0	100.0		18.6	17.5	16.7	16.8
KNO 1	643651	260733	Other	100.0	100.0					8.3
WBG 1a,b,c	627596	249261	Roadside	100.0	100.0	25.2	24.3	22.9	20.9	19.8
WBG 3	626997	248488	Suburban	100.0	100.0	10.3	9.6	8.9	8.3	7.0
WBG 5	627604	249243	Roadside	100.0	100.0	16.0	15.9	14.8	13.4	12.4
WBG 8	627601	249283	Roadside	100.0	100.0	24.5	23.8	22.2	20.4	19.3
WBG 10	627570	249240	Roadside	100.0	100.0	16.9	16.7	16.4	14.6	14.1
WBG 12	627664	249203	Roadside	90.6	90.6	16.3	14.8	14.4	13.2	12.7
WBG 13	627585	249239	Roadside	100.0	100.0	20.5	20.6	19.3	16.9	16.3
WBG 18	627627	249339	Roadside	100.0	56.6	22.5	21.0	20.9	19.3	17.6
WBG 20	627604	249295	Roadside	90.6	90.6	23.5	22.2	20.9	19.8	19.0
WBG 24	626026	249631	Roadside	100.0	100.0	23.1	21.0	20.2	16.3	15.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
WBG 25	626038	249389	Roadside	100.0	100.0	18.7	18.2	15.9	14.4	13.6
WBG 27	626690	249111	Roadside	100.0	100.0					8.1
WBG 28	627732	249600	Roadside	90.6	90.6					14.2
WBG 29	627497	249626	Other	100.0	100.0					7.2

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☒ **Diffusion tube data has been bias adjusted.**

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

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

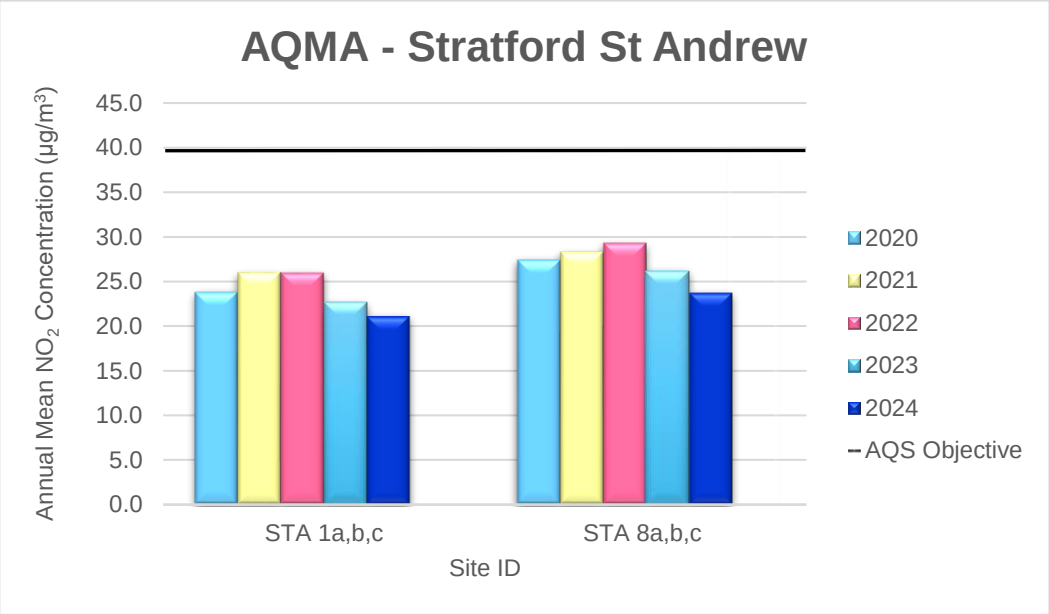
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

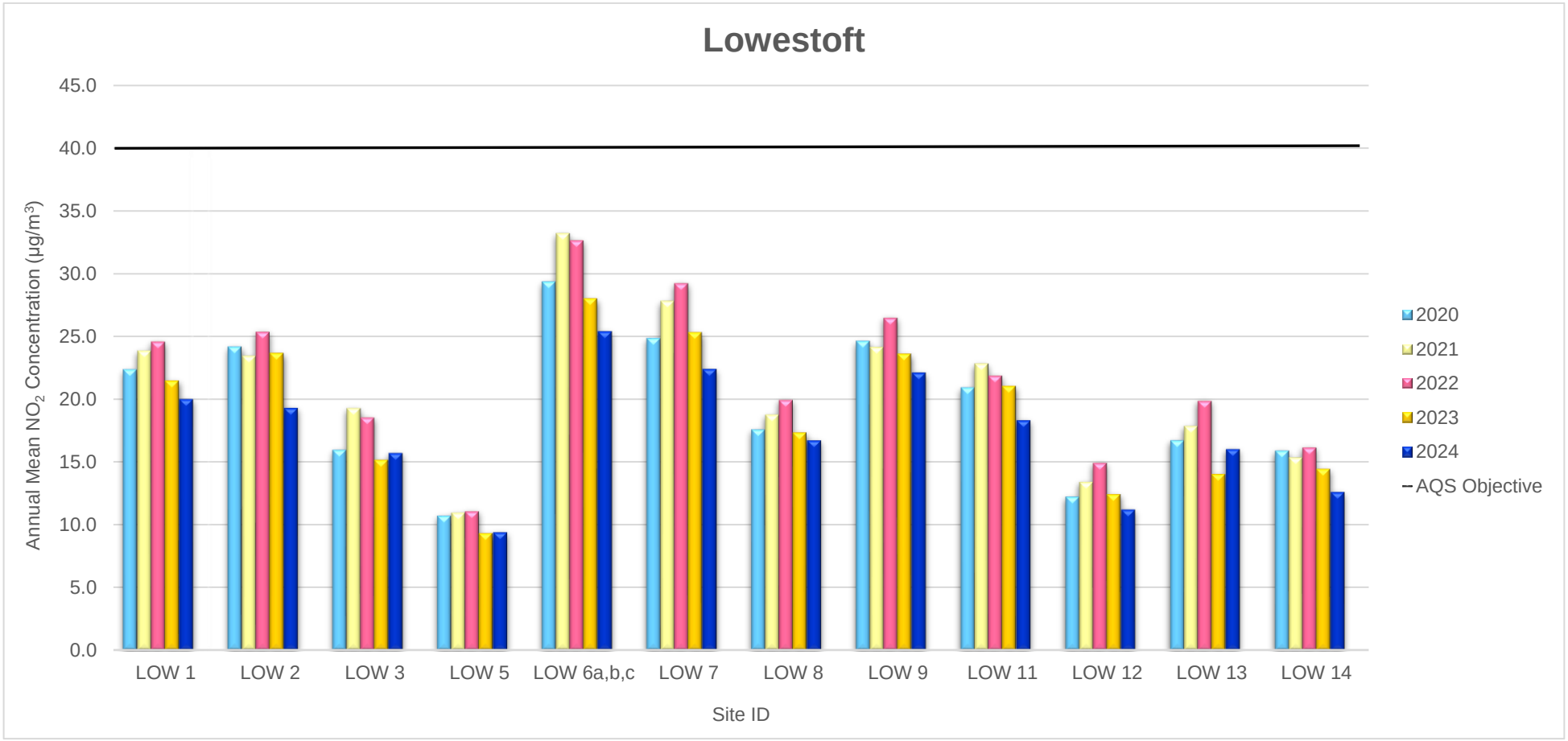
Figure A.1 – Trends in Annual Mean NO_2 Concentrations

Trends in Annual Mean NO_2 Concentrations at monitoring sites located within the Stratford St Andrew AQMA (revoked 18th December 2024)

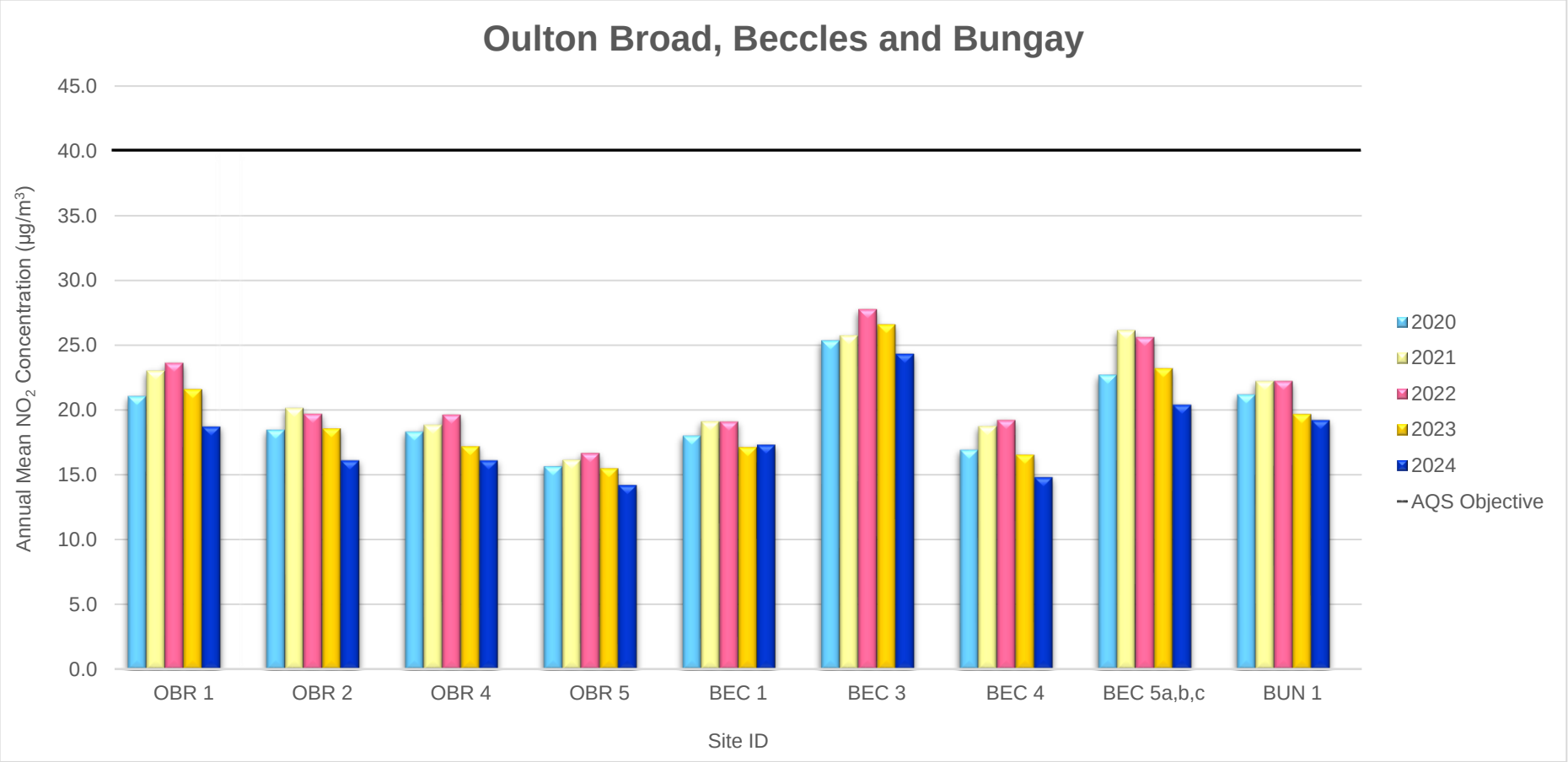


Trends in Annual Mean NO_2 Concentrations at monitoring sites Woodbridge including the continuous automatic analyser

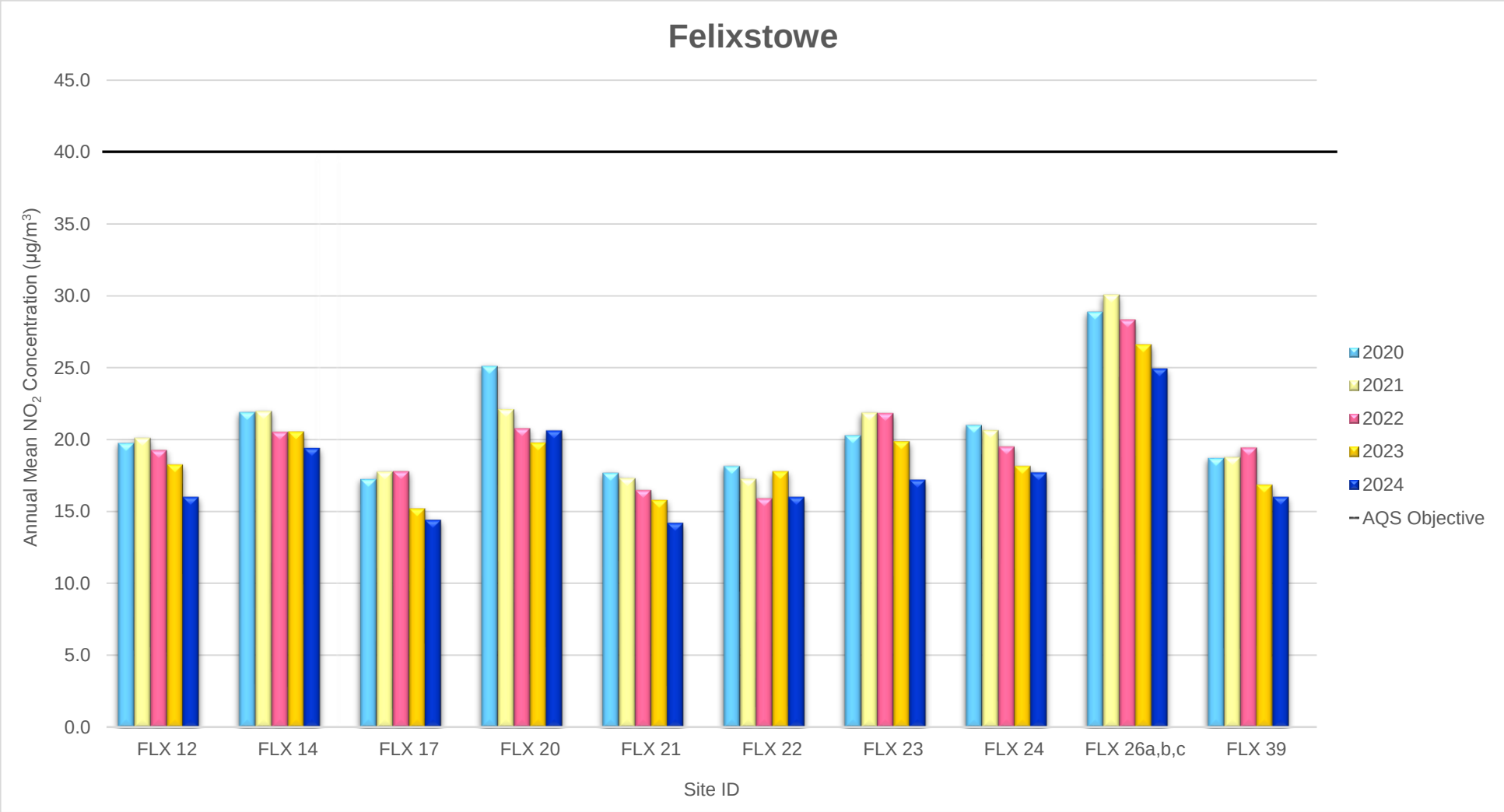
Trends in Annual Mean NO_2 Concentrations at monitoring sites within Lowestoft



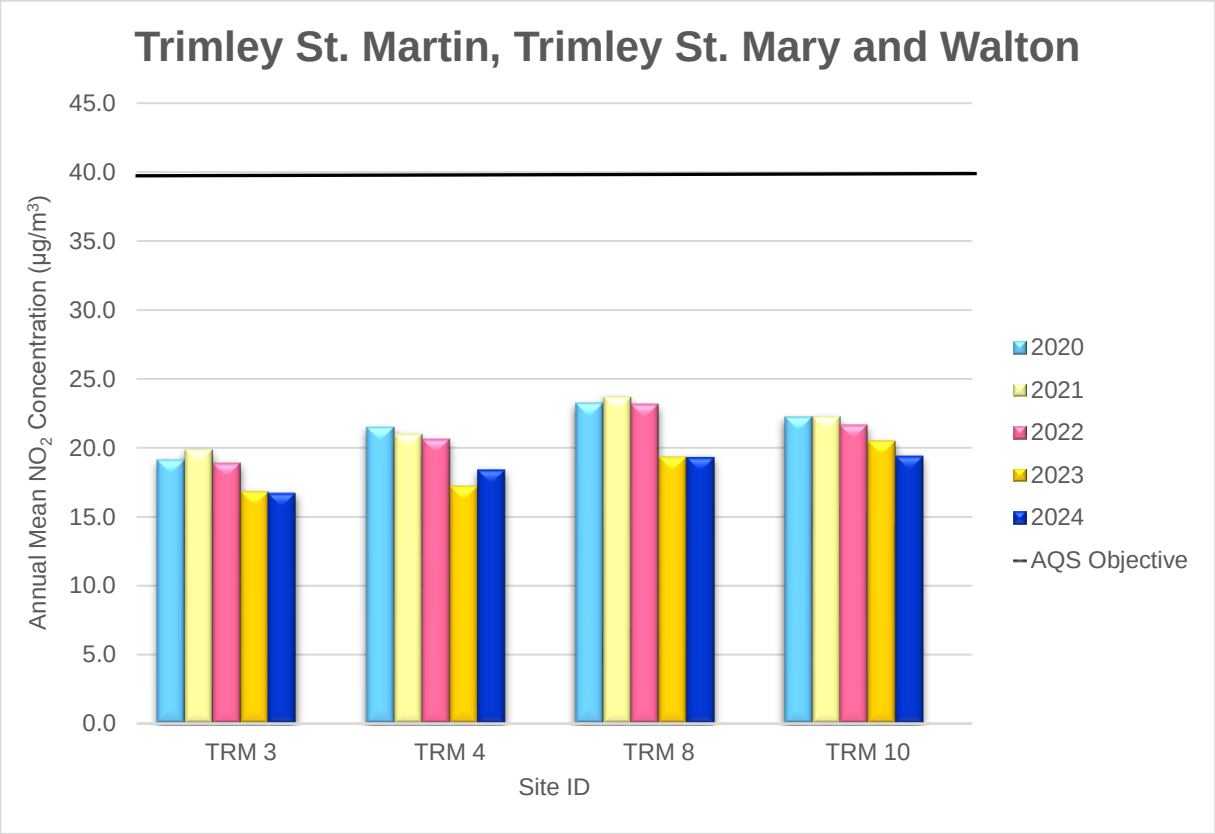
Trends in Annual Mean NO_2 Concentrations at monitoring sites within Oulton Broad, Beccles and Bungay



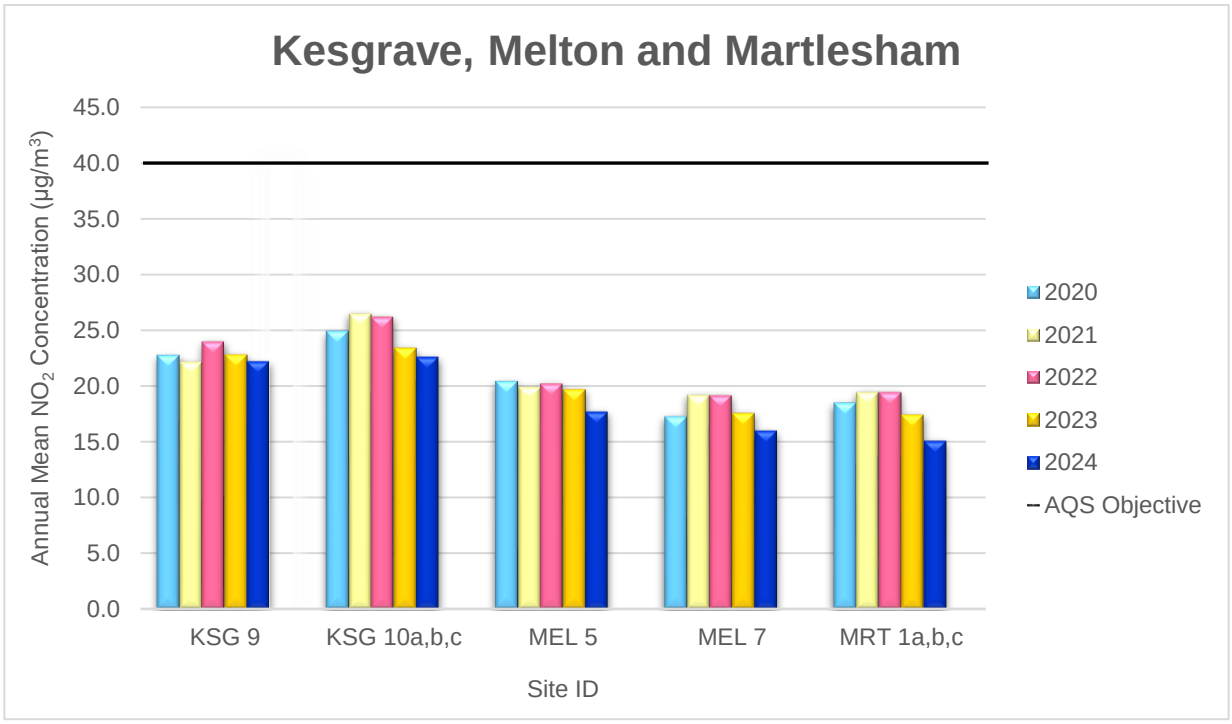
Trends in Annual Mean NO_2 Concentrations at monitoring sites within Felixstowe



Trends in Annual Mean NO_2 Concentrations at monitoring sites within Trimley St. Martin, Trimley St. Mary and Walton

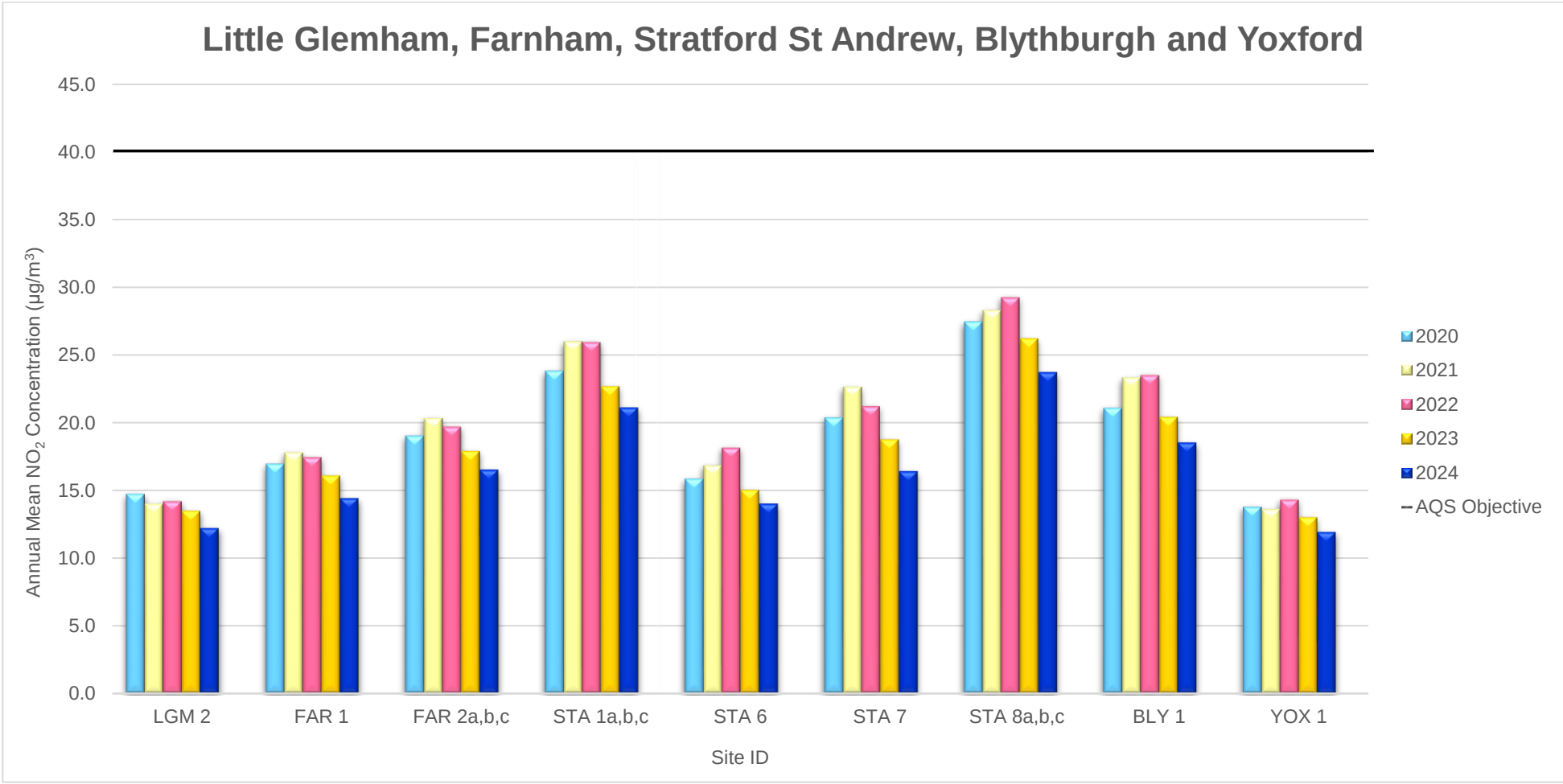


Trends in Annual Mean NO_2 Concentrations at monitoring sites within Kesgrave, Melton and Martlesham



Trends in Annual Mean NO_2 Concentrations at monitoring sites along the A12

Little Glemham, Farnham, Stratford St. Andrew, Blythburgh and Yoxford



Trends in Annual Mean NO_2 Concentrations at monitoring sites within Saxmundham, Leiston, Middleton, Theberton and Tunstall

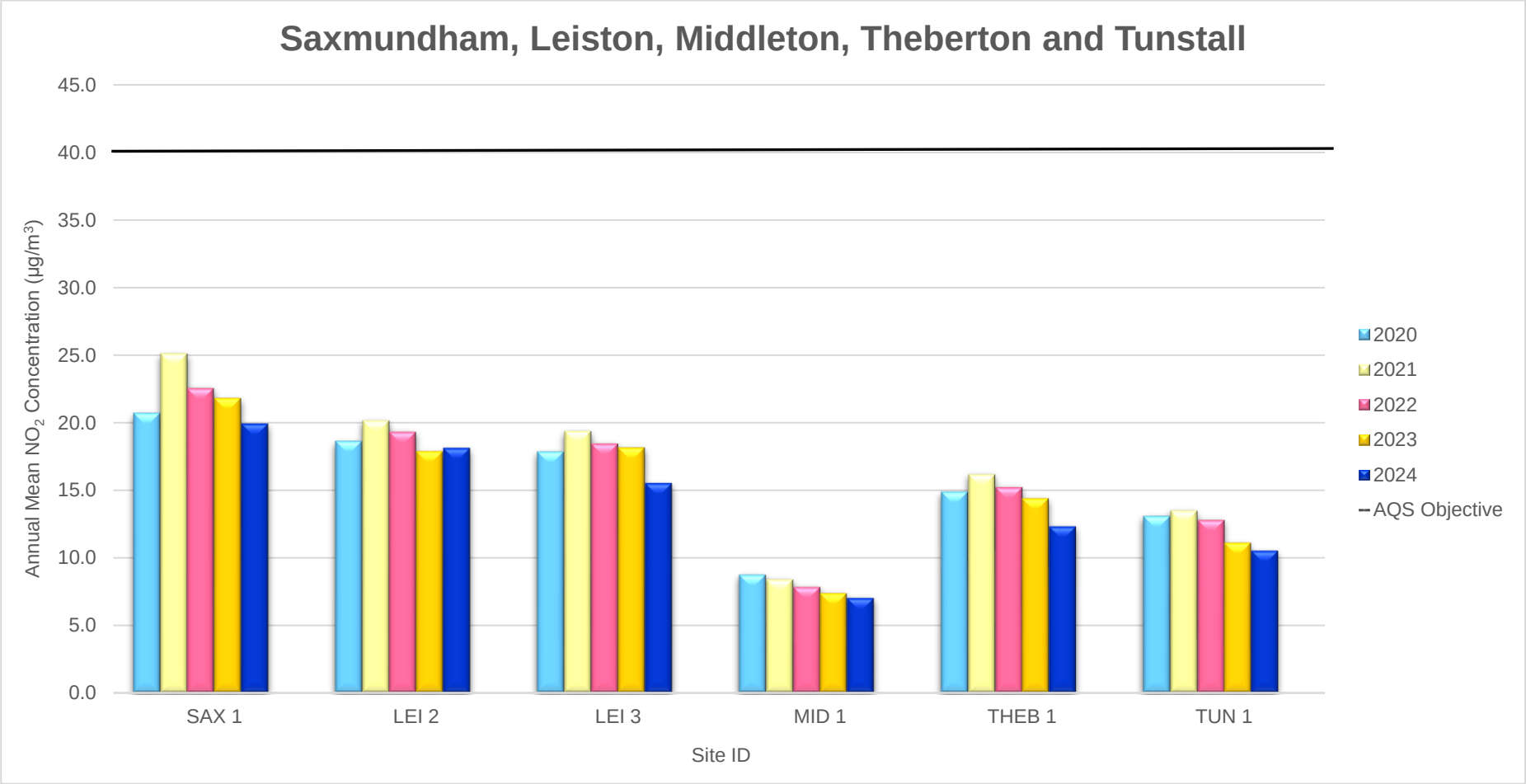


Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
WBG	627596	249261	Roadside	91.4	91.4	**0 (122)**	0	0	0	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m^3 have been recorded.

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.6 – Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
SIB	636276	271902	Rural	98.79	98.79					10

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

Exceedances of the PM_{10} annual mean objective of $40\mu g/m^3$ are shown in **bold**.

All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
SIB	636276	271902	Rural	98.79	98.79					0

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

Exceedances of the PM_{10} 24-hour mean objective (50µg/m^3 not to be exceeded more than 35 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.8 – Annual Mean $PM_{2.5}$ Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
SIB	636276	271902	Rural	98.79	98.79					7

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 Diffusion Tube Results ($\mu g/m^3$)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.76 Woodbridge sites & 0.78 other sites)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
LOW 1	654606	292625	22.5	33.9	27.5	22.2	25.5	23.8	30.4	24.9	18.3	25.4	27.2	#	25.6	20.0	-	
LOW 2	653209	293785	20.6	28.3	36.5	23.8	26.4	20.5	30.8	28.4	18.3	30.8	15.8	17.1	24.8	19.3	-	
LOW 3	654477	292395	22.3	23.3	19.7	16.2	26.4	19.5	19.5	16.6	20.2	15.7	21.6	#	20.1	15.7	-	
LOW 5	654065	294200	12.1	15.3	9.2	11.6	13.8	#	11.4	10.0	7.8	14.2	14.7	#	12.0	9.4	-	
LOW 6a	654690	292625	38.6	35.9	#	36.5	44.6	36.0	35.9	30.3	37.9	20.9	33.7	17.1	-	-	-	Triplicate Site with LOW 6a, LOW 6b and LOW 6c - Annual data provided for LOW 6c only
LOW 6b	654690	292625	38.2	37.9	30.5	37.0	43.8	33.4	33.3	33.8	41.0	30.3	32.7	#	-	-	-	Triplicate Site with LOW 6a, LOW 6b and LOW 6c - Annual data provided for LOW 6c only
LOW 6c	654690	292625	32.1	34.7	21.0	26.8	37.2	35.6	32.8	34.3	26.0	26.0	34.4	25.1	32.6	25.4	-	Triplicate Site with LOW 6a, LOW 6b and LOW 6c - Annual data provided for LOW 6c only
LOW 7	654671	292601	21.0	34.5	28.2	21.7	38.2	28.2	34.2	29.4	27.1	28.1	32.4	21.5	28.7	22.4	-	
LOW 8	654660	292571	21.8	22.6	20.0	20.4	23.9								21.7	16.7	-	
LOW 9	654723	292914	30.1	32.4	32.2	29.9	35.6		24.4	23.8	20.3	26.3	28.2	#	28.3	22.1	-	
LOW 11	652552	290427	20.6	25.8	31.2	19.4	26.5	20.1	28.7	26.3	20.7	24.5	24.8	12.4	23.4	18.3	-	
LOW 12	654200	294039	14.4	18.3	15.6	12.7	15.4	#	15.3	12.0	8.2	16.5	17.0	12.8	14.4	11.2	-	
LOW 13	654049	292963	22.9	27.1	20.4	18.1	23.5	#	19.1	17.3	14.9	22.6	24.3	15.9	20.6	16.0	-	
LOW 14	653228	293811	13.1	16.8	20.9	18.5	#	14.6	17.8	15.6	8.5	17.6	19.7	14.4	16.1	12.6	-	
LOW 16	654050	295124	23.1	30.0	27.1	22.0	29.5	22.2	24.8	24.8	22.2	29.6	31.4	13.5	25.0	19.5	-	
LOW 22	653942	292403	16.0	14.6	14.5	10.6	10.3	10.4	12.8	12.1	15.7	15.1	19.1	7.2	13.2	10.3	-	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.76 Woodbridge sites & 0.78 other sites)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
LOW 23	653924	292027	14.4	15.4	#	11.6	12.9	8.3	11.0	9.2	9.5	11.8	14.4	10.0	11.7	9.1	-	
LOW 24	652240	292255	14.9	12.1	13.9	7.8	11.3	7.5	12.7	10.1	9.5	11.6	15.1	8.5	11.3	8.8	-	
LOW 25	654661	292595								18.3	14.2	18.4	22.8	15.1	17.8	12.6	-	
OBR 1	652046	292503	23.4	29.9	31.0	24.9	25.4	21.7	24.5	23.6	19.6	18.6	25.0	19.4	23.9	18.7	-	
OBR 2	652304	293021	20.2	22.7	21.5	21.6	26.3	18.3	22.7	21.1	20.0	21.4	19.7	12.6	20.7	16.1	-	
OBR 4	651869	292127	16.0	23.8	26.1	19.7	23.1	#	23.3	20.9	18.4	23.7	18.2	13.3	20.6	16.1	-	
OBR 5	652554	293282	13.6	22.2	18.5	18.3	18.1	16.1	18.1	18.5	17.5	19.4	21.5	16.8	18.2	14.2	-	
BEC 1	642615	289909	16.4	23.9	26.4	21.9	21.4	19.6	25.0	21.0	17.9	26.6	24.5	#	22.2	17.3	-	
BEC 3	642553	289922	25.5	27.5	28.1	34.1	28.3	32.7	33.4	28.3	35.0	40.0	41.4	19.3	31.1	24.3	-	
BEC 4	642564	289922	17.0	18.7	19.1	20.3	21.2	14.2	19.2	18.8	21.2	23.5	19.4	15.5	19.0	14.8	-	
BEC 5a	642592	289916	17.9	19.4	29.3	28.4	30.7	17.4	28.3	24.9	32.9	28.5	32.3	21.0	-	-	-	Triplicate Site with BEC 5a, BEC 5b and BEC 5c - Annual data provided for BEC 5c only
BEC 5b	642592	289916	18.8	24.7	27.4	23.7	28.5	26.1	27.0	27.9	32.5	30.4	30.2	20.7	-	-	-	Triplicate Site with BEC 5a, BEC 5b and BEC 5c - Annual data provided for BEC 5c only
BEC 5c	642592	289916	20.3	28.4	26.0	27.0	26.6	28.1	25.8	26.8	30.1	32.4	28.5	14.1	26.2	20.4	-	Triplicate Site with BEC 5a, BEC 5b and BEC 5c - Annual data provided for BEC 5c only
BEC 7	644220	290213	20.2	19.5	18.2	13.4	17.9	10.4	14.7	13.8	15.2	18.6	20.1	10.8	16.1	12.5	-	
BEC 9	642681	289896	15.6	19.4	23.2	16.0	18.5	13.9			17.0	21.6	22.0	14.6	18.2	14.2	-	
HLW 3	638711	277909	16.9	20.2	21.6	13.8			15.2	14.1	10.3	18.7	15.1	10.1	15.6	12.2	-	
BUN 1	633670	289817	28.0	27.5	23.7	22.7	26.4	22.5	22.8	23.6	21.2	29.9	27.4	19.8	24.6	19.2	-	
BUN 3	633815	289511	26.0	24.5	22.9	21.8	28.2	22.0	16.4			21.0	20.6	16.8	22.0	17.2	-	
BUN 4	633704	289628	28.7	27.4	27.3	23.4	22.7	16.2	20.7	23.5	19.3	25.4	25.0	20.1	23.3	18.2	-	
ILK 1	638201	282968	10.4	11.9	13.4	9.2	11.3	#	10.8	10.2	6.4	12.4	13.5	#	11.0	8.5	-	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.76 Woodbridge sites & 0.78 other sites)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
BLY 1	645183	275218	16.9	24.7	26.8	20.6	28.0	23.1	28.5	25.7	24.5	27.7	#	14.8	23.8	18.5	-	
FLX 12	630363	234890	23.7	11.8	23.7	20.5	20.4	19.2	21.2	18.0	16.4	22.0	27.4	21.4	20.5	16.0	-	
FLX 14	628604	232847	29.2	30.2	21.6	21.1	23.8	26.0	23.6	23.9	21.5	24.4	28.3	24.5	24.8	19.4	-	
FLX 17	628817	236323	19.8	25.5	22.3	17.1	18.5	14.7	18.6	17.6	10.2	21.0	19.4	17.3	18.5	14.4	-	
FLX 20	628669	233979	28.9	26.9	25.1	31.9	22.9	25.5	26.4	31.3	20.1	24.8	24.9	28.7	26.5	20.6	-	
FLX 21	629253	234431	20.5	21.3	20.0	18.8	17.6	14.9	17.1	17.8	12.6	18.6	21.3	#	18.2	14.2	-	
FLX 22	629172	233446	26.1	19.8	31.8	18.7	17.8	17.8	17.8	16.7	13.9	19.6	25.8	#	20.5	16.0	-	
FLX 23	628542	236592	17.2	23.8	24.2	18.9	29.6	18.6	23.7	#	21.3	23.3	23.7	18.2	22.0	17.2	-	
FLX 24	628358	234634	29.9	24.7	26.7	24.2	18.7	19.8	19.5	20.7	15.6	21.2	28.2	22.7	22.7	17.7	-	
FLX 26a	627959	234246	29.3	26.2	33.8	27.7	26.5	28.1	29.5	29.4	23.4	28.4	35.1	31.8	-	-	-	Triplicate Site with FLX 26a, FLX 26b and FLX 26c - Annual data provided for FLX 26c only
FLX 26b	627959	234246	35.6	24.2	31.9	30.8	32.0	31.9	32.8	32.0	31.8	35.3	36.9	34.2	-	-	-	Triplicate Site with FLX 26a, FLX 26b and FLX 26c - Annual data provided for FLX 26c only
FLX 26c	627959	234246	33.6	35.8	35.3	32.2	28.0	30.5	33.0	30.9	36.2	37.2	41.2	36.1	31.9	24.9	-	Triplicate Site with FLX 26a, FLX 26b and FLX 26c - Annual data provided for FLX 26c only
FLX 39	628760	236071	21.6	27.1	24.6	16.3	20.2	20.8	21.2	19.7	16.2	16.1	23.4	19.3	20.5	16.0	-	
FLX 45	627961	234250	19.0	33.3	29.7	27.4	26.3	26.3	26.5	26.8	24.0	31.7	29.8	29.0	27.5	21.4	-	
FLX 46	630873	235767	19.8	17.1	14.0	13.7	13.9	11.4	13.7	12.4	9.7	13.0	20.2	20.1	14.9	11.6	-	
TRM 3	627618	237092	23.6	23.1	21.6	20.1	21.6	18.0	18.8	18.4	21.1	31.4	24.0	15.6	21.4	16.7	-	
TRM 4	627613	237080	26.8	27.0	26.2	23.1	21.6	18.3	20.9	22.6	22.1	31.7	24.1	18.6	23.6	18.4	-	
TRM 8	628270	236266	30.8	33.7	29.7	22.8	18.9	20.2	27.9	21.1	20.9	21.0	28.2	21.9	24.8	19.3	-	
TRM 10	629340	235737	28.3	30.3	29.2	23.4	22.1	19.9	22.6	21.8	18.6	30.4	26.0	26.4	24.9	19.4	-	
TRM 14	628105	236397	23.8	26.9	24.0	20.0	21.5	18.4	#	15.3	18.7		29.5	23.5	22.2	17.3	-	

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TRM 15	629606	235568					20.9	18.1	22.5	21.7	21.9	31.9	28.0	34.7	25.0	19.7	-	
KSG 9	621680	245796	23.3	31.8	31.5	24.6	26.2	26.3	26.3	27.1	24.0	32.1	33.1	35.0	28.4	22.2	-	
KSG 10	621815	245785	25.7	31.9	33.7	22.5			26.8	26.7	28.7	32.8	33.9	27.5	29.0	22.6	-	
KSG 14	621793	245533	14.9	16.6	16.3	11.6	12.6	7.7	11.6	9.7	8.4	15.9	18.3	15.8	13.3	10.4	-	
MEL 5	628145	250417	21.2	27.5	26.0	24.2	21.9	20.1	21.3	20.9	17.8	24.6	20.5	26.6	22.7	17.7	-	
MEL 7	628177	250478	21.7	#	25.9	18.0	19.3	16.9	18.6	19.1	18.7	25.1	23.4	18.8	20.5	16.0	-	
MEL 11	628172	250371	16.8	14.4	14.5	13.0		11.5	12.1	12.5	8.8	16.1	15.9	12.6	13.5	10.5	-	
MRT 1a	624633	245447	19.9	22.7	21.4	18.8	21.2	16.7	19.9	18.0	17.2	20.6	21.1	20.8	-	-	-	Triplicate Site with MRT 1a, MRT 1b and MRT 1c - Annual data provided for MRT 1c only
MRT 1b	624633	245447	23.5	23.9	19.8	17.9	21.3	17.4	19.7	19.3	16.1	17.4	#	22.4	-	-	-	Triplicate Site with MRT 1a, MRT 1b and MRT 1c - Annual data provided for MRT 1c only
MRT 1c	624633	245447	15.0	19.8	18.5	20.3	21.5	16.2	18.2	17.2	17.3	#	16.8	20.6	19.3	15.1	-	Triplicate Site with MRT 1a, MRT 1b and MRT 1c - Annual data provided for MRT 1c only
MRT 14	624783	244647	15.8	15.8	15.0	10.4	12.7	8.7	10.6			14.3	14.2	10.7	12.8	10.0	-	
LGM 2	634051	258315	19.0	17.9	18.4	17.0	#	14.2	12.8	14.7	8.9	15.5	17.5	15.7	15.6	12.2	-	
FAR 1	636273	260134	22.4	14.2	20.1	19.8	21.7	16.8	16.9	17.7	23.1	15.1	18.9	14.9	18.5	14.4	-	
FAR 2a	636274	260120	25.4	24.0	24.9	19.1	22.2	18.3	17.0	20.0	14.6	19.5	25.3	20.9	-	-	-	Triplicate Site with FAR 2a, FAR 2b and FAR 2c - Annual data provided for FAR 2c only
FAR 2b	636274	260120	24.5	23.1	20.4	17.3	22.4	18.2	17.7	21.6	21.9	24.6	26.0	17.9	-	-	-	Triplicate Site with FAR 2a, FAR 2b and FAR 2c - Annual data provided for FAR 2c only
FAR 2c	636274	260120	25.3	20.4	22.8	17.8	22.8	20.7	19.4	20.6	19.6	24.9	21.9	#	21.2	16.5	-	Triplicate Site with FAR 2a, FAR 2b and FAR 2c - Annual data provided for FAR 2c only
STA 1a	635753	260002	27.4	24.0	28.1	24.4		20.5	26.8	26.9	26.5	25.9	27.6	24.4	-	-	-	Triplicate Site with STA 1a, STA 1b and STA 1c - Annual data provided for STA 1c only
STA 1b	635753	260002	24.2	32.4	29.2	25.3		23.8	26.3	30.9	28.2	33.6	29.2	17.6	-	-	-	Triplicate Site with STA 1a, STA 1b and STA 1c - Annual data provided for STA 1c only
STA 1c	635753	260002	27.7	31.3	29.8	25.5		25.6	27.2	27.6	25.9	33.3	30.0	24.3	27.0	21.1	-	Triplicate Site with STA 1a, STA 1b and STA 1c - Annual data provided for STA 1c only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.76 Woodbridge sites & 0.78 other sites)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
STA 6	635794	260042	16.5	20.2	20.4	15.8	20.6	15.9	19.2	19.9	15.4	21.3	14.9	15.7	18.0	14.0	-	
STA 7	635736	259984	23.7	#	20.6	17.4	24.5	19.9	19.3	19.4	23.0	18.3	23.5	21.0	21.0	16.4	-	
STA 8a	635743	259992	24.7	#	31.3	25.4		26.6	25.3	33.1	30.9	35.0	#	#	-	-	-	Triplicate Site with STA 8a , STA 8b and STA 8c - Annual data provided for STA 8c only
STA 8b	635743	259992	35.6	36.6	34.7	26.6		26.6	29.7	33.7	34.2	33.1	30.0	26.3	-	-	-	Triplicate Site with STA 8a , STA 8b and STA 8c - Annual data provided for STA 8c only
STA 8c	635743	259992	29.8	34.9	30.6	26.7		28.0	31.3	34.5	35.1	23.7	29.9	27.9	30.4	23.7	-	Triplicate Site with STA 8a , STA 8b and STA 8c - Annual data provided for STA 8c only
THEB 1	643797	265815	14.5	16.2	15.5	13.6	17.5	15.4	13.7	15.4	13.6	19.7	18.2	16.3	15.8	12.3	-	
MID 1	641611	267791	9.3	11.0	11.5	7.2	9.8	6.8	7.7	8.4	7.2	9.8	10.4	8.4	9.0	7.0	-	
YOX 1	639647	268740	15.4	19.4	19.8	15.5	13.5	13.9	13.4	16.0	7.9	15.9	17.1	15.5	15.3	11.9	-	
YOX 2	639693	268778	9.9	13.0	13.4	9.0	10.4	7.8	9.6	10.6	6.5	12.3	12.2	9.9	10.4	8.1	-	
SAX 1	638683	263014	31.2	15.6	26.2	25.8	22.5	24.8	25.2	26.6		27.1	30.6	#	25.6	19.9	-	
LEI 2	644557	262464	24.4	28.2	25.9	16.1	18.5	20.8	24.3	22.0	25.4	20.5	29.0	#	23.2	18.1	-	
LEI 3	644325	262634	20.5	21.2	24.7	18.7	23.8	17.6	20.8	8.3	24.3	23.3	18.6	15.9	19.8	15.5	-	
LEI 4	644843	262483	14.8	17.0	15.5	12.0	12.6		11.5	10.4		13.7	15.6	13.6	13.7	10.7	-	
TUN 1	636110	255114	17.0	#	15.2	14.7	13.4	12.9	12.3	11.6	8.4	11.7	17.0	13.3	13.4	10.5	-	
MLS 1	632734	257733	18.3	17.0	16.3	15.4	15.9	15.3	13.9	13.5	12.6	#	20.2	16.7	15.9	12.4	-	
WKM 1	630180	255718	15.8	13.4	16.3	13.0	13.1	14.0	12.8	12.8	12.3	14.5	16.9	13.6	14.0	11.0	-	
WKM 2	630164	255904	25.3	22.0	21.9	20.0	23.0	20.6	18.9	21.2	20.6	23.1	23.1	18.9	21.6	16.8	-	
KNO 1	643651	260733	14.6	10.9	10.1	8.5	10.5	7.0	7.1	7.2	8.1	8.8	11.9	22.3	10.6	8.3	-	
WBG 1a	627596	249261	28.8	29.7	25.6		25.5	22.4	23.3	23.8	21.7	27.8	31.8	25.7	-	-	-	Triplicate Site with WBG 1a, WBG 1b and WBG 1c - Annual data provided for WBG 1c only
WBG 1b	627596	249261	20.8	34.1	28.3	24.3	26.4	23.9	24.7	22.4	23.4	27.5	25.6	27.2	-	-	-	Triplicate Site with WBG 1a, WBG 1b and WBG 1c - Annual data provided for WBG 1c only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.76 Woodbridge sites & 0.78 other sites)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
WBG 1c	627596	249261	24.0	29.9	25.9	25.4	26.0	23.2	24.6	24.4	24.5	30.6	32.0	24.6	26.0	19.8	-	Triplicate Site with WBG 1a, WBG 1b and WBG 1c - Annual data provided for WBG 1c only
WBG 3	626997	248488	11.1	5.1	11.2	8.8	9.2	7.2	8.1	9.1	6.5	12.3	14.0	7.8	9.2	7.0	-	
WBG 5	627604	249243	17.6	18.8	17.8	15.2	16.0	13.9	15.1	15.1	15.5	17.5	18.4	14.7	16.3	12.4	-	
WBG 8	627601	249283	27.1	30.1	26.1	21.8	26.7	22.1	23.9	22.7	26.7	26.4	23.5	26.3	25.3	19.3	-	
WBG 10	627570	249240	20.8	21.1	20.5	15.3	13.3	15.1	16.3	17.5	21.6	21.1	22.0	16.7	18.4	14.1	-	
WBG 12	627664	249203	19.5	11.7	19.1	15.9	15.2	15.7	14.4	16.1	14.4		21.4	19.8	16.7	12.7	-	
WBG 13	627585	249239	25.0	25.4	22.8	21.3	21.1	17.4	19.5	19.9	13.9	23.4	26.5	19.9	21.3	16.3	-	
WBG 18	627627	249339	13.1	27.0	26.7	19.4	23.6	18.9	21.2						21.4	17.6	-	
WBG 20	627604	249295	27.4	29.9	24.5	23.7	23.0	22.2	23.5	24.5	19.9	27.6	27.4	#	24.9	19.0	-	
WBG 24	626026	249631	16.1	27.8	29.4	17.3	20.4	15.8	18.9	17.8	12.5	24.2	19.1	16.1	19.6	15.0	-	
WBG 25	626038	249389	21.5	17.5	21.0	17.7	18.6	18.1	17.4	16.5	10.3	15.4	21.5	18.1	17.8	13.6	-	
WBG 27	626690	249111	15.1	13.2	11.9	9.9	9.4	5.8	8.6	9.1	6.1	13.0	15.4	10.2	10.6	8.1	-	
WBG 28	627732	249600	23.0	25.1	21.5	16.9	16.9	14.1	15.0		11.1	19.0	20.9	20.7	18.6	14.2	-	
WBG 29	627497	249626	13.0	12.0	13.2	7.9	9.1	6.5	7.6	7.6	3.5	11.3	11.6	10.6	9.5	7.2	-	

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1 and is marked with #.**

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☒ **Local bias adjustment factor used for Woodbridge sites only.**

☒ **National bias adjustment factor used for all other locations.**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column.**

☒ **East Suffolk Council confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within East Suffolk Council During 2024

East Suffolk Council identified 2 new sources relating to air quality during the reporting year of 2024. Details of each source are included in the main body of the report and also provided below.

National Grid Electricity Transmission Sea Link – Nationally Significant Infrastructure project (NSIP)

National Grid Electricity Transmission is proposing to reinforce the electricity network between Kent and Suffolk via a new, primarily offshore, 2 gigawatt high voltage direct current link. Sea Link has been designed to increase the capability of the network to carry low carbon and renewable energy from where it is generated to two million homes and businesses across the country. The onshore proposal within ESC requires a landfall between Aldeburgh and Thorpeness, a new onshore converter station near Saxmundham, a substation at Friston, onshore underground cabling between substation and converter station and an underground cable connection from the proposed converter station at Saxmundham and the landfall site.

The planning application for Sea Link was submitted in March 2025, accepted by the Planning Inspectorate in April 2025 and it is currently within the pre-examination phase. ESC officers are undertaking a full technical review of the submitted documents.

National Grid Ventures LionLink - NSIP

LionLink is planned to be a new subsea cable (an interconnector) to provide an electricity link between UK and the Netherlands offshore windfarms. The onshore proposal within ESC is to connect from the proposed substation at Friston (already granted planning consent via a Scottish Power Renewables application), run an underground cable from Friston to a new converter station near to Saxmundham and then a further underground cable between the converter station and a landfall point at Walberswick. ESC officers are involved in pre-application scoping work for this NSIP.

Additional Air Quality Works Undertaken by East Suffolk Council During 2024

Following consistent reductions in NO_2 concentrations within the AQMA located at Stratford St. Andrew (Suffolk Coastal District Council AQMA Order No. 3, 2014) since 2015, the decision was made to revoke this AQMA following advice from Defra based on monitoring data presented in our 2024 ASR.

A draft Revocation Assessment presenting evidence to support the revocation of the AQMA located at Stratford St. Andrew was produced, taken to the Steering Group and finalised. The assessment considered the historical monitoring data, projected NO_2 concentrations over the next five years, local and national trends in NO_2 emissions, and local and regional factors that may impact on the AQMA. This included the Nationally Significant Infrastructure Projects (NSIPs) expected to commence within East Suffolk – including Sizewell C, and the East Anglia One (North) and East Anglia Two offshore windfarms. The report is presented in Appendix F of this ASR.

Public consultation on the Revocation Assessment findings and the intention of ESC to revoke the AQMA ran from October to December 2024. The Council received 3 responses to the consultation, the results were collated and placed on the ESC website at Consultation summary - Stratford St Andrew AQMA revocation. All respondents were replied to individually.

On 18th December 2024 the Suffolk Coastal District Council AQMA Order No. 3, 2014 located within Stratford St. Andrew was revoked following the findings of the revocation assessment and the results of the public consultation. A copy of the Revocation Order is attached in Appendix G.

Air quality monitoring within the revoked AQMA and at Stratford St. Andrew has continued and annual mean NO_2 concentrations continue to fall in 2024, with the maximum concentration recorded in the revoked AQMA recorded as 23.7 µg/m^3. Diffusion tube monitoring results can be seen in Section 3 of this document.

Our monitoring regime will not alter - the Council will continue to monitor air quality in Stratford St. Andrew and along the A12. This is particularly important as the Early Years works have now started for Sizewell C, construction associated with cabling has begun for the EA3 Offshore Windfarm, and initial surveying work has started for both the

EA1N and EA2 Offshore Windfarms. We will be keeping a close eye on nitrogen dioxide concentrations at this location, and across the district, and working closely with each project individually and cumulatively.

QA/QC of Diffusion Tube Monitoring

Diffusion tubes are used widely by ESC. Diffusion tubes were deployed, and analysed, as set out in the Technical Guidance LAQM.TG22 paragraphs 7.197-7.234, and in accordance with the "NO_2 Diffusion Tubes for LAQM: Guidance Note for Local Authorities".

Monitoring in 2024 was completed in adherence with the 2024 Diffusion Tube Monitoring Calendar, whereby all changeovers were completed within ±2 days of the specified date.

The analytical laboratory used for supply and analysis of NO_2 diffusion tubes for 2024 was SOCOTEC based in Didcot. The monitoring is undertaken using Palmes passive diffusion tubes exposed on a monthly basis. The tubes are prepared by spiking acetone:triethanloamine (TEA) (50:50) onto the grids prior to the tubes being assembled. The tubes are then desorbed with distilled water and the extract analysed using a segmented flow auto-analyser with ultraviolet detection.

The samples were analysed in accordance with SOCOTEC standard operating procedure ANU/SOP/1015, which meets the guidelines set out in Defra's 'Diffusion Tubes For Ambient NO_2 Monitoring practical Guidance'. The results were initially calculated assuming an ambient temperature of 11^{o}C, and the reported values adjusted to 20^{o}C to allow for direct comparison with EU limits.

The laboratory is formally accredited under UKAS and participates in the Defra run independent AIR-PT Scheme for NO2 tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO_2 concentrations reported are of a high calibre. The lab follows the procedures set out in the Harmonisation Practical Guidance.

AIR-PT combines two long running proficiency testing (PT) schemes: LGC Standards STACKS PT scheme and HSL Workplace Analysis Scheme for Proficiency (WASP) PT scheme. For NO_2 diffusion tubes, the test sample types used are called AIR NO_2 and these are distributed to participating laboratories on a quarterly basis. In the AIR PT intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, SOCOTEC held the highest rank of a **Satisfactory** laboratory in 2024.

In the field inter-comparison exercise, diffusion tubes are co-located with an automatic analyser. Defra hosts a summary of the total number of recorded good/bad precision results for the last 3 years for all laboratories that currently provide diffusion tube analysis. This precision reflects the laboratory's performance and consistency in preparing and

analysing the tubes. Precision summary results for SOCOTEC (using the 50% TEA in Acetone method) show 33 ‘Good’ results and 2 ‘Bad’ results for 2023 and 30 ‘Good’ and 3 ‘Bad’ results for 2024.

At the end of the monitoring period, any erroneous diffusion tube data was deleted (marked with # in Table B.1) and is summarised below;

- A large amount of site data has been removed from the dataset due to very low results at some sites and lower than expected at others. Data was removed in February (MEL 7, STA 7, STA 8a, TUN 1), March (LOW 6a), May (LOW 14), Jun (LOW 5, 12, 13, OBR 4), October (MLS 1 and MRT 1c), November (BLY 1, STA 8a) and December (LOW 1, 3, 5, 6b, 9, BEC 1, ILK 1, FLX 21, 22, WBG 20, FAR 2c, STA 8a, SAX 1, LEI 2).
  Our procedures have been checked and no obvious problems encountered. Some of the above sites are part of triplicate sets for which the other 2 tubes had results that were not considered too low.
  Low results throughout the year were also noticed by other Suffolk local authorities in 2023, and similar problems were encountered in November 2022 and reported in our 2023 ASR. Discussions with, and investigations by, the laboratory did not determine any error with the tube analysis and site operator error was ruled out. Following a post on the Air Quality Hub, which highlighted the number of local authorities potentially impacted, the Defra helpdesk investigated but no action was deemed necessary.
- Data for ILK 1 in June and MRT 1b in November were considered too low following spiders found in the tubes when collected in at the end of the monitoring period.
- Data for site FLX 23 in August and WBG 12 in October was very low when compared with data for the rest of the year. The laboratory reported that the top black caps were broken and therefore accuracy was in question and this data has been removed from the dataset.
- Data for site LGM 2 in May was found to be to low following damage to the tube during exposure - this data has been removed from the dataset.
- Data for TRM 14 in July was found to be too low following the tube being tilted at some point during exposure – this data has been removed from the dataset.
- Data for site LOW 23 in March was very high when compared with nearby sites and other months for this location. When looking at our paperwork it was suspected that a mistake had been made - this data has been removed from the dataset.

The annual average was then calculated for each site. For any sites with data capture less than 75% (9 months) the results were annualised. As diffusion tubes tend to under or over read this can result in low accuracy and it is necessary to bias correct the results based upon local or national collocation studies with chemiluminescent analysers. Bias correction was undertaken after annualisation of the data. Distance correction was not required with all concentrations below 36µg/m^3 at all relevant receptors. Further details of all stages are outlined in the following text.

Diffusion Tube Annualisation

Four diffusion tube monitoring locations within ESC recorded data capture of <75%;

- LOW 8 – this site was removed as of June 2024 as access was no longer possible due to overgrown vegetation that could not be cut back.
- LOW 25 – this was a new site from August 2024 to replace LOW 8.
- TRM 15 – his was a new site put in place to replace TRM 12 which we had been unable to access.
- WBG 18 – this site was removed as of August 2024 as the resident no longer wanted it in place.

For each site, the mean of the 2024 data has been “annualised” using the procedure set out in LAQM.TG22 Box 7.10. The annualisation was carried out within the Defra Diffusion Tube Data Processing Tool. The method is as follows:

- Identify 2-4 nearby, long term, continuous monitoring sites, ideally those forming part of the national network. These should be background sites (Urban background, Suburban or Rural) to avoid any very local effects that may occur at Urban Centre, Roadside or Kerbside sites, and should wherever possible lie within a radius of about 50 miles. Three sites have been used here; Wicken Fen (Rural Background), St. Osyth (Rural Background) and Norwich Lakenfields (Urban background). These sites are part of the UK Automatic Urban and Rural Network (AURN) and are the closest sites to us with sufficient data capture for the year in question;
- Obtain the unadjusted (not corrected for bias) annual mean (Am) for the calendar year for these sites;
- Work out the period mean (Pm) for the period of interest with diffusion tube results at each of the comparison sites separately;
- Calculate the ratio of the annual mean to the period mean (Am:Pm) for each period at each location;

- Calculate the average of these ratios (Ra). This is the adjustment factor;
- Multiply the measured period mean (M) for the short-term monitoring location by the adjustment factor (Ra) to give the estimate of the annual mean for 2024.

Data used for the calculations are set out in Table C.1 below.

Table C.1 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor St. Osyth	Annualisation Factor Wicken Fen	Annualisation Factor <Site 3 Name>	Annualisation Factor <Site 4 Name>	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
LOW 8	1.0076	0.9638	~	~	0.9857	21.7	21.4
LOW 25	0.9231	0.9003	~	~	0.9117	17.8	16.2
TRM 15	0.9952	1.0260	~	~	1.0106	25.0	25.2
WBG 18	1.0685	1.0903	~	~	1.0794	21.4	23.1

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Historically, East Suffolk Council have used the local bias adjustment factor obtained from the Woodbridge co-location study (using the triplicate diffusion tube site WBG 1a,b,c) to adjust annual mean NO_2 concentrations from diffusion tube sites within the Woodbridge area only. This location is unusual, being a street canyon: it is considered representative of the other diffusion tube monitoring sites within Woodbridge, but not necessarily of diffusion tube locations elsewhere within the district. The national bias adjustment factor has been used for all other locations in the district.

In 2024 the application of both a local and national bias adjustment factor has been applied to the diffusion tube data as per previous years.

ESC have applied a local bias adjustment factor of 0.76 to the 2024 monitoring data for sites in Woodbridge only, and a national bias adjustment factor of 0.78 to the 2024 monitoring data for all other sites within the district. Version 04/25 of the national diffusion tube bias adjustment factor spreadsheet was used which derived the bias adjustment figure from 33 studies. A copy of the output from the spreadsheet can be seen in Figure C.1. A summary of bias adjustment factors used by ESC over the past five years is presented in Table C.2.

Table C.3 presents the calculation of the Woodbridge diffusion tube sites local bias adjustment factor.

Figure C. 1 – National Bias Adjustment Factor Calculation (Version 04/25) for SOCOTEC Didcot in 2024

National Diffusion Tube Bias Adjustment Factor Spreadsheet — **Spreadsheet Version Number: 04/25**

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2025
LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:							
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.							
If a laboratory is not shown, we have no data for this laboratory.	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data[2]	If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953							
Analysed By[1]	lunch	Year[5] To undo your selection, choose (All)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (μg/m³)	Automatic Monitor Mean Conc. (Cm) (μg/m³)	Bias (B)	Tube Precision[6]	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in acetone	2024	R	Cambridge City Council	11	20	15	31.0%	G	0.76
SOCOTEC Didcot	50% TEA in acetone	2024	R	Cardiff Council / Shared Regulatory Services	9	35	31	14.2%	G	0.88
SOCOTEC Didcot	50% TEA in acetone	2024	R	Ipswich Borough Council	9	24	20	21.0%	G	0.83
SOCOTEC Didcot	50% TEA in acetone	2024	R	Ipswich Borough Council	11	36	26	37.9%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2024	UB	City Of York Council	11	13	11	16.0%	P	0.86
SOCOTEC Didcot	50% TEA in acetone	2024	R	City Of York Council	11	22	18	22.9%	G	0.81
SOCOTEC Didcot	50% TEA in acetone	2024	R	City Of York Council	11	26	20	31.0%	G	0.76
SOCOTEC Didcot	50% TEA in acetone	2024	R	East Suffolk Council	9	26	20	32.8%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	KS	Marylebone Road Intercomparison	10	47	36	30.5%	G	0.77
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Hull City Council	10	21	16	25.4%	P	0.80
SOCOTEC Didcot	50% TEA in acetone	2024	R	Hull City Council	9	27	20	35.3%	G	0.74
SOCOTEC Didcot	50% TEA in acetone	2024	R	Waverley Borough Council	10	21	18	13.7%	G	0.88
SOCOTEC Didcot	50% TEA in acetone	2024	R	Waverley Borough Council	11	22	16	32.3%	G	0.76
SOCOTEC Didcot	50% TEA in acetone	2024	R	Wrexham County Borough Council	10	15	13	17.0%	G	0.85
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Gravesham Borough Council	11	21	19	9.7%	P	0.91
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	35	24	43.5%	G	0.70
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	26	20	32.6%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	23	17	34.0%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	10	31	23	33.4%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	30	23	33.7%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Thanet District Council	10	19	15	24.3%	G	0.80
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Wirral Council	9	14	12	19.9%	G	0.83
SOCOTEC Didcot	50% TEA in acetone	2024	R	Derry City And Strabane District Council	11	28	32	-11.8%	G	1.13
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Derry City And Strabane District Council	11	11	7	58.1%	G	0.63
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Horsham District Council	11	22	17	31.1%	G	0.76
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Leeds City Council	10	36	28	32.5%	G	0.75
SOCOTEC Didcot	50% TEA in Acetone	2024	KS	Leeds City Council	11	29	20	42.7%	G	0.70
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Leeds City Council	11	24	18	36.4%	G	0.73
SOCOTEC Didcot	50% TEA in Acetone	2024	UC	Leeds City Council	10	25	19	31.2%	G	0.76
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Huntingdonshire District Council	10	28	23	21.1%	G	0.83
SOCOTEC Didcot	50% TEA in Acetone	2024	R	North East Lincolnshire Council	11	39	21	84.1%	G	0.54
SOCOTEC Didcot	50% TEA in Acetone	2024	UB	North East Lincolnshire Council	10	12	10	20.0%	G	0.83
SOCOTEC Didcot	50% TEA in Acetone	2024	R	North East Lincolnshire Council	11	21	18	15.7%	G	0.86
SOCOTEC Didcot	50% TEA in acetone	2024		Overall Factor[3] (33 studies)				Use		0.78

Table C.2 – Bias Adjustment Factor

Monitoring Year	Woodbridge Sites		All Other Sites		
	Local or National	Adjustment Factor	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	Local	0.76	National	04/25	0.78
2023	Local	0.72	National	03/24	0.77
2022	Local	0.72	National	03/23	0.76
2021	Local	0.80	National	06/22	0.78
2020	Local	0.84	National	06/21	0.76

Table C.3 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2	Local Bias Adjustment Input 3	Local Bias Adjustment Input 4	Local Bias Adjustment Input 5
Periods used to calculate bias	10				
Bias Factor A	0.76 (0.69 - 0.85)				
Bias Factor B	31% (18% - 44%)				
Diffusion Tube Mean (µg/m^3)	26.4				
Mean CV (Precision)	6.8%				
Automatic Mean (µg/m^3)	20.1				
Data Capture	99%				
Adjusted Tube Mean (µg/m^3)	20 (18 – 22)				

Notes:

A single local bias adjustment factor has been used to bias adjust the 2024 diffusion tube results for diffusion tube sites in Woodbridge only.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-

automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

No diffusion tube NO_2 monitoring locations within East Suffolk Council required distance correction during 2024.

QA/QC of Automatic Monitoring

Continuous NOx analyser at Woodbridge

NO_2 concentrations were monitored by a chemiluminescence analyser in Woodbridge in ESC during 2024. Quality assurance of the data from the continuous monitoring station was carried out by Ricardo-AEA following the same procedures used for sites within the Government's Automatic Urban and Rural Network (AURN). Calibrations were undertaken every 3-4 weeks by a Council Officer (Local Site Operator). The procedures adopted for the calibrations were modelled on those developed by AEA Energy & Environment for use in the national monitoring networks.

The calibrations were undertaken using certified calibration gas provided by BOC with traceability to National Metrology Standards obtained via regular the United Kingdom Accreditation Scheme (UKAS) Quality Control Audits carried out by Ricardo Energy & Environment. The audits provide a range of information that is utilised within the data management process for the data sets.

Audit tests are undertaken once a year by Ricardo Energy & Environment. They include accredited audit zero and span calibrations, linearity, NOx converter efficiency, flow and leak checks as well as checks of the instruments sampling system. Data presented in this report have been fully ratified by Ricardo Energy & Environment.

The analyser is routinely serviced biannually (December 2023, August 2024 and January 2025 when it was decommissioned) by Matts Monitors Ltd.

The data set was screened, scaled and validated using all available routine site calibrations, audit results and service engineer records. A final process of data ratification ensures that the data provide the most accurate record of the pollution concentrations across the measurement period. The data management process adopted is that evolved and implemented by Ricardo Energy & Environment within the data management programme of the AURN UK national monitoring network. This process is expected to deliver data sets that meet the EU Data Quality Objective of a measurement uncertainty of better than 15%.

Live and historic monitoring data can be found on the Air Quality England Website Air Quality England Website - ESC

Automatic Urban and Rural Network (AURN) site at Sibton

A number of organisations are involved in the day-to-day running of the network. Currently, the role of Central Management and Co-ordination Unit (CMCU) for the whole AURN is contracted to Bureau Veritas, whilst Quality Assurance and Quality Control (QA/QC) activities are contracted to Ricardo Energy & Environment for the site located at Sibton. East Suffolk Council officers have no involvement in the running of this site. Calibration gases for the network are supplied by BOC Limited and are provided with a UKAS certificate of calibration by Ricardo Energy & Environment.

Further QA/QC information for AURN sites can be viewed at Automatic Urban and Rural Network (AURN) - DEFRA UK Air - GOV.UK

Automatic Monitoring Annualisation

All automatic monitoring locations within ESC recorded data capture of greater than 75% in 2024 therefore it was not required to annualise any monitoring data.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO_2 concentrations corrected for distance are presented in Table A.3.

No automatic NO_2 monitoring locations within ESC required distance correction during 2024.

Appendix D: Map(s) of Monitoring Locations and AQMA

Figure D.1: Map of diffusion tubes: Lowestoft– LOW 1, LOW 2, LOW 3, LOW 5, LOW 6ABC, LOW 7, LOW 8, LOW 9, LOW 11, LOW 12, LOW 13, LOW 14, LOW 22, LOW 23, LOW 24, LOW 25.

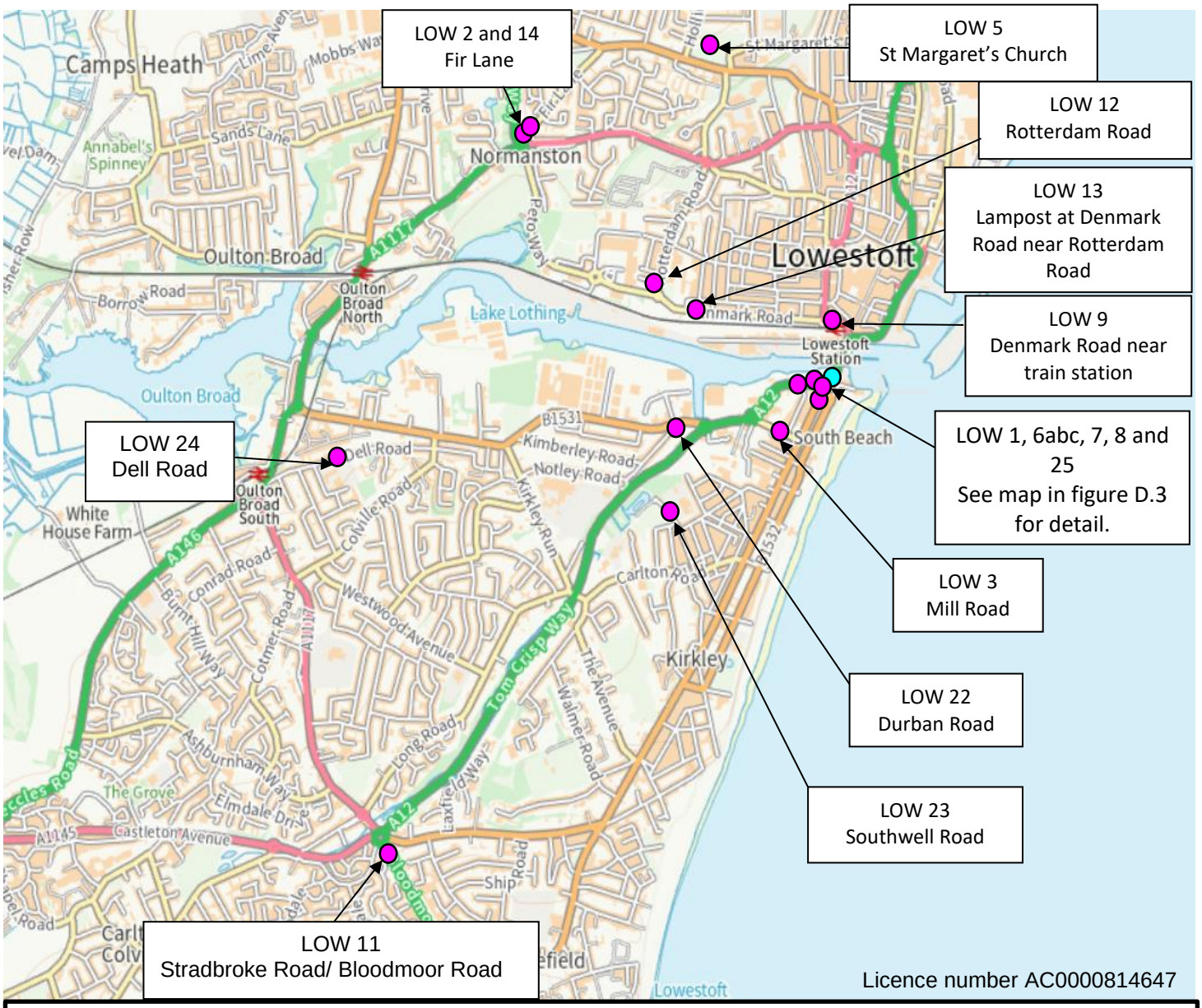


Figure D.2: Map of diffusion tubes: Lowestoft– LOW 1, LOW 2, LOW 3, LOW 5, LOW 6ABC, LOW 7, LOW 8, LOW 9, LOW 12, LOW 13, LOW 14, LOW 16, LOW 22, LOW 23, LOW 24 , LOW 25 and OBR 5.

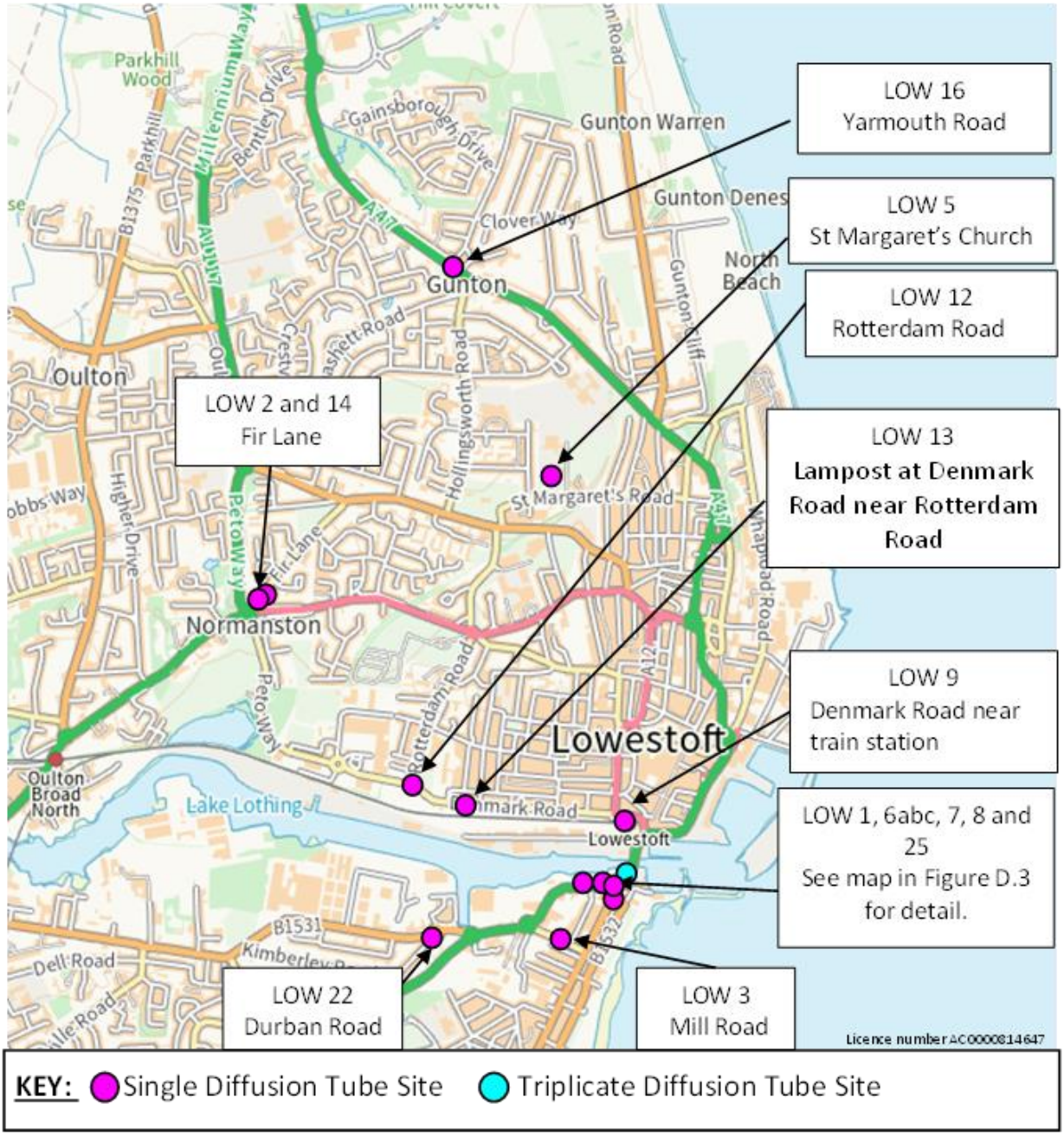


Figure D.3: Map of diffusion tubes: Lowestoft– LOW 1, LOW 6ABC, LOW 7, LOW 8 and LOW 25.

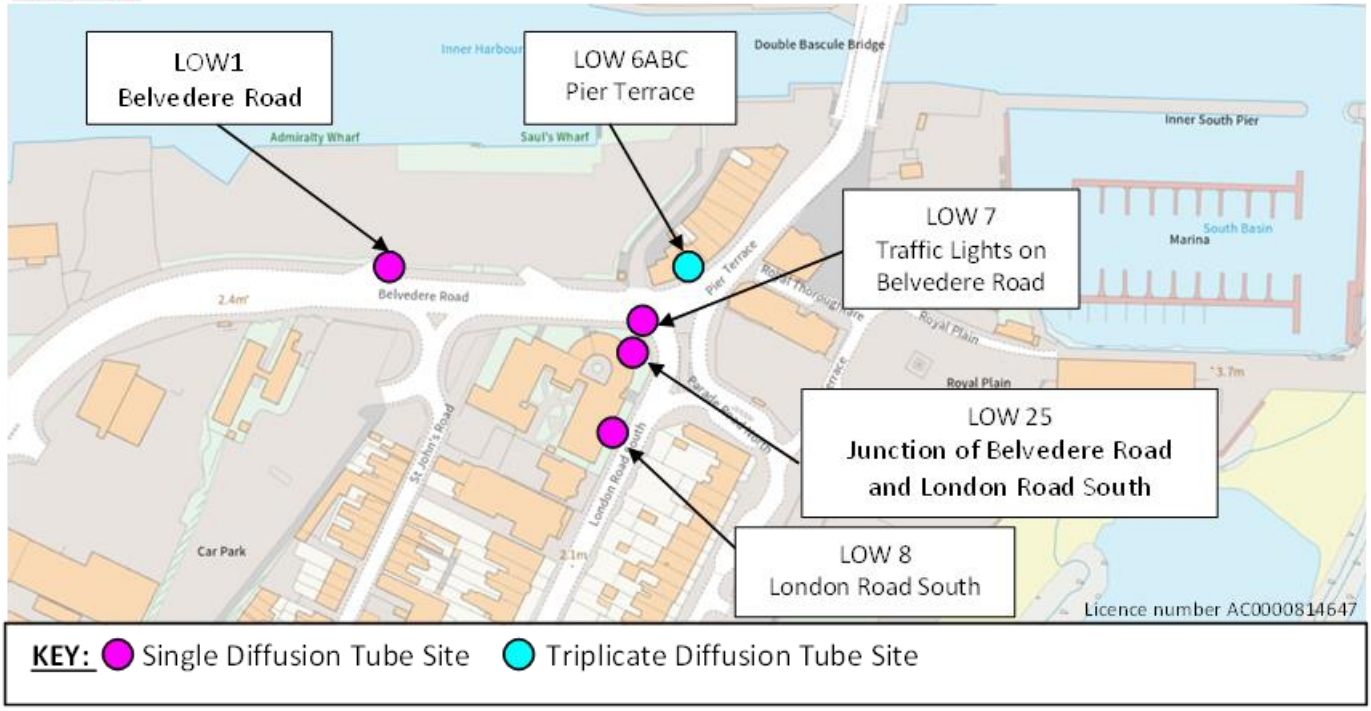


Figure D.4: Map of diffusion tubes: Oulton Broad – OBR 1, OBR 2, OBR4 and OBR 5

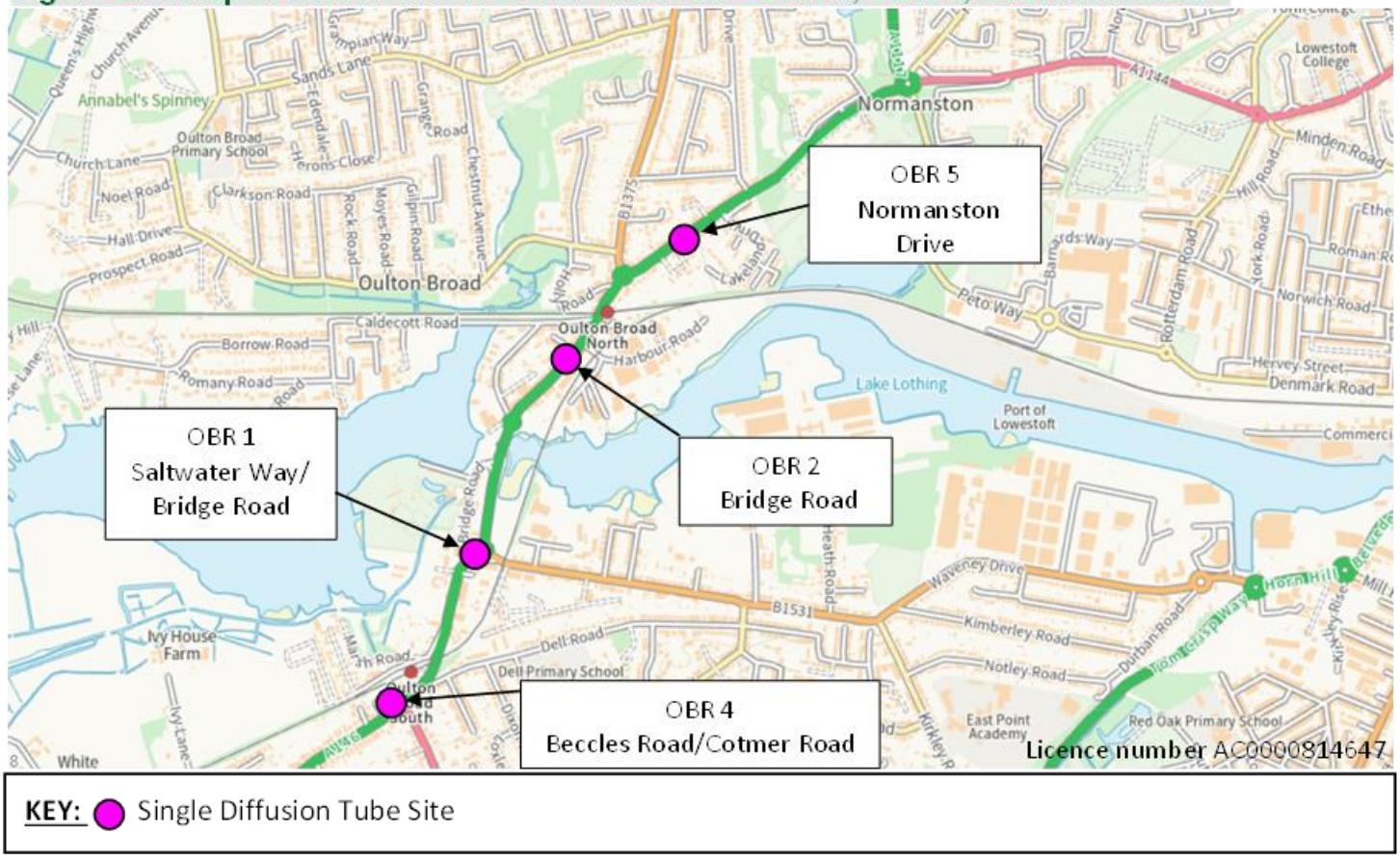


Figure D.5: Map of diffusion tubes: Beccles – BEC 1, BEC 3, BEC 4, BEC5ABC, BEC 7 and BEC 9

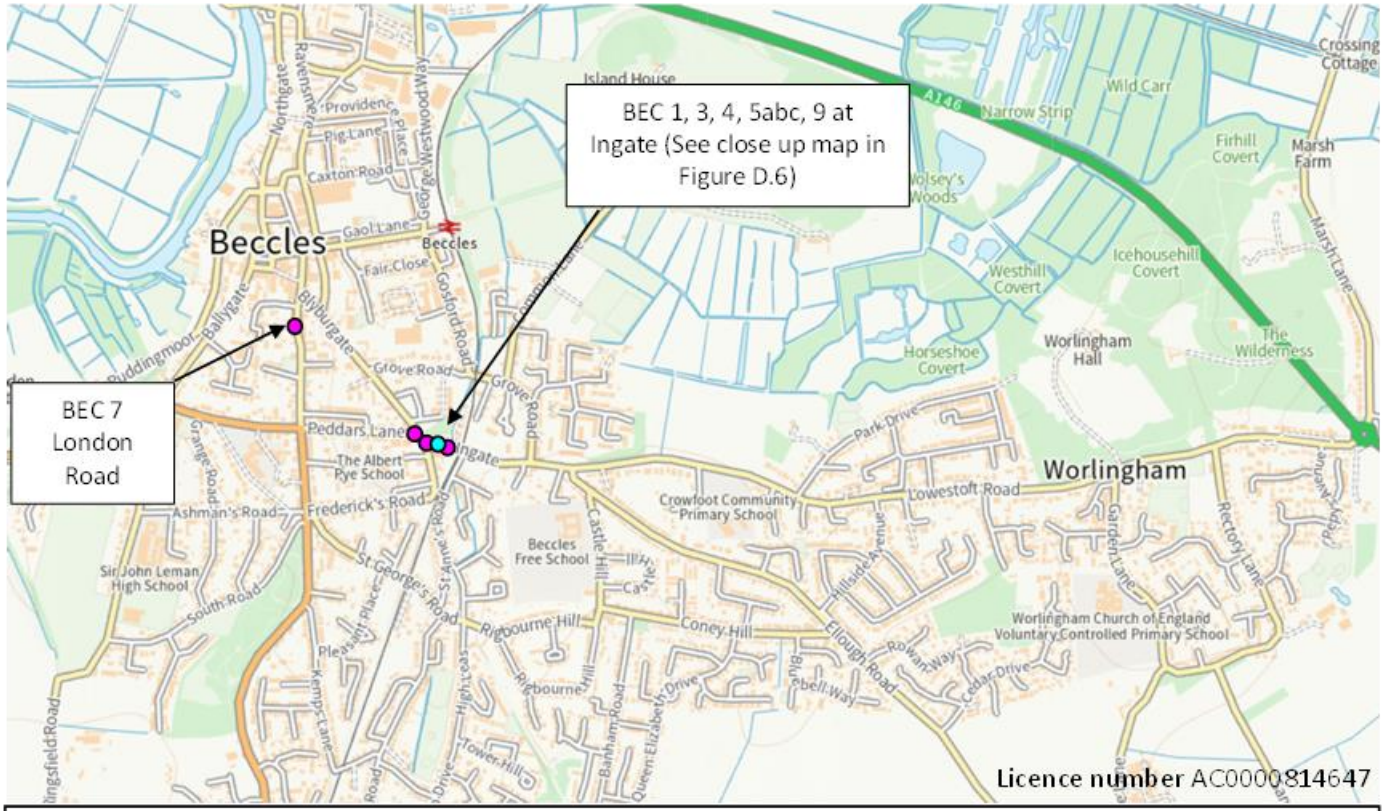


Figure D.6: Map of diffusion tubes: Beccles – BEC 1, BEC 3, BEC 4, BEC 5abc & BEC 9

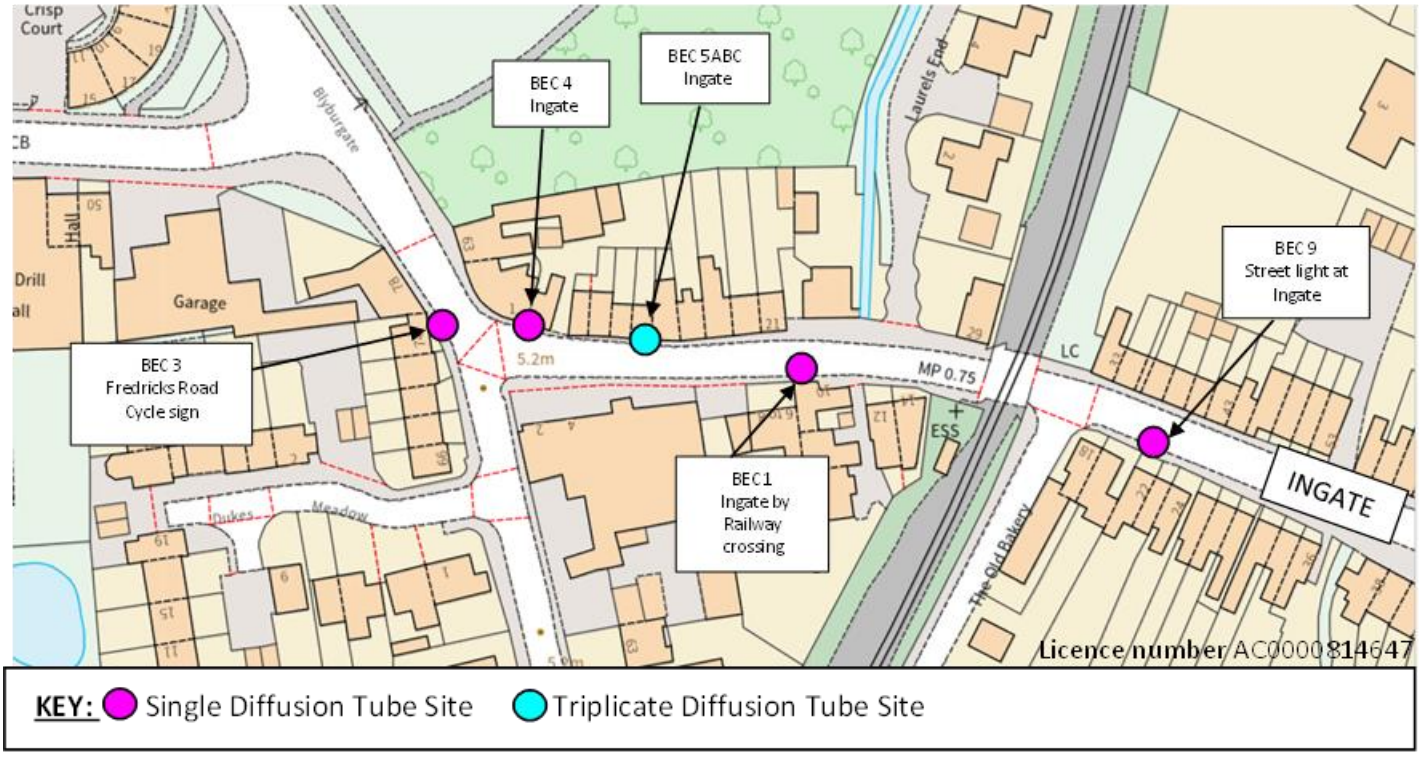


Figure D.7: Map of diffusion tubes: Bungay – BUN 1, BUN 3 AND BUN 4

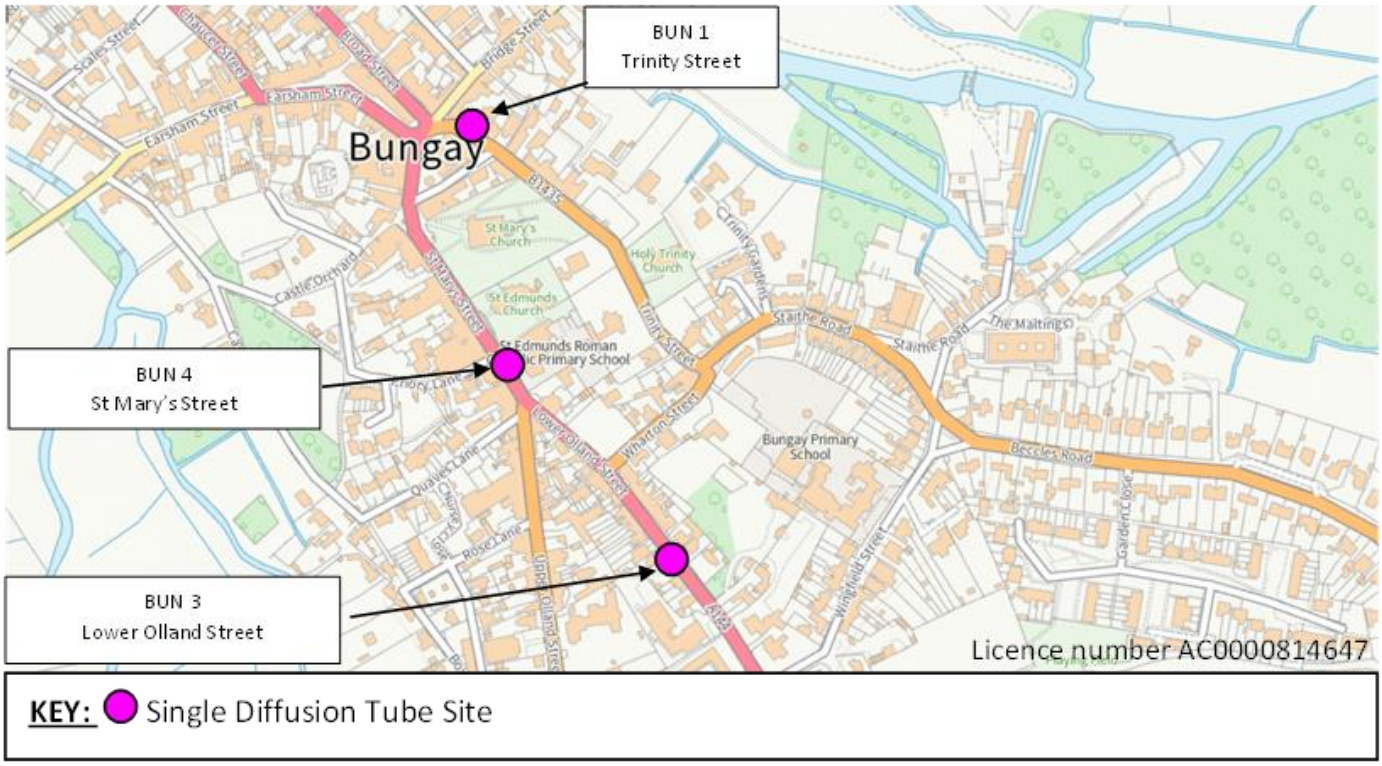


Figure D.8: Map of diffusion tubes: Halesworth– HLW 3

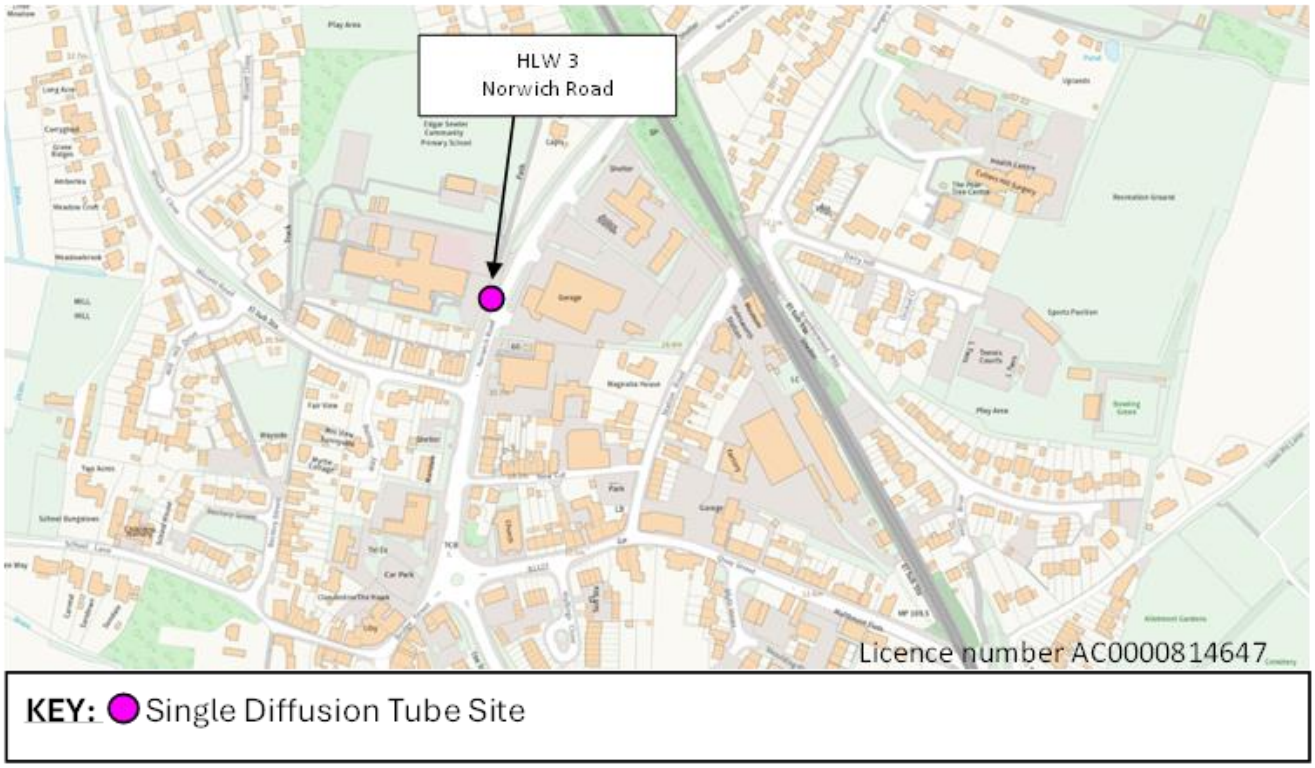


Figure D.9: Map of diffusion tubes: Ilkestshall St. Lawrence– ILK1

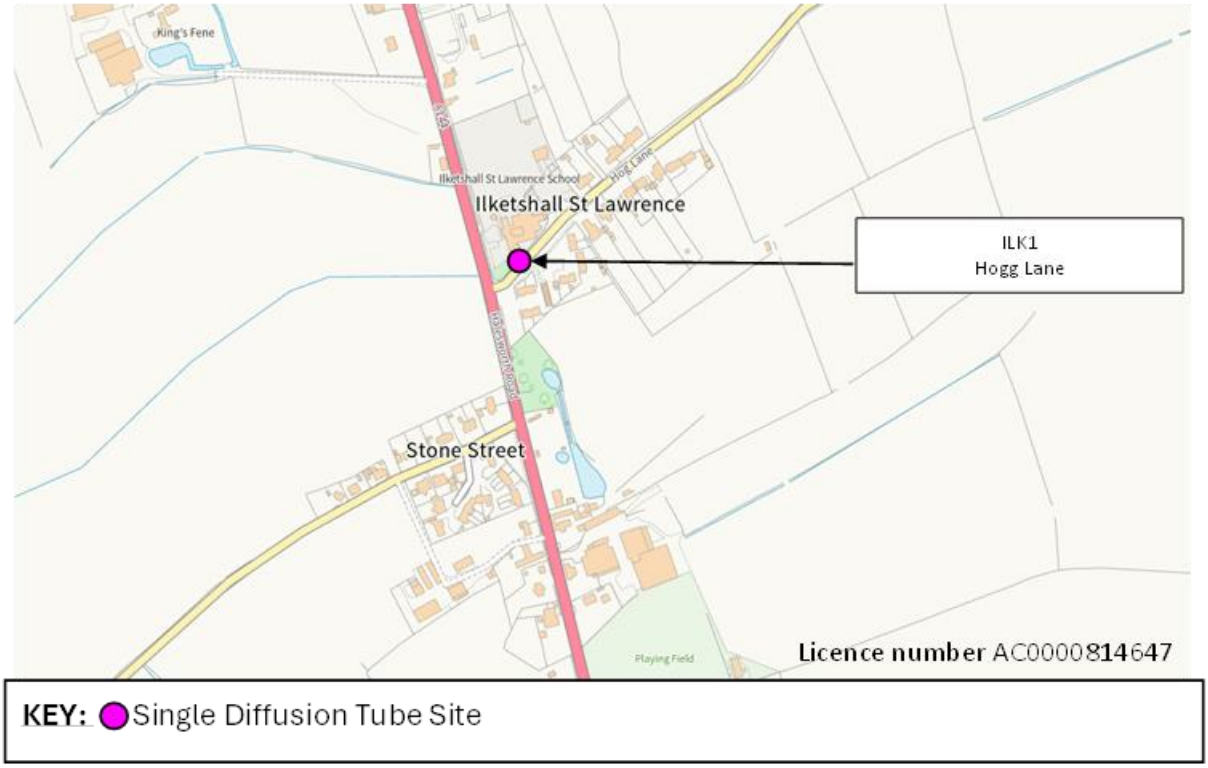


Figure D.10: Map of diffusion tubes: Blythburgh - BLY 1

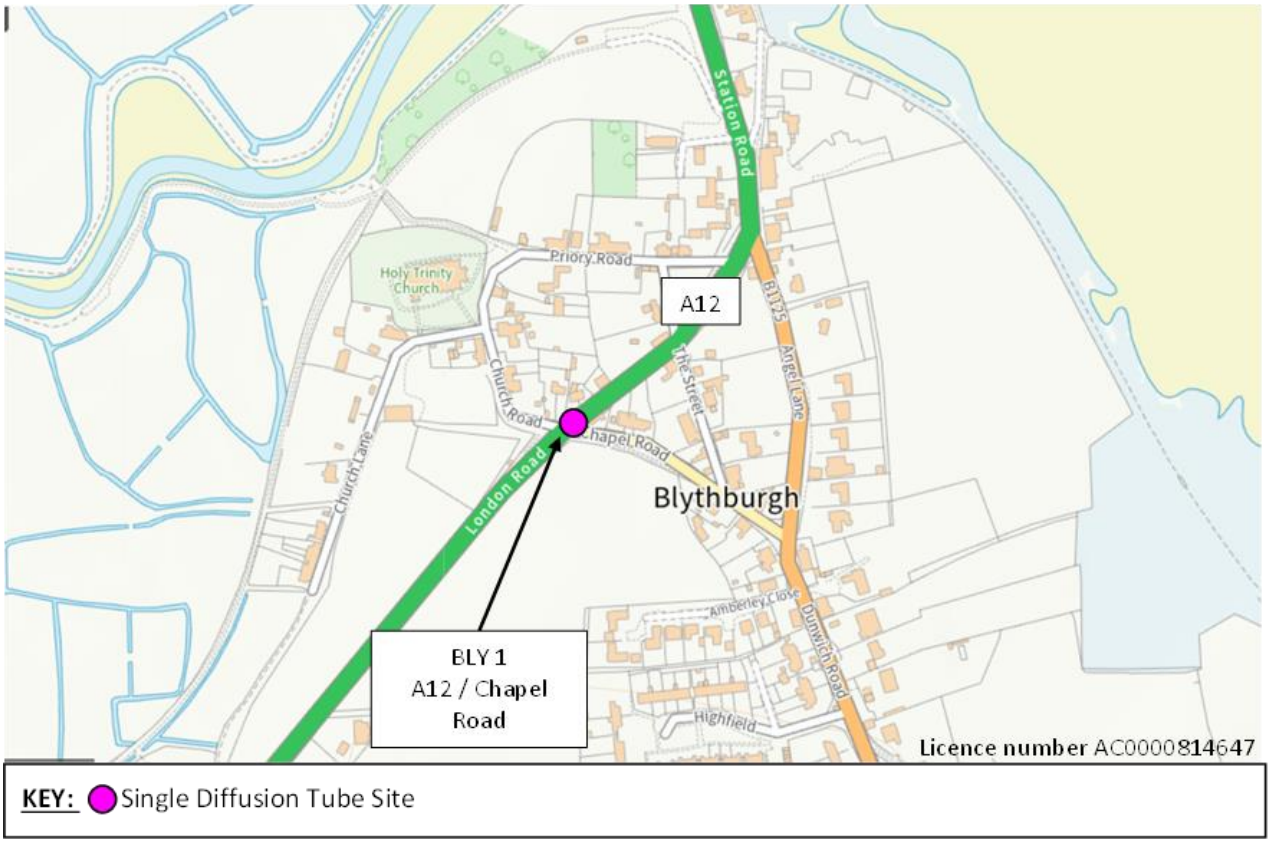


Figure D.11: Map of diffusion tubes: Felixstowe – FLX 12, FLX 14, FLX 20, FLX 21, FLX 22, FLX 24, FLX 26ABC , FLX 45 and FLX 46

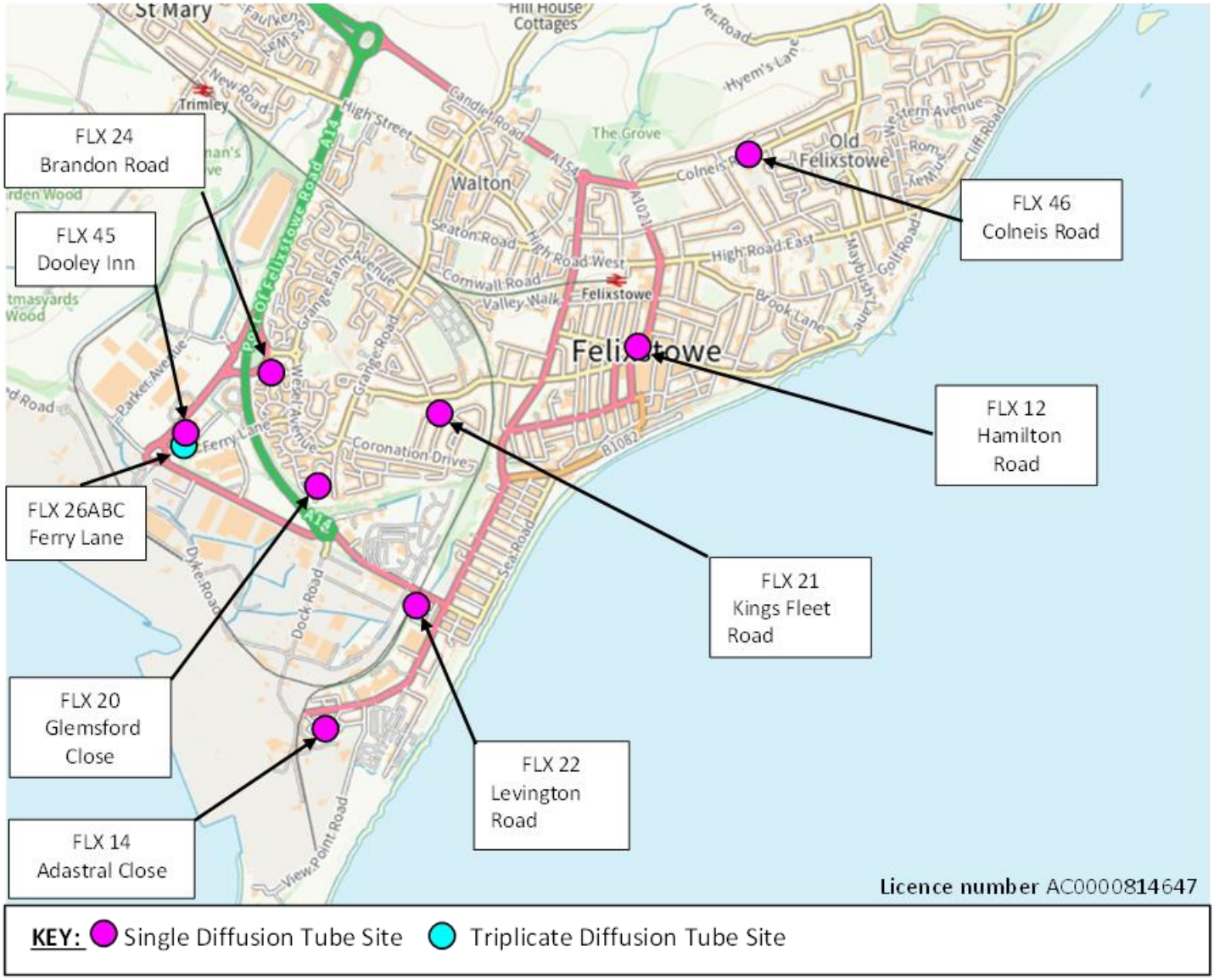


Figure D.12: Map of diffusion tubes: Felixstowe and Trimley St Mary – TRM 3, TRM 4, TRM 8, TRM 14, FLX 17, FLX 23 and FLX 39

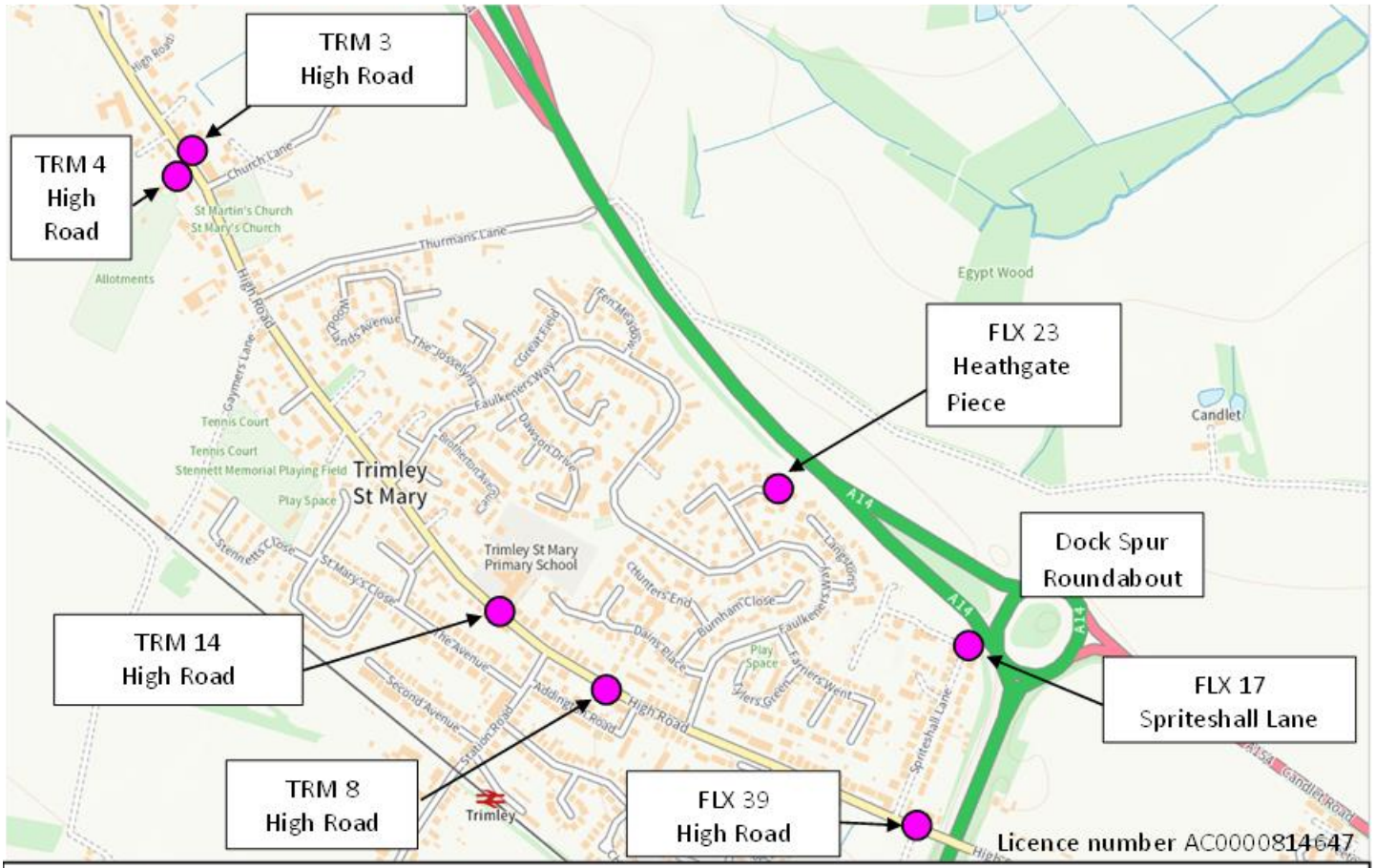


Figure D.13: Map of diffusion tubes: Felixstowe and Trimley St Mary – TRM 10, TRM 15 and FLX 39

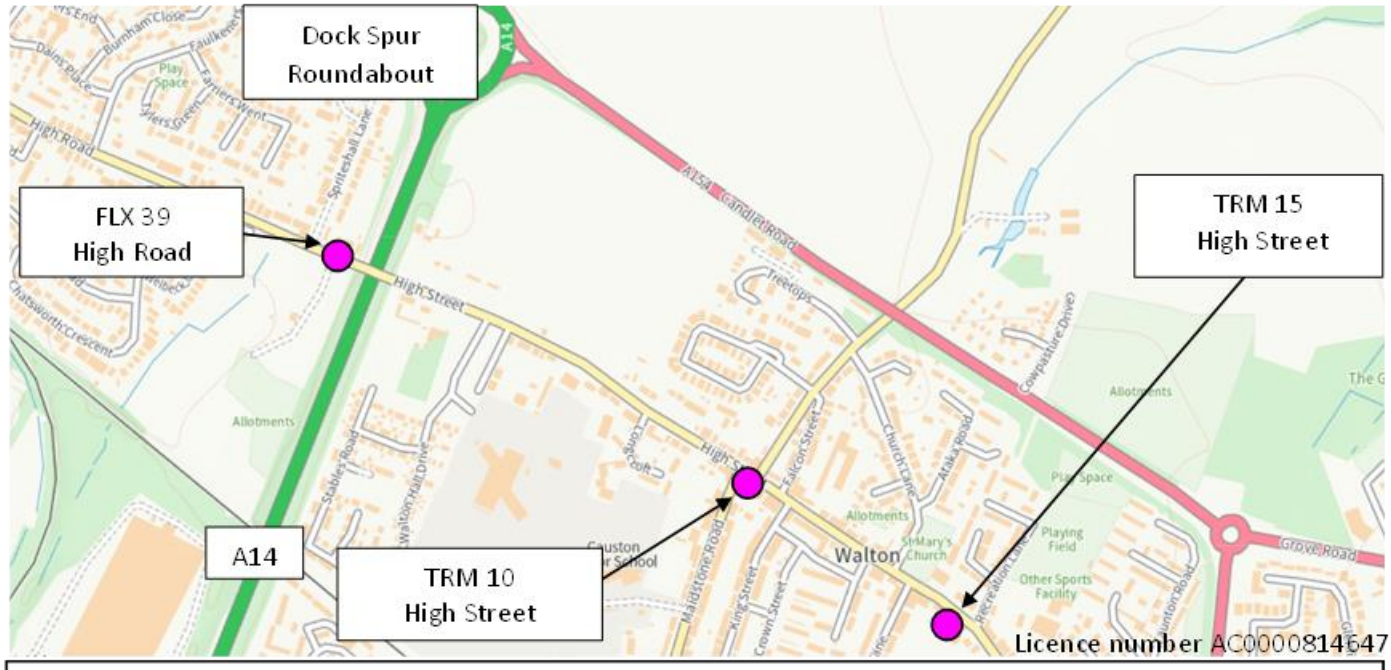


Figure D.14: Map of diffusion tubes: Kesgrave – KSG 9, KSG 10 and KSG 14.

Figure D.15: Map of diffusion tubes: Melton – MEL 5, MEL 7 and MEL 11

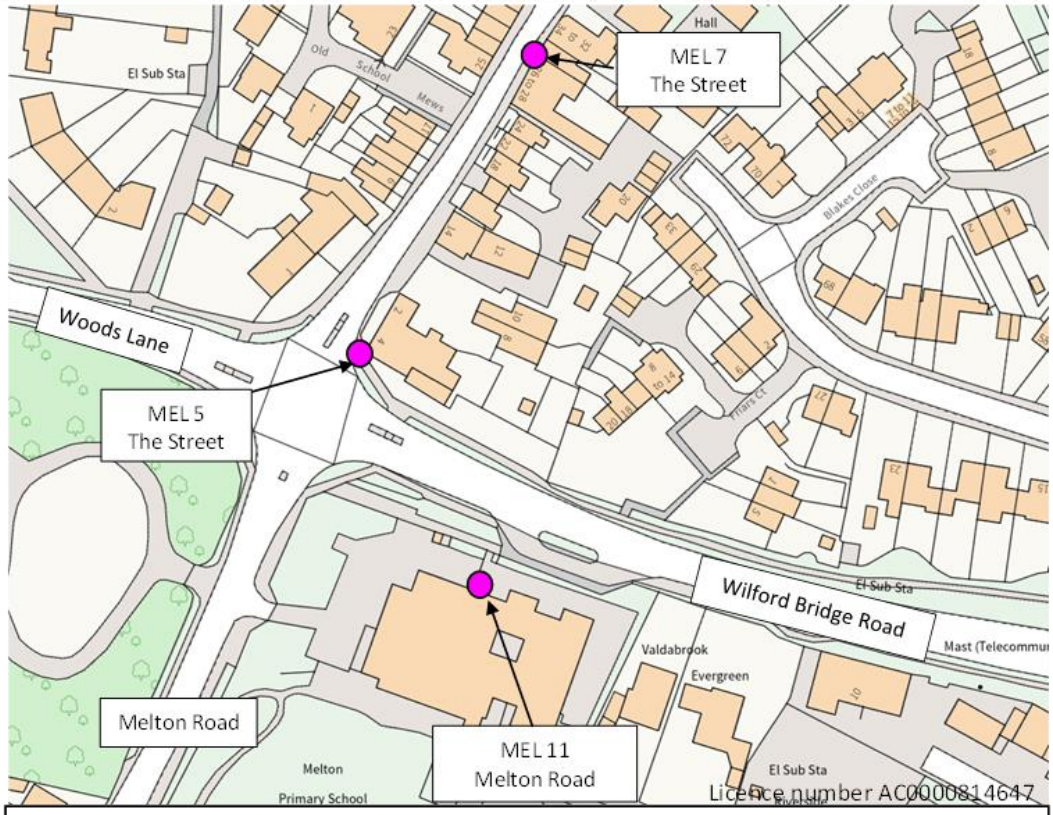


Figure D.16: Map of diffusion tubes: Martlesham– MRT 1 ABC

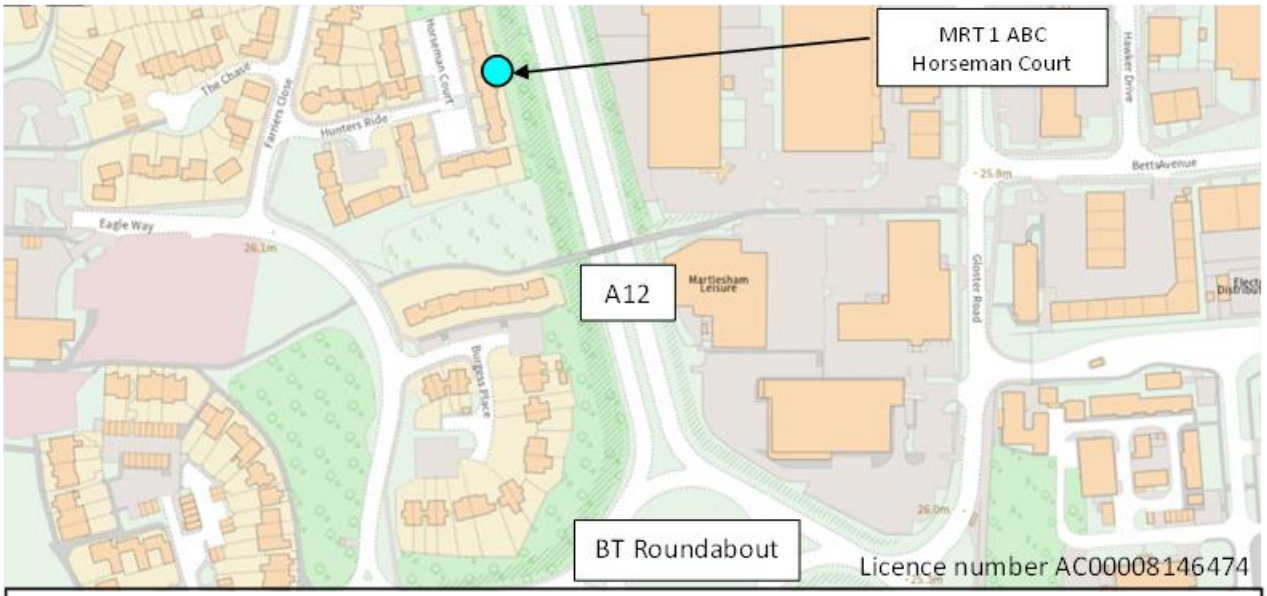


Figure D.17: Map of diffusion tubes: Martlesham– MRT 14

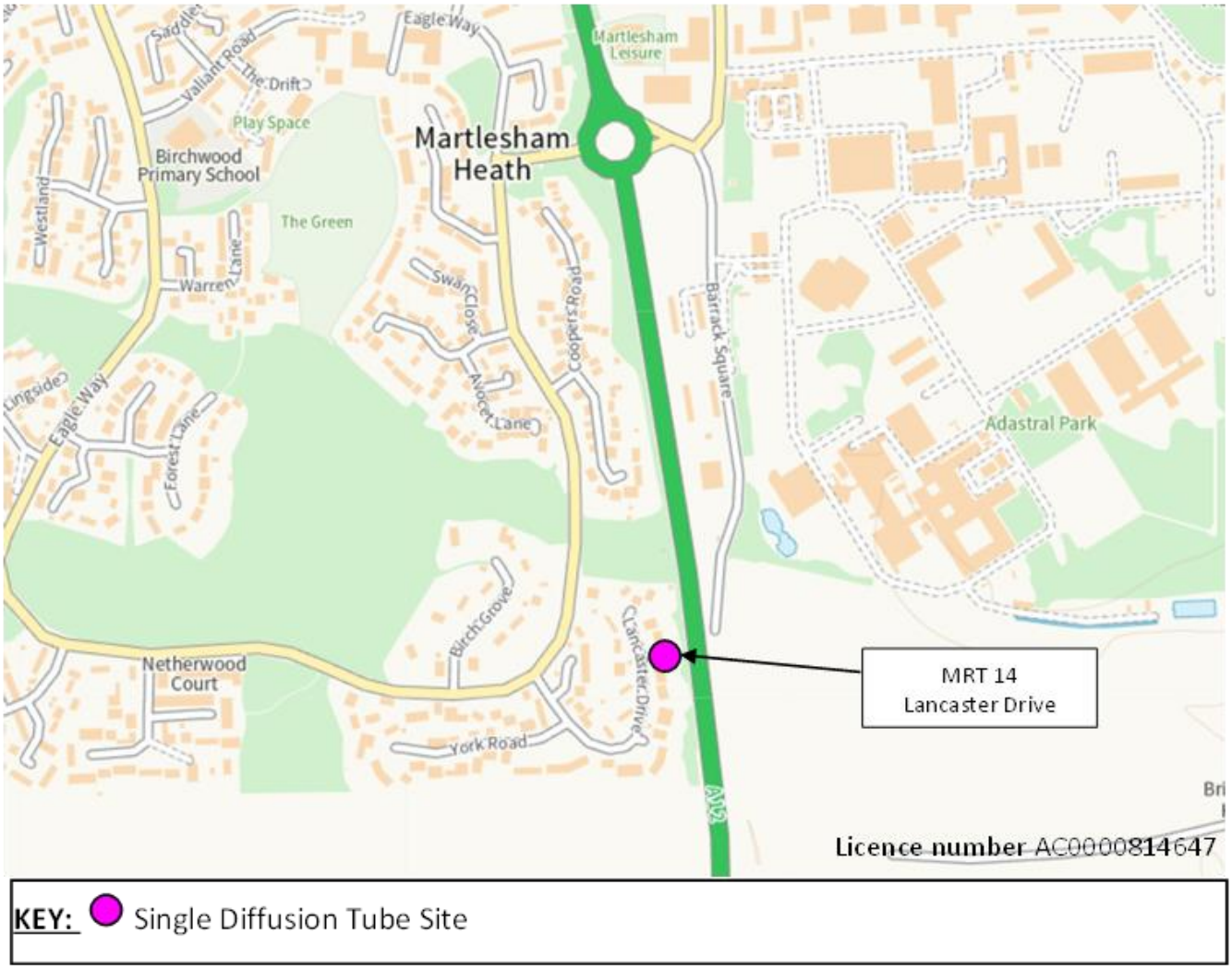


Figure D.18: Map of diffusion tubes: Farnham and Stratford and Little Glemham - FAR 1, FAR 2ABC, STA 1ABC, STA 2, STA 6, STA 7, STA 8ABC and LGM 2

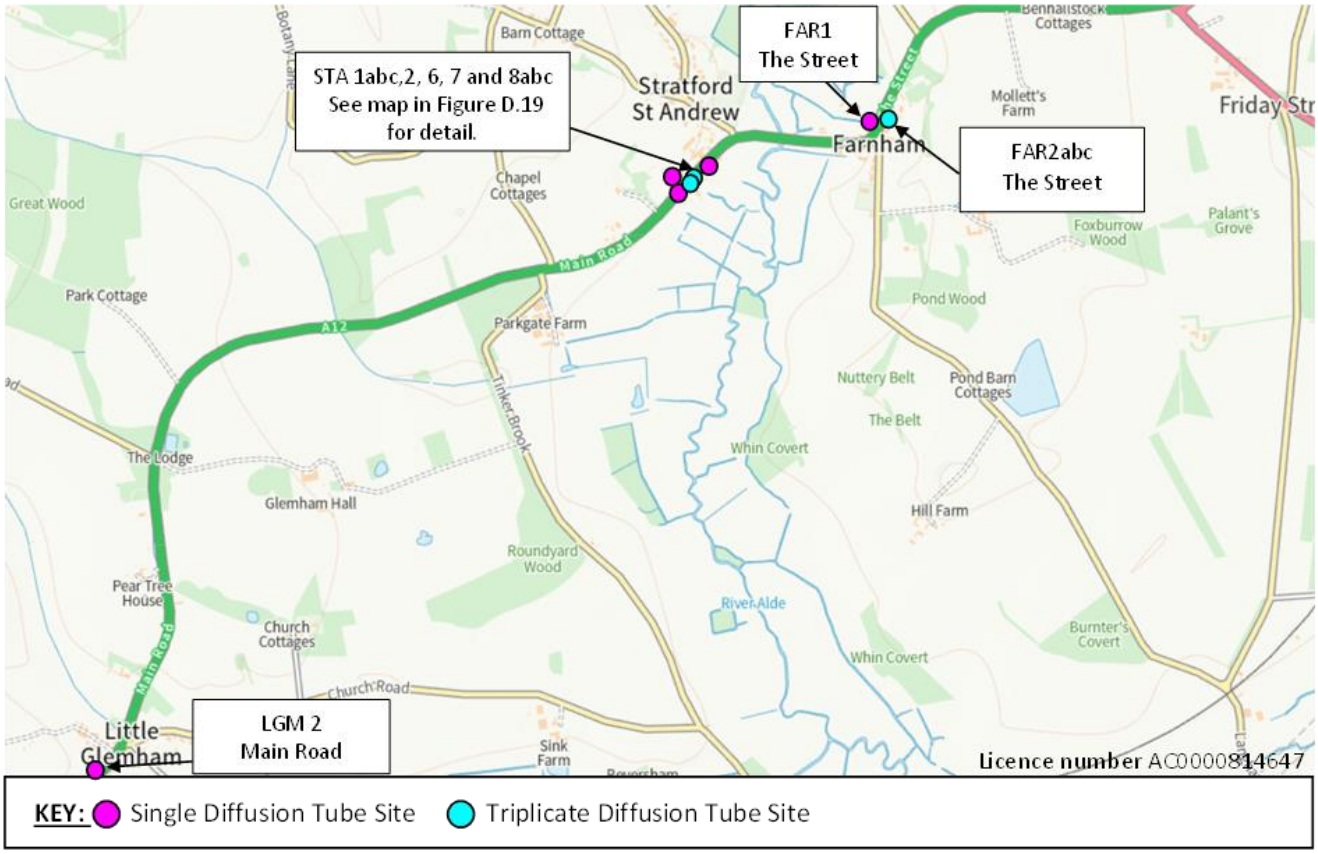


Figure D.19: Map of diffusion tubes and AQMA: Stratford St Andrew- STA 1ABC, STA 6, STA 7, and STA 8ABC

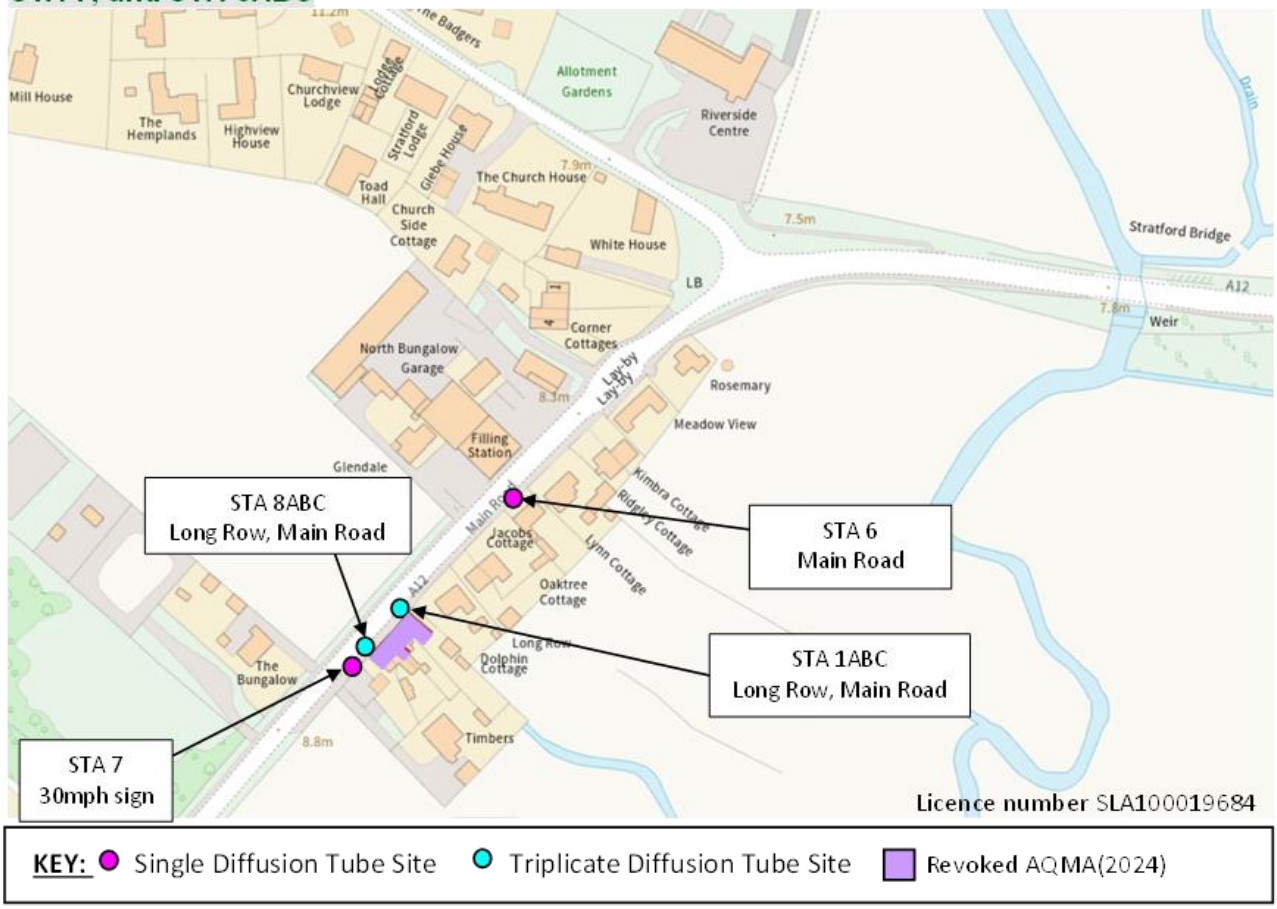
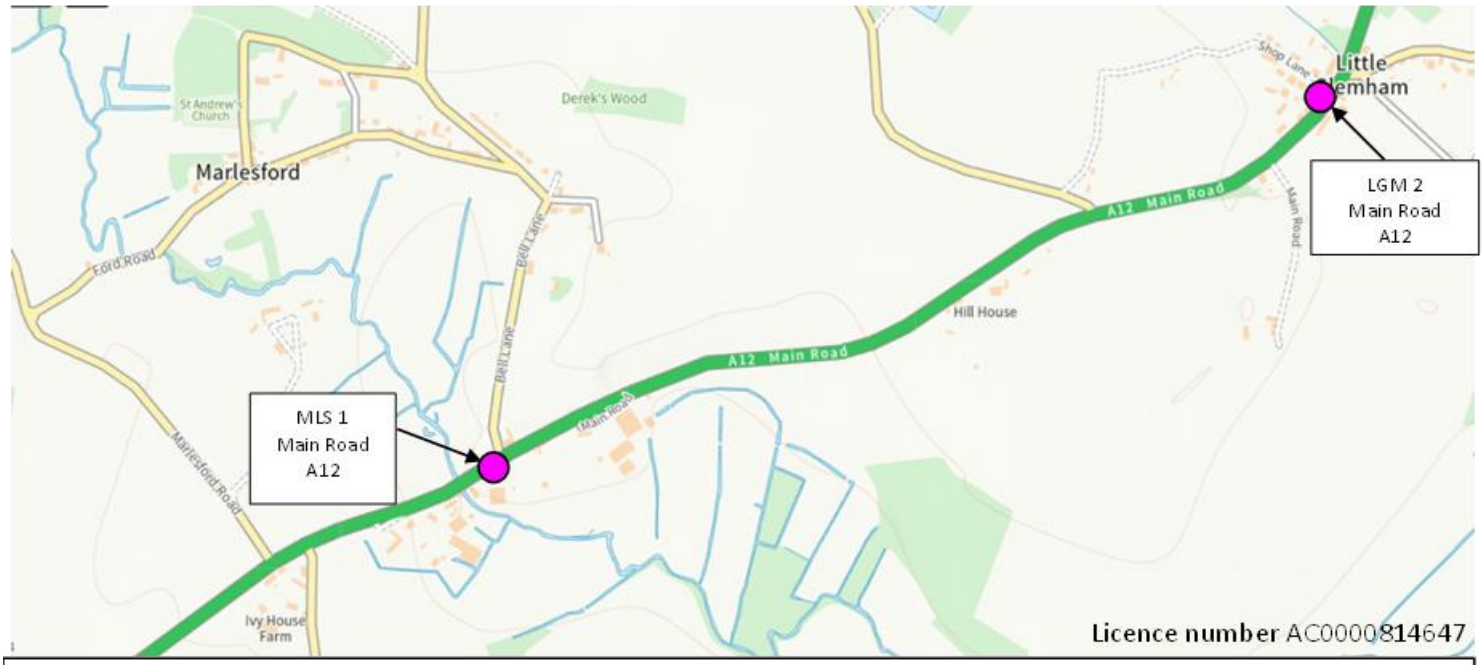
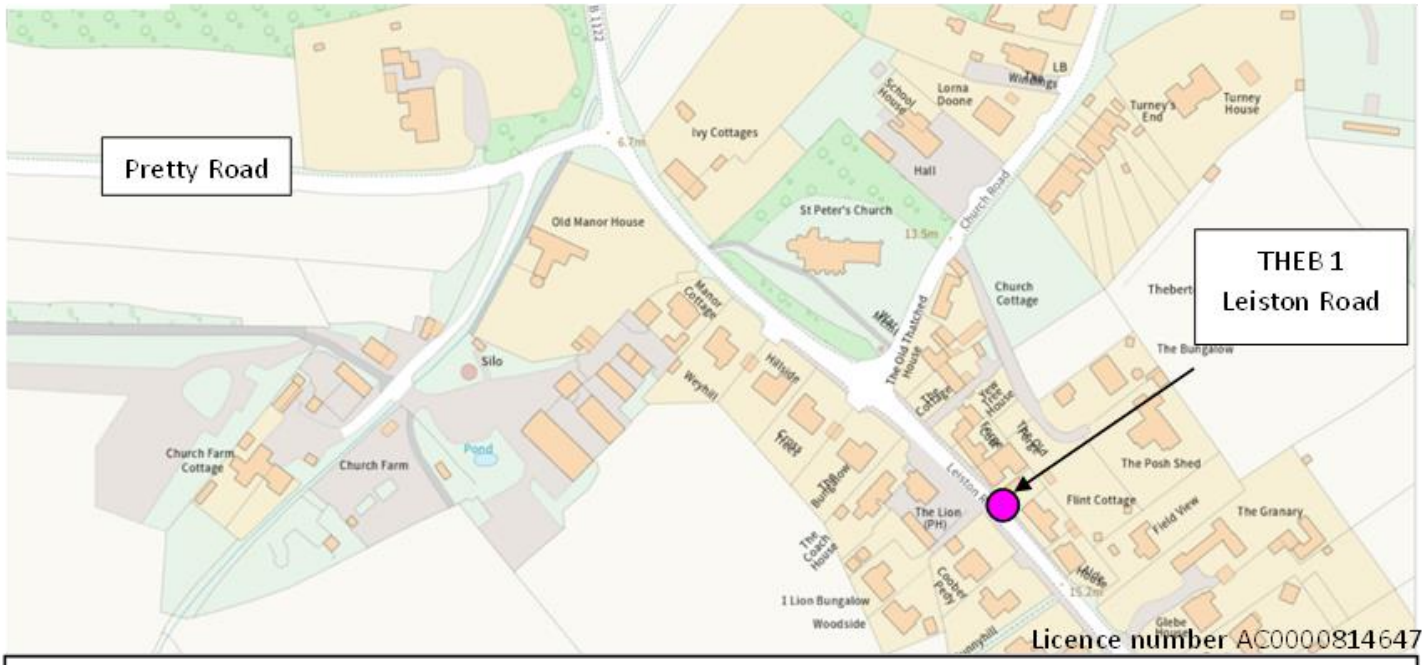


Figure D.20:Map of diffusion tubes: Little Glemham and Marlesford - LGM 2 and MLS 1



KEY: ● Single Diffusion Tube Site

Figure D.21: Map of diffusion tubes: Theberton – THEB 1



KEY: ● Single Diffusion Tube Site

Figure D.22: Map of diffusion tubes: Middleton - MID 1

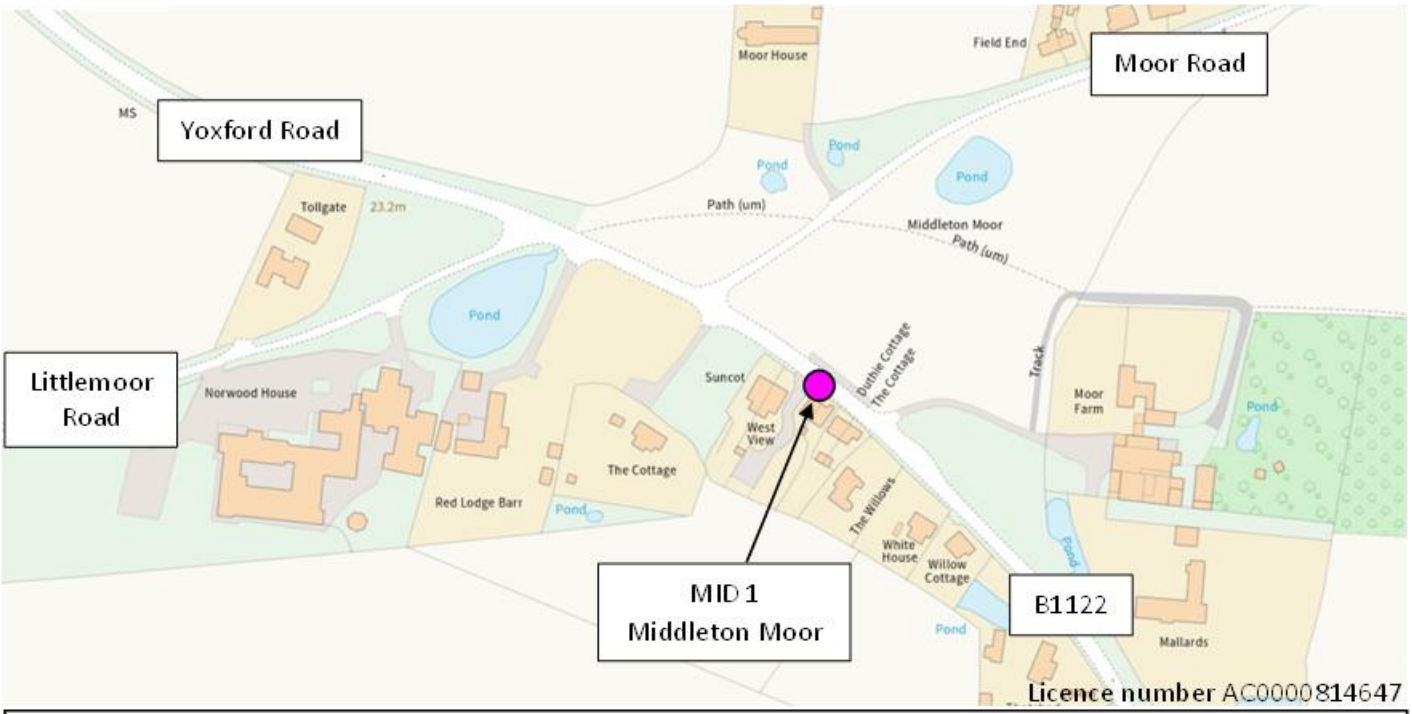


Figure D.23: Map of diffusion tubes: Yoxford – YOX 1 and YOX 2

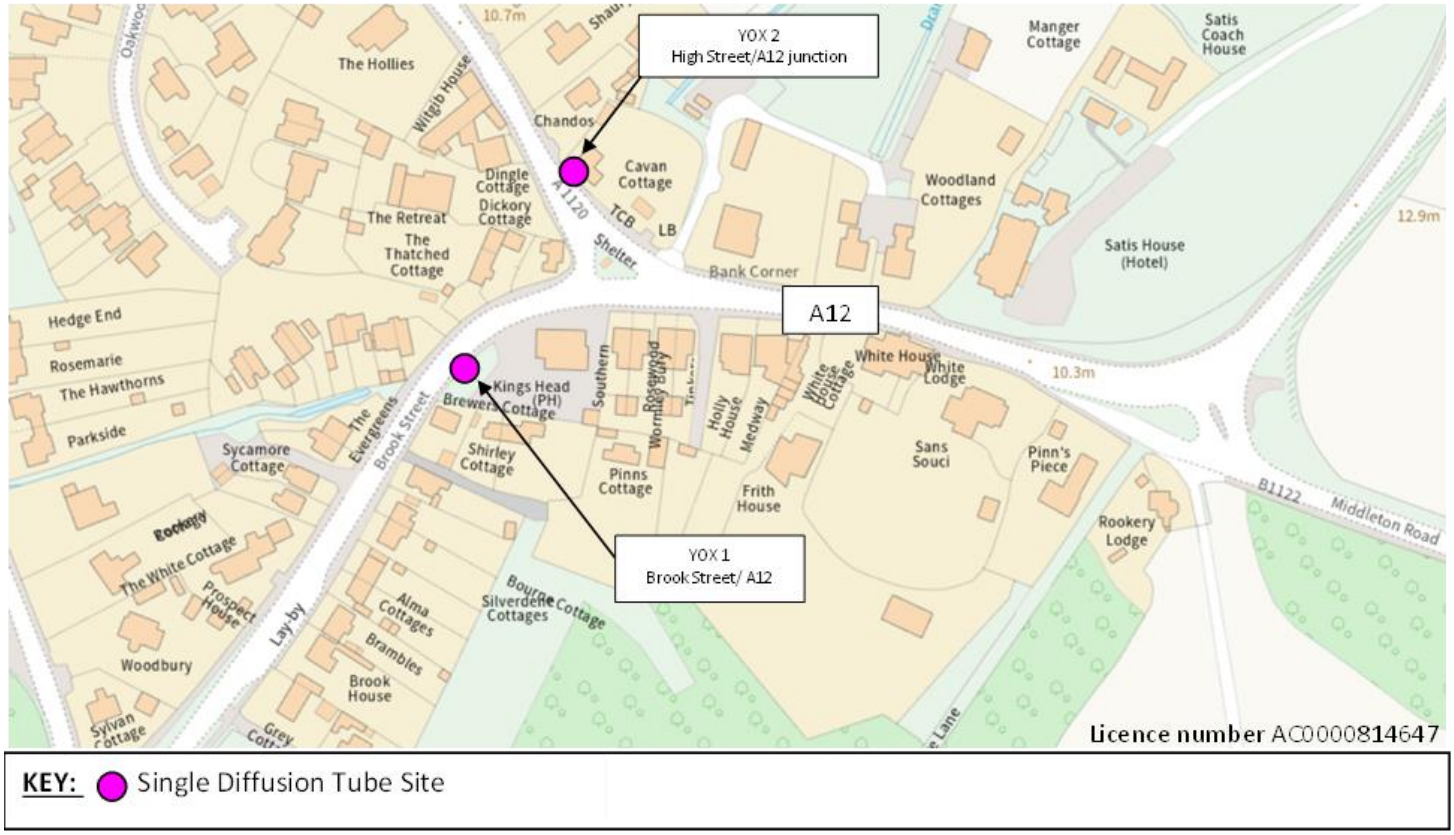


Figure D.24: Map of diffusion tubes: Saxmundham – SAX 1

Figure D.25: Map of diffusion tubes : Leiston – LEI 2, LEI 3, and LEI 4

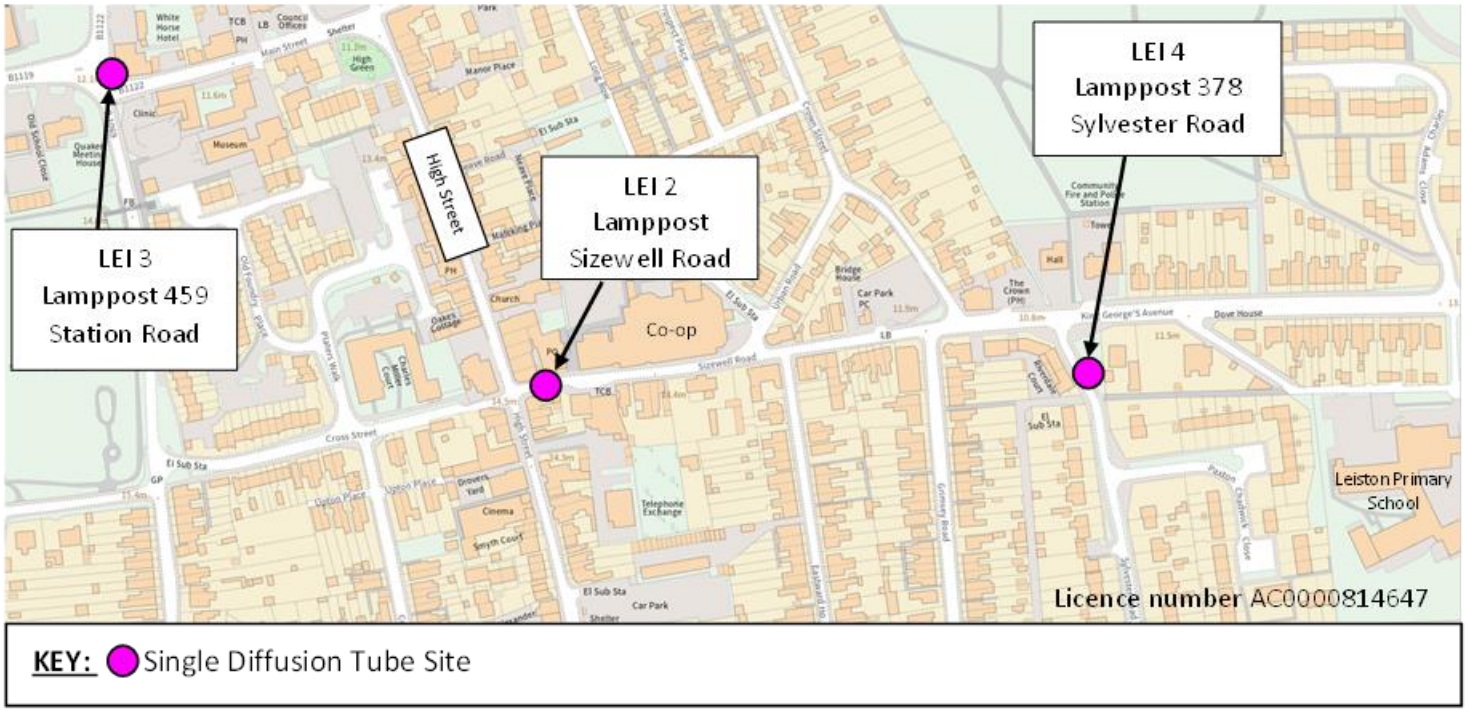


Figure D.26: Map of diffusion tubes: Tunstall – TUN 1

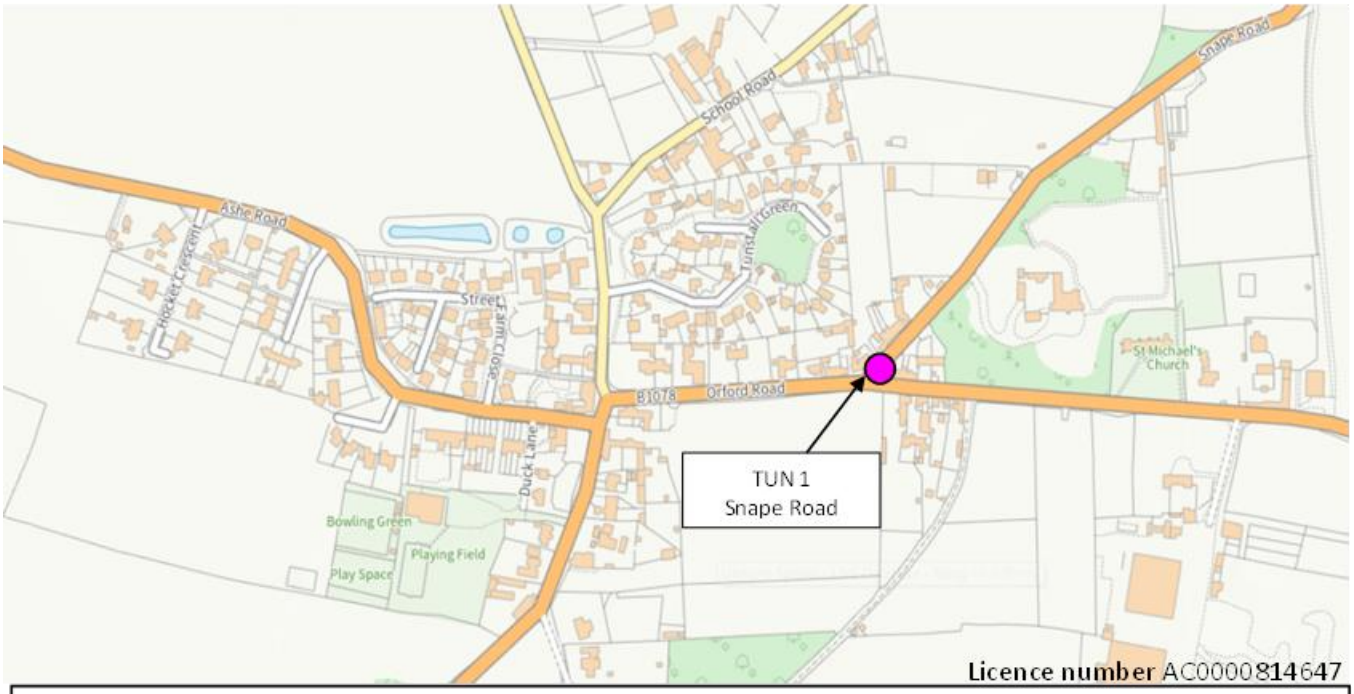


Figure D.27: Map of diffusion tubes: Wickham Market – WKM 1 and WKM 2

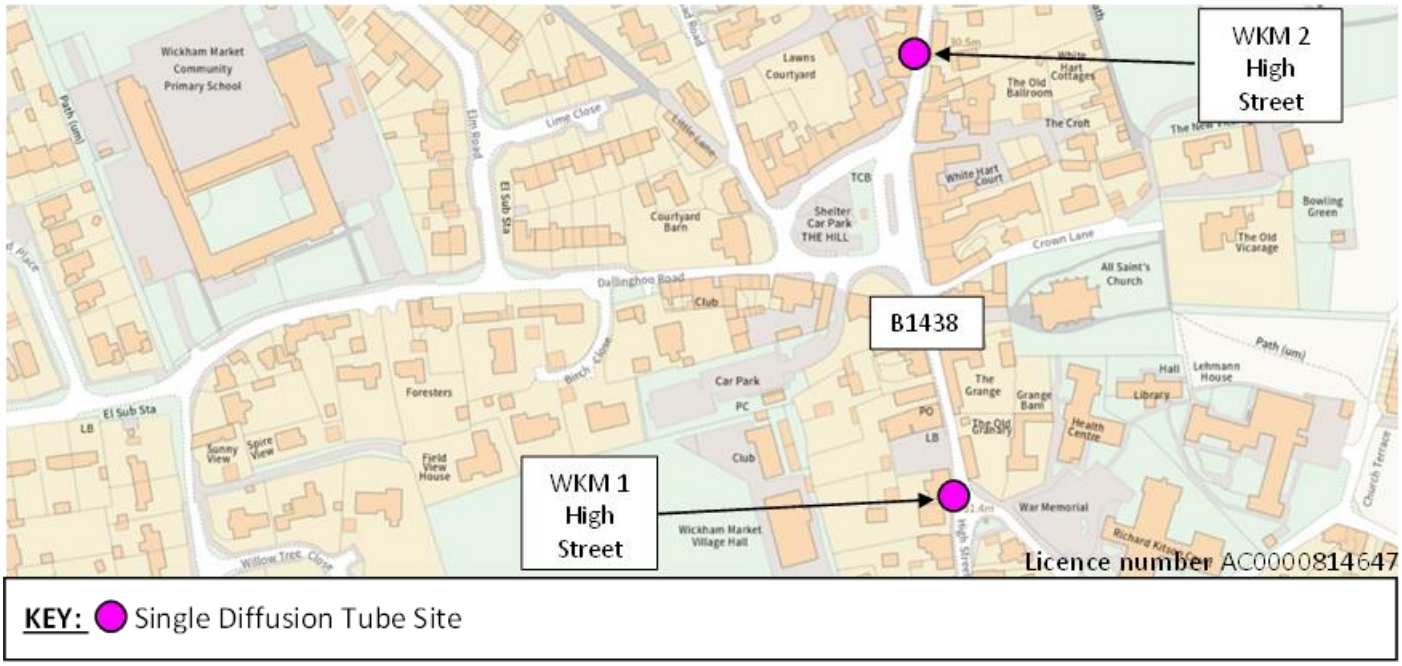


Figure D.28: Map of diffusion tubes: Knodishall – KNO1

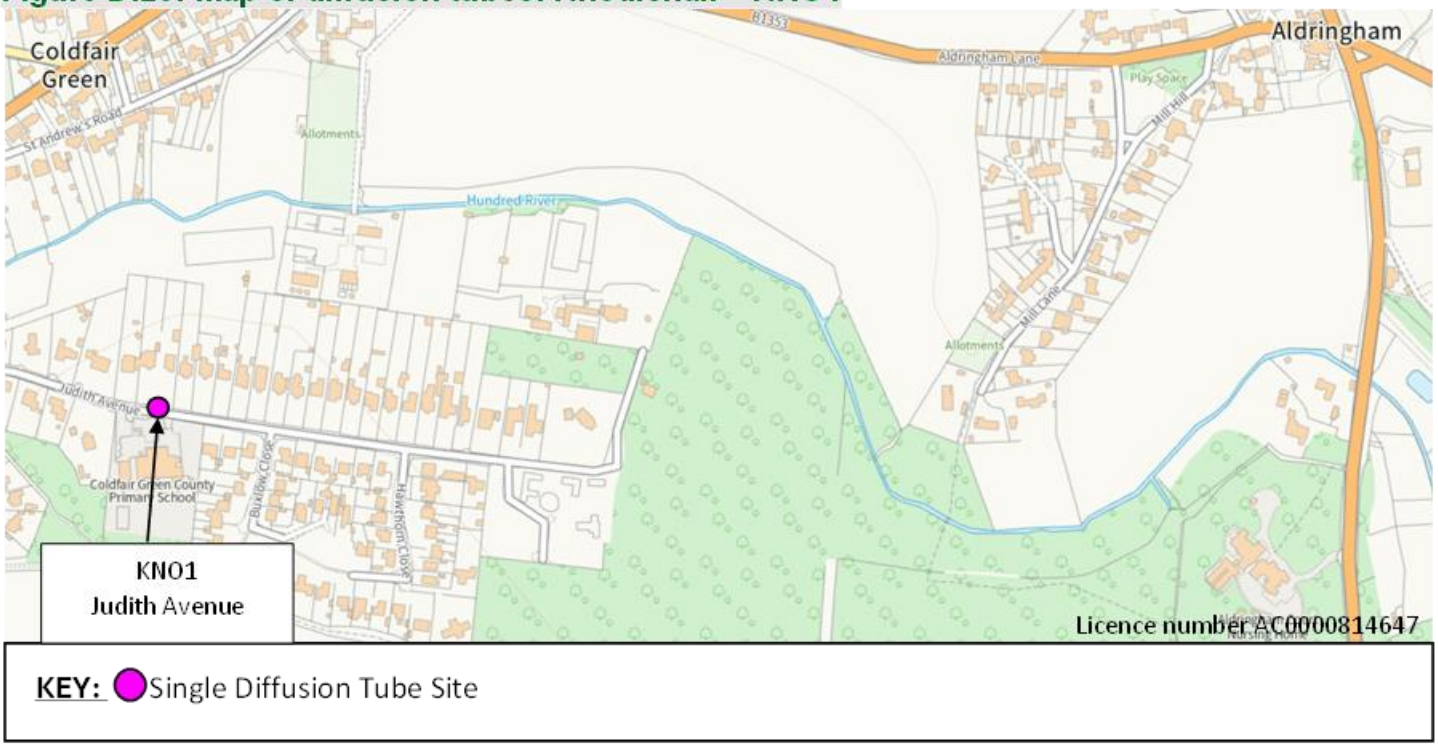


Figure D.29: Map of diffusion tubes and continuous NOx analyser: Woodbridge – WBG 1ABC, WBG 3,WBG 5, WBG 8, WBG 10, WBG 12, WBG 13, WBG 18, WBG 20, WBG 24, WBG 25, WBG 27, WBG 28 and WBG 29.

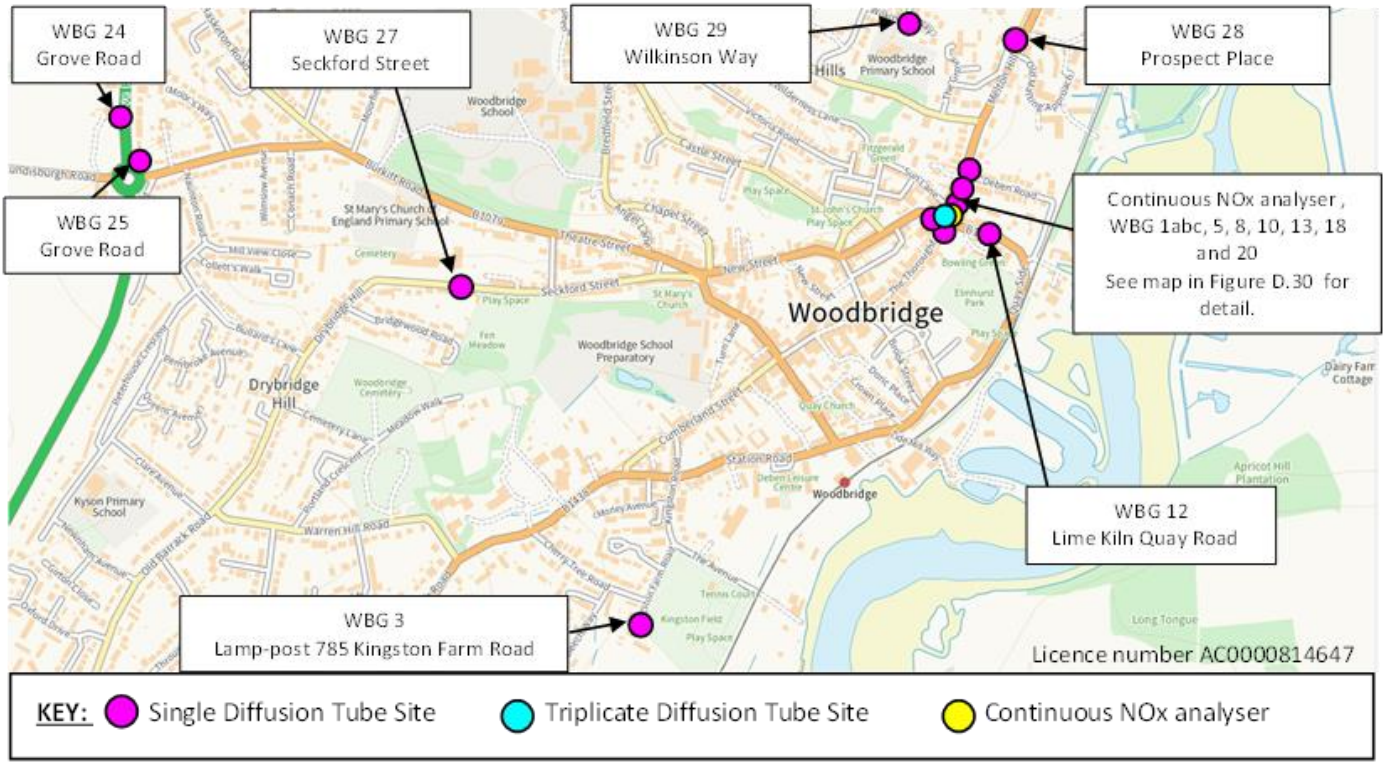


Figure D.30: Map of diffusion tubes, continuous NOx analyser and revoked AQMA : Woodbridge – WBG 1ABC,WBG 5, WBG 8, WBG 10, WBG 12, WBG 13, WBG 18, and WBG 20

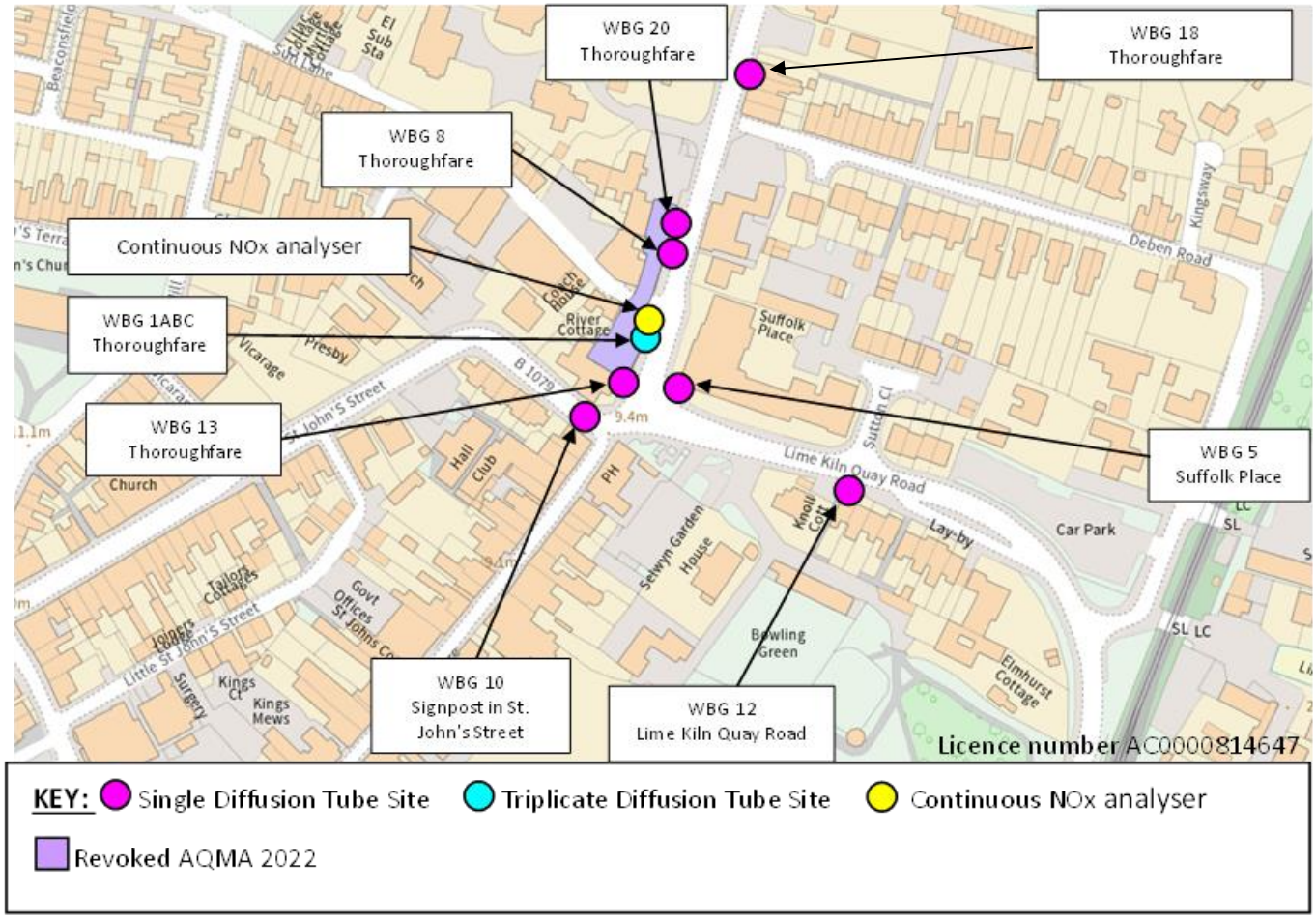


Figure D.31: Map showing Defra Automatic Urban and Rural Network (AURN) continuous monitoring site located at Sibton – measuring PM_{10} and $PM_{2.5}$

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[2]

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO_2)	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	40µg/m^3	Annual mean
Particulate Matter (PM_{10})	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	40µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO_2)	125µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO_2)	266µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

[2] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

Appendix F: Copy of The Suffolk Coastal District Council Air Quality Management Area Order No. 3 Revocation Assessment

Revocation Assessment Report for The Suffolk Coastal District Council Air Quality Management Area Order No. 3, located at Stratford St. Andrew

August 2024

The Suffolk Coastal District Council Air Quality Management Area Order No. 3 Revocation Assessment

Introduction

This screening assessment sets out the evidence relied upon by East Suffolk Council ("the Council") as it seeks to revoke the Suffolk Coastal District Council Air Quality Management Area (AQMA) Order No. 3 (located at Stratford St Andrew, and declared prior to the Council's merger). Consideration will be given to:

- The monitoring data obtained over a number of years within the AQMA;
- The projected roadside NO_2 concentration;
- Local and national trends in NO_2 emissions; and
- Local and regional factors that may impact on the AQMA.

Part IV of the Environment Act 1995 (as amended 2021) requires Local Authorities to review air quality in its area and assess whether national objective levels will be achieved. Where it has been shown that the objectives will not be achieved Local Authorities must declare an AQMA and put an Air Quality Action Plan in place to bring air quality within acceptable levels.

Where it can be subsequently demonstrated that air quality objectives are being and will continue to be met a Local Authority can revoke an AQMA by Order under the Environment Act 1995 (as amended 2021).

The Suffolk Coastal District Council AQMA Order No. 3 was declared in 2014 following exceedance of the annual mean nitrogen dioxide (NO_2) national objective linked to emissions from road traffic. Since that time, monitoring has shown a continued reduction in pollutant values and levels have now been consistently below the national objectives for a number of years.

National, regional and local policies have influenced the reduction in polluting emissions within the AQMA and it is reasonable to expect that further reductions will be achieved through the increasing use of ultra-low and zero emission vehicles.

Having considered the historical monitoring data at sites within Stratford St Andrew, national trends in emissions and any likely impacts on the air quality within the AQMA the Council is satisfied that the AQMA can be revoked.

Review & Assessment

Part IV of the Environment Act 1995 (as amended 2021) (the Act) introduced the Local Air Quality Management regime that places a legal duty on local authorities to regularly review and assess air quality in their areas against Air Quality Standards (AQS) objectives. The AQS objectives for England are set out in the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002 and are shown in Table E.1 of the East Suffolk 2024 Annual Status Report (ASR).

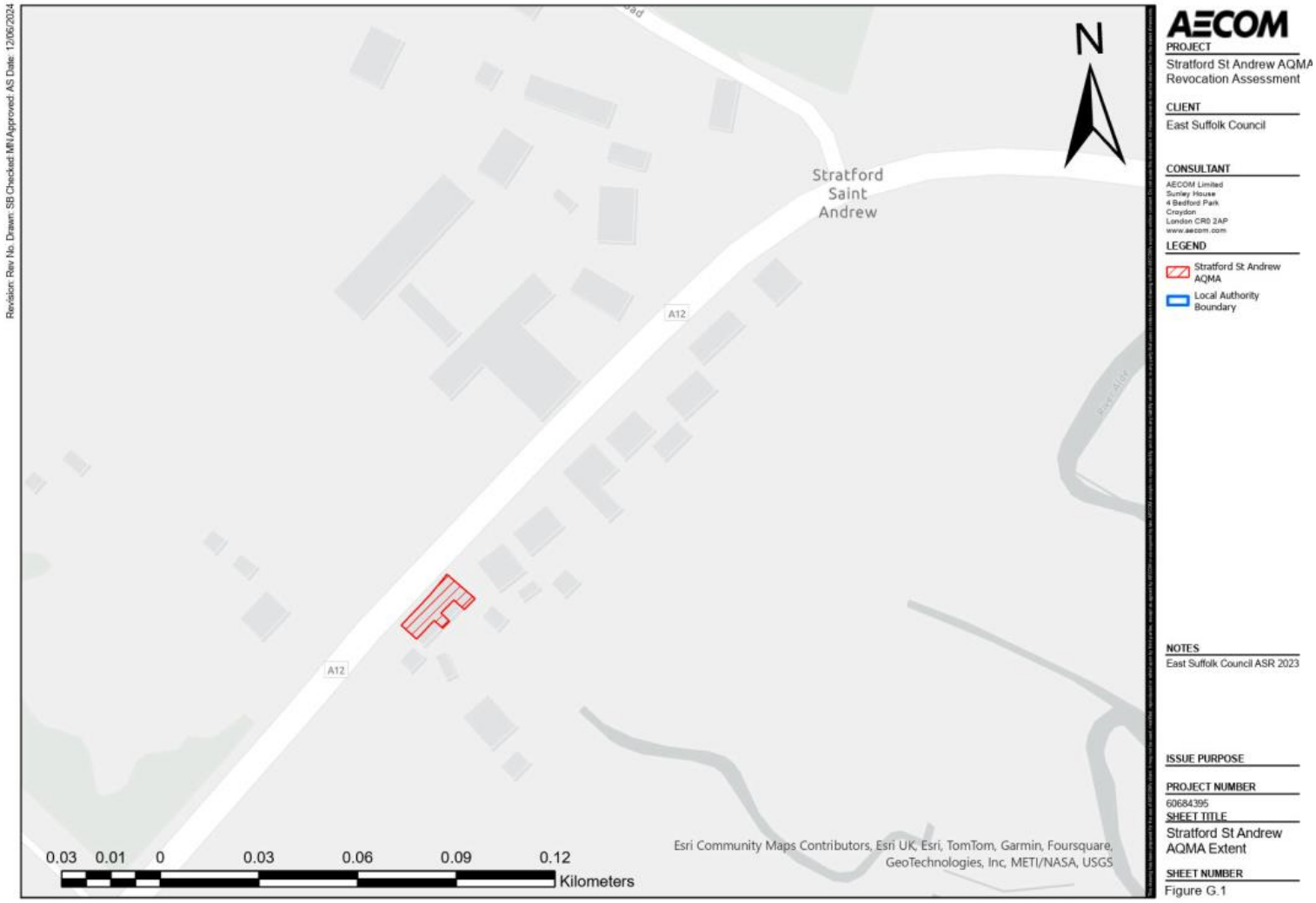
Local authorities must declare an AQMA where any of the AQS objectives are exceeded and subsequently set out the measures they intend to put in place to secure compliance with the AQS objectives under an Air Quality Action Plan (AQAP). With effective implementation of the Action Plan and national policies aimed at reducing the emission of pollutants it is expected that the air quality within AQMAs should improve to a point that concentrations will remain below the AQS objectives. Revocation of an AQMA can be formally declared by Order under section 83 of the Environment Act.

Each year an ASR must be prepared by local authorities detailing the strategies employed to improve air quality and any progress that has been made. Comments made by Defra in relation to the 2023 ASR support the Council's plans to revoke the Suffolk Coastal District Council AQMA Order No. 3, due to continual compliance with the NO_2 annual mean AQS objective.

Suffolk Coastal District Council AQMA Order No. 3

The Suffolk Coastal District Council AQMA Order No. 3 (located in Stratford St Andrew) was declared in 2014 to address traffic related NO_2 concentrations in excess of the annual mean AQS objective. The AQMA encompasses four properties situated within 1-5 Long Row, Main Road, in Stratford St Andrew, Suffolk. The extent of the AQMA, as declared under the original order, is demonstrated in Figure 1 .

Figure 1 - Suffolk Coastal District Council AQMA Order No. 3 Extent



Revoking an AQMA: The Legal Framework & Guidance

The Environment Act 1995 (as amended 2021)

Section 83 (2b) of the Environment Act (1995) states that an AQMA:

"…..may, as a result of a subsequent air quality review, be revoked by such an order, if it appears on that subsequent air quality review that the air quality standards and objectives are being achieved, and are likely throughout the relevant period to be achieved, within the designated area".

Statutory Guidance

Guidance on the requirements for revoking an AQMA are set out in statutory guidance LAQM PG 22 and LAQM TG 22.

PG 22 states that:

- *"Authorities wishing to revoke or reduce an AQMA can do so following review. For revocation this should demonstrate that air quality objectives are being met and will continue to do so. In other words they should have confidence that the improvements will be sustained. Further information is provided in the Technical Guidance, but typically this is after three years or more compliance. It is not advisable for the revocation of an AQMA to be based solely upon compliance in a year not representative of long-term trends. For example, compliance being reached in 2020 may not be representative of long-term trends in pollutant concentrations due to the change in activity observed across the UK as a result of COVID-19. Where 2020 is one of many consecutive years of compliance, this may be considered for revocation. If authorities wish to make any changes to AQMAs, whether declaration, amendment or revocation, based upon 2020 data, please contact the LAQM helpdesk to discuss your approach.*
- *Where an Order is revised, a copy of the revocation or amendment Order should be submitted to Defra via the LAQM portal and other statutory consultees and made publicly available to ensure the public and local businesses are aware of the situation. It is expected that the local authority will take the relevant action imposed by the Order within four months following receipt of comments from Defra.*
- *Following a revocation, from 2023 (where this would result in that local authority no longer having any AQMA) the local authority should put in place a local air quality*

strategy (paragraph 2.15) to ensure air quality remains a high profile issue and to ensure it is able to respond quickly should there be any deterioration in condition."

TG 22 goes on to state that:

- *"In most cases the decision to amend or revoke an AQMA should only be taken following a detailed study, to be appended to the ASR/APR as additional supporting technical information. A modelling study may allow compliance to be assessed over a wider geographical area than when compared to monitoring alone. This should set out in detail all the available information used to reach the decision, with the same degree of confidence as was provided for the original declaration. If the conclusions of the study are suitably robust to allow an assessment of compliance to be determined, either an amendment or revocation can be taken forward. Due to the inherent uncertainties of dispersion modelling, consideration should be given to predicted concentrations being 10% below the relevant objective before an amendment or revocation of an AQMA is completed.*
- *It is not advisable for the revocation of an AQMA to be based solely upon compliance in a year not representative of long-term trends. For example, compliance being reached in 2020 may not be representative of long-term trends in pollutant concentrations due to the change in activity observed across the UK as a result of COVID-19 and associated lock down measures. Where 2020 is one of many consecutive years of compliance, this may be considered for revocation.*
- *However, in some instances if compelling evidence exists, detailed modelling to support the decision to amend/revoke an AQMA may not be necessary and an AQMA may be amended or revoked following a screening assessment or on the basis of robust monitoring evidence.*
- *However, pollutant concentrations may vary significantly from one year to the next, due to the influence of meteorological conditions, and it is important that authorities avoid cycling between declaring, revoking and declaring again, due simply to these variations. Therefore, before revoking an AQMA on the basis of measured pollutant concentrations, the authority therefore needs to be reasonably certain that any future exceedances (that might occur in more adverse meteorological conditions) are unlikely. For this reason, it is expected that authorities will need to consider measurements carried out over several years or more, national trends in emissions, as well as local factors that may affect the*

AQMA, including measures introduced as part of an Air Quality Action Plan, together with information from national monitoring on high and low pollution years.

- *The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO_2 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 be considered following three consecutive years of annual mean NO_2 concentrations being lower than 36 µg/m^3 (i.e. within 10% of the annual mean NO_2 objective). There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period."*

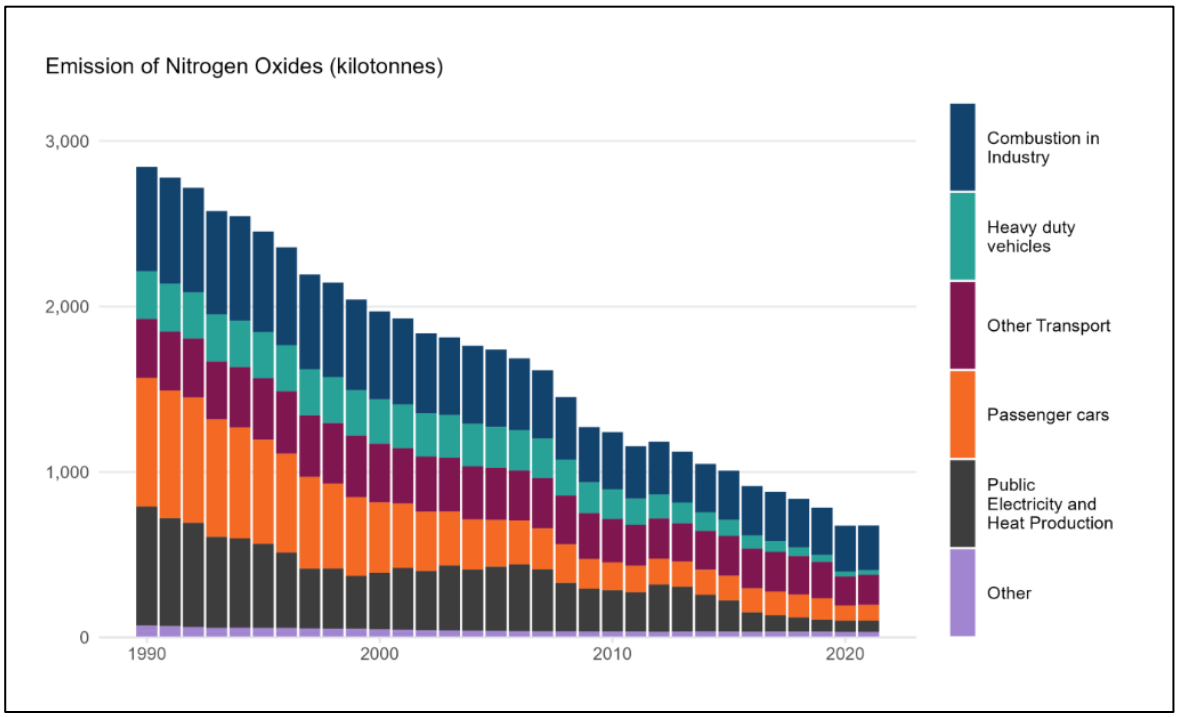
Therefore, where compelling evidence exists, an AQMA can be revoked following at least three consecutive years of compliance with the objective without the need for detailed modelling as would traditionally have been required under the technical guidance. That is to say that NO_2 concentrations monitored using diffusion tubes should have been lower than 36 µg/m^3 to account for the uncertainty inherent with the method for a period of three years or more, acknowledging wider trends or new sources that might impact continued compliance.

This report compiles the evidence required to revoke the Suffolk Coastal District Council AQMA Order No. 3.

National Influence

National strategies, policies and plans have and will continue to influence local polluting emissions. Total UK emissions of NO_x fell by over 40% between 1990 and 2021. Figure 2 shows that total NO_x emissions have decreased substantially over this period and are now less than one third of the total emissions in 1990. Emissions from several specific sources, notably public energy and heat production, passenger cars and heavy-duty vehicles, have also shown substantial decreases over the same period[3].

Figure 2 - Estimated Annual UK Emissions of Nitrogen Oxides (kt), 1990 – 2021 (Source: NAEI 2023)



Future influence on emissions is considered in a revised Clean Air Strategy[4] with a major transport emission objective that states:

"*We will end the sale of new conventional petrol and diesel cars and vans by 2040. We will position the UK as the best place in the world to develop, manufacture and use zero exhaust emissions vehicles and, during the transition, we will ensure that the cleanest conventional vehicles are driven on our roads'".*

[3] Defra, September 2023, 'Air Pollution in the UK 2022 Report'

[4] Department for Transport (DfT), January 2019, 'Clean Air Strategy 2019'

This transition to ultra-low and zero emission vehicles presents the largest potential for the reduction of future road traffic emissions in this AQMA. Department for Transport (DfT) road traffic forecasts[5] provide future numbers, compositions and emissions across the UK based on seven scenarios (to account for the broad range of possibilities and uncertainties in predicting up to 2060) linked to changing population, economic and social well-being and technological changes. The findings include:

- From 2025, traffic is projected to grow between 8% and 54% by 2060;
- Traffic on minor roads and A-roads is expected to grow by 21% and 20% respectively, while motorway traffic is projected to increase by 27% between 2025 and 2060;
- Between 2025 and 2050 NO_x emissions are projected to reduce by 65%, driven by the uptake of Euro 6 engines. However, as the uptake of Euro 6 engines flattens off the impact of greater travel increases NO_x by 1% between 2050 and 2060;
- Heavy Goods Vehicles (HGV) traffic is projected to have a moderate increase from 16 Billion (Bn) vehicle miles in 2025 to 18 Bn vehicle miles in 2060;
- Light Goods Vehicles (LGV) growth is stronger starting at 57 Bn vehicle miles in 2025 rising to 77 Bn by 2060; and
- Congestion (measured in delay per mile) is also projected to increase, with the average delay per mile projected to increase around 27% between 2025 and 2060.

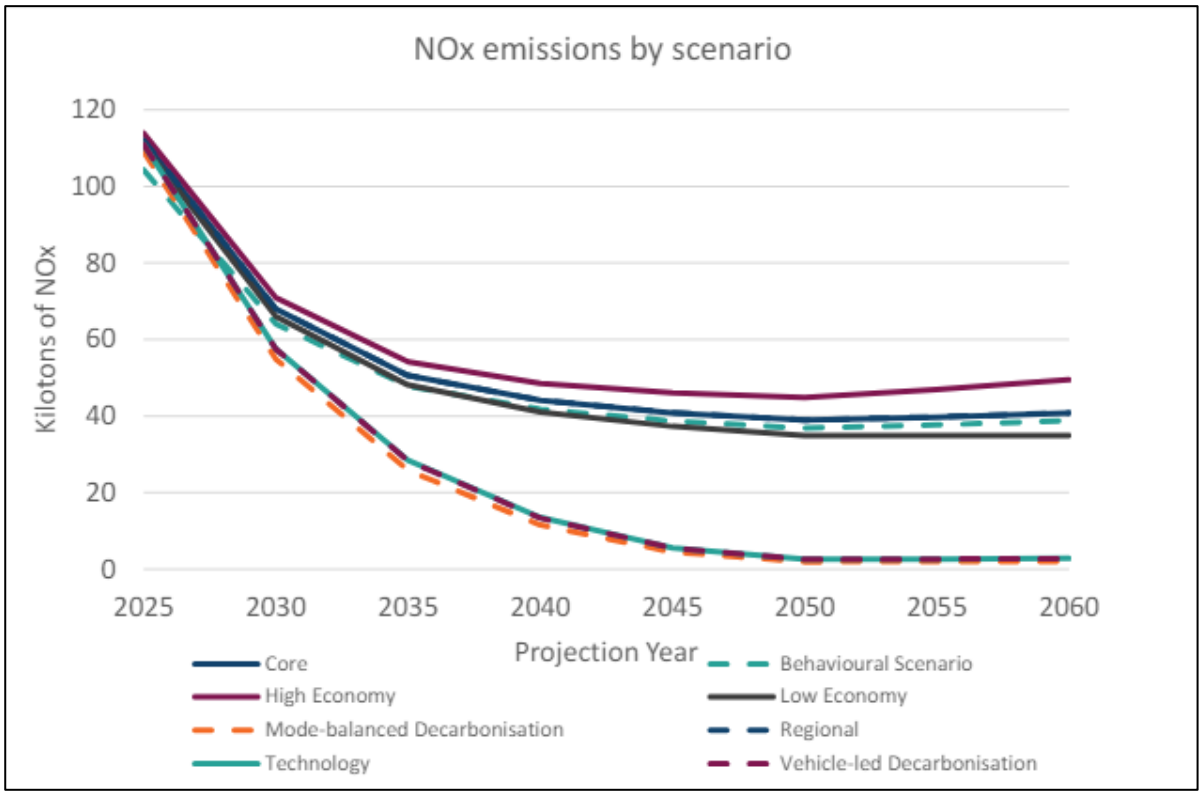
The national transport model (NTM) produces forecasts of emissions of Carbon Dioxide (CO_2), NO_x and PM_{10} measured at the tailpipe (though this does not capture any upstream emissions produced) as shown in Figure 3. A set of seven scenarios which explore uncertainties in demography, economic growth, regional redistribution, behavioural change, emerging technologies, and decarbonisation, have been developed for use in modelling and appraisal. The projections illustrate that a wide range of traffic growth is possible in the long term, with the scenarios suggesting an 8% to 54% increase in distance driven between 2025 and 2060, though in this context the uncertainty in these figures should be noted.

Even if this nationally predicted increase in traffic growth is realised at the local level within Stratford St Andrew, associated NO_x emissions are also projected to reduce by between

[5] Department for Transport (DfT), December 2022, 'National Road Traffic Projections 2022'

61% (in the High Economy Scenario) and 98% (in the Mode-balanced Decarbonisation Scenario) between 2025 and 2060, primarily due to fleet turnover.

Figure 3 - Forecast NO_x Road Traffic Emissions (kt) for England & Wales (Source: Department for Transport)



As already highlighted in East Suffolk's 2021 ASR, COVID-19 also had notable impacts on NO_2 concentrations in 2020. The Air Quality Expert Group (AQEG) has estimated that during the initial lockdown period in 2020, within urbanised areas of the UK, reductions in NO_2 annual mean concentrations were between 20 and 30% relative to pre-pandemic levels, which represents an absolute reduction of between 10 to 20 µg/m^3 if expressed relative to annual mean averages[6].

The above considered, it is therefore likely that despite uncertainty in predicting such trends, the nationally projected reductions in overall NOx emissions will continue to contribute toward reducing concentrations within the AQMA, below their current level.

[6] Air Quality Expert Group (AQEG), June 2020, 'Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK'.

Regional Influence

Local Plan

The Suffolk Coastal Local Plan (SCLP) sets out a vision for the communities of the former Suffolk Coastal area up to 2036. The National Institute for Health and Care Excellence (NICE) encourages Local Authorities to address the issue of air pollution in their Local Plan. The SCLP seeks to improve air quality not only in AQMAs but across the plan area and elsewhere. In particular, development proposals are expected to minimise and mitigate air pollution and to contribute towards the achievement of air quality objectives.

The SCLP area comprises both urban and rural settlements and within certain parts there are limited public transport opportunities, resulting in a heavy reliance on private cars as a form of transport. Due to this, there has been a focus on sustainable transport mechanisms in the SCLP. This complements the Local Transport Plan (LTP), identifying changes that will secure an improved transport network and contributing to the shared priority of improving air quality.

Policy SCLP7.1: Sustainable Transport, impacts on air quality by regulating developments to ensure they encourage and facilitate the use of sustainable transport options where possible and support the efficient use of existing transport networks.

Developments are supported in the SCLP area only when:

- Any significant impacts on the highways network are mitigated;
- It is proportionate in scale to the existing transport network;
- All available opportunities to enable and support travel on foot, by cycle or public transport have been considered and taken;
- It is located close to, and provides safe pedestrian and cycle access to services and facilities;
- It is well integrated into and enhances the existing cycle network including the safe design and layout of new cycle routes and provision of covered, secure cycle parking
- It is well integrated into, protects and enhances the existing pedestrian routes and the public rights of way network;
- It reduces conflict between users of the transport network including pedestrians, cyclists, users of mobility vehicles and drivers and does not reduce road safety; and
- The cumulative impact of new development will not create severe impacts on the existing transport network.

Other specific policies relevant to the improvement of air quality include Policy SCLP 10.3 Environmental Quality, which requires development proposals to protect the environment and minimise all forms of pollution where possible, including air pollution. Policy SCLP 11.2 Residential Amenity requires the Council to include air quality and pollution when considering the impact of a development on residential amenity.

Local Transport Plan (LTP)

The Suffolk County Council LTP (2011-2031) also provides a strategy for transport management until 2031. The plan prioritises the growth of business, reducing the demand for car travel, making efficient use of transport networks and improving infrastructure, which should all help to ensure continued compliance within the Suffolk Coastal District Council AQMA Order No. 3.

Of note is that the next LTP, LTP4[7], is currently in the process of being drafted, and will cover the period to 2040. This responds to the long-term transport opportunities and challenges facing Suffolk and the UK as a whole. Air Quality is anticipated to be a constituent part of LTP4, as follows, further ensuring improvements to emissions to air from road traffic are part of local policy in future:

"Health, Wellbeing and Social inclusion - Improve air quality in Suffolk, focusing on areas where transport related air quality is shortening the lives of Suffolk residents the most."

Air Quality Action Plan

The AQAP for the AQMA received Defra approval in March 2018 and consists of two short term, priority action measures and six longer term aspirational measures. The main priority measure, for Suffolk County Council to move the 30/50mph change of speed limit sign further south out of the village was undertaken in December 2017. The second priority measure 'Assessment of planning applications for impact on air quality' has been implemented by the ESC Environmental Protection Team for more than 20 years and is on-going. The other aspirational measures aim to ease congestion and reduce overall traffic flows, resulting in reduction in NO_2 emissions, specifically around the AQMA. These have been implemented to varying degrees, and can be summarised as follows:

[7]Suffolk County Council, Local Transport Plan 4 2024-2040 Consultation, Available at: https://www.suffolk.gov.uk/asset-library/local-transport-plan-consultation.pdf

Installation of speed cameras – Vehicular Activated Signs (VAS) just North, VAS North and South, policed speed camera and average speed cameras. Due to cost implications these were only to be considered should movement of speed limit not prove successful in reducing NO_2 concentrations within the AQMA, and have therefore not been installed.

Installation of a bypass – this has been agreed within the planning consent for Sizewell C and will be delivered by SZC Ltd. The two villages bypass build is estimated to take 18 months to two years from the start of construction and is due for completion end of 2026. This bypass will remove A12 traffic from the villages of Farnham and Stratford St. Andrew including the AQMA.

Mitigation measures for Sizewell C (SZC) – use of 92% Euro VI construction vehicles agreed as part of the Development Consent Order (DCO) - expectations are that they will actually achieve a higher percentage as companies have prepared and are using new vehicles. The applicant is also committed to: two off-site park and rides; a freight management facility; increased use of rail and sea; and an accommodation campus together with Construction Workforce Travel Plan, Construction Traffic Management Plan, Outline Dust Management Plan (DMP), Code of Construction Practice (CoCP). All of which should help to reduce emissions from SZC construction vehicles on the road network, including within the AQMA.

Air Quality Strategy

In 2021 East Suffolk Council published its first Air Quality Strategy, which aims to:

- Raise public awareness of the importance of air quality;
- Reduce emissions of $PM_{2.5}$ within the district;
- Encourage and enable active travel to benefit air quality and improve public health;
- Document the efforts made to improve air quality across the different areas of the Council.

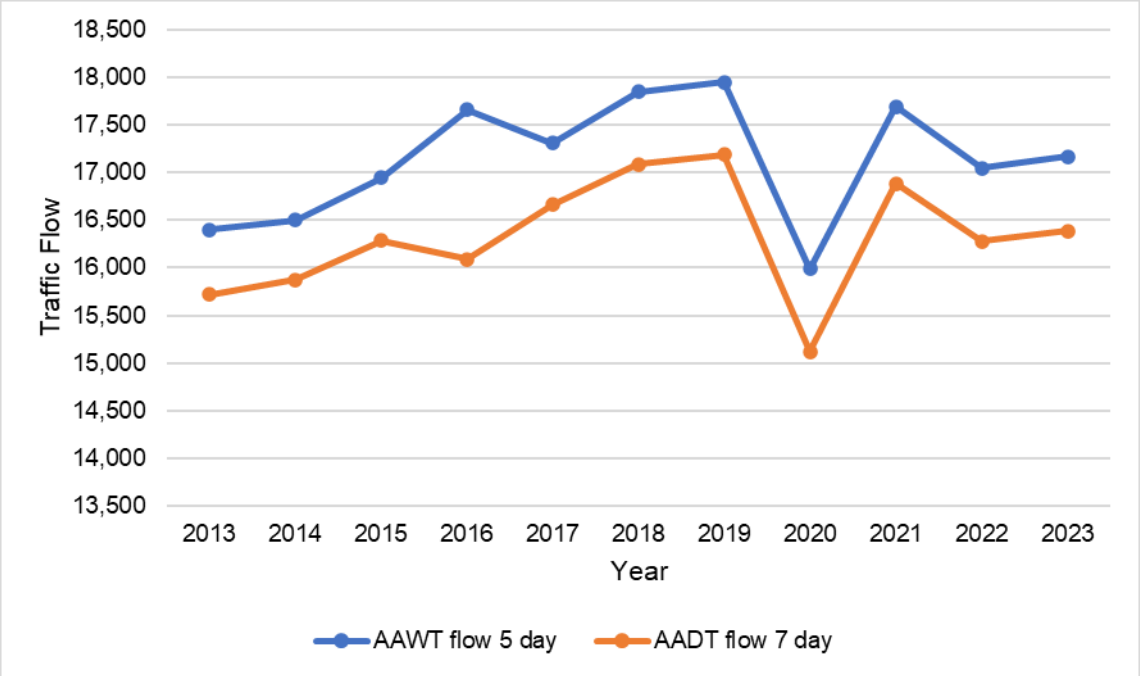
By setting a strategic direction on air quality at both district and county levels across the district, it is anticipated that greater improvements can be made, including within the AQMA. The strategy sets out a number of statutory and non-statutory obligations, ranging from sustainable transport to public information, that set the agenda the Council will be working towards in the coming years. As per paragraph 3.59 of LAQM.PG(22), if a local authority in England no longer has any declared AQMAs remaining, from 2023, the local authority should put in place a local air quality strategy to ensure air quality remains a high profile issue and to ensure it is able to respond quickly should there be any deterioration in condition.

That ESC already has the Strategy in place should serve to ensure that compliance with the objectives, where achieved, can be continually maintained.

Air Quality within Stratford St Andrew and the AQMA

As displayed in Figure 4, traffic volumes fell in 2020 during the pandemic but increased again in 2021. Flows were lower in 2022 but then increased slightly in 2023. It is likely that despite small increases in flow, air quality has continued to improve due to fleet emissions reductions, as older vehicles are replaced with newer, cleaner ones.

Figure 4 - Annual Average Daily Traffic (AADT) and Annual Average Weekday Traffic (AAWT) Flow from A12 Farnham from 2013 to 2023



A comparison of the annual mean AQS objective for NO_2 against the long-term monitoring results between 2011 and 2023 from diffusion tubes located within Stratford St Andrew and the AQMA can be seen in Figure 5.

Figure 5 - Trends in annual mean NO_2 concentrations at diffusion tube sites in Stratford St Andrew (2011 to 2023)

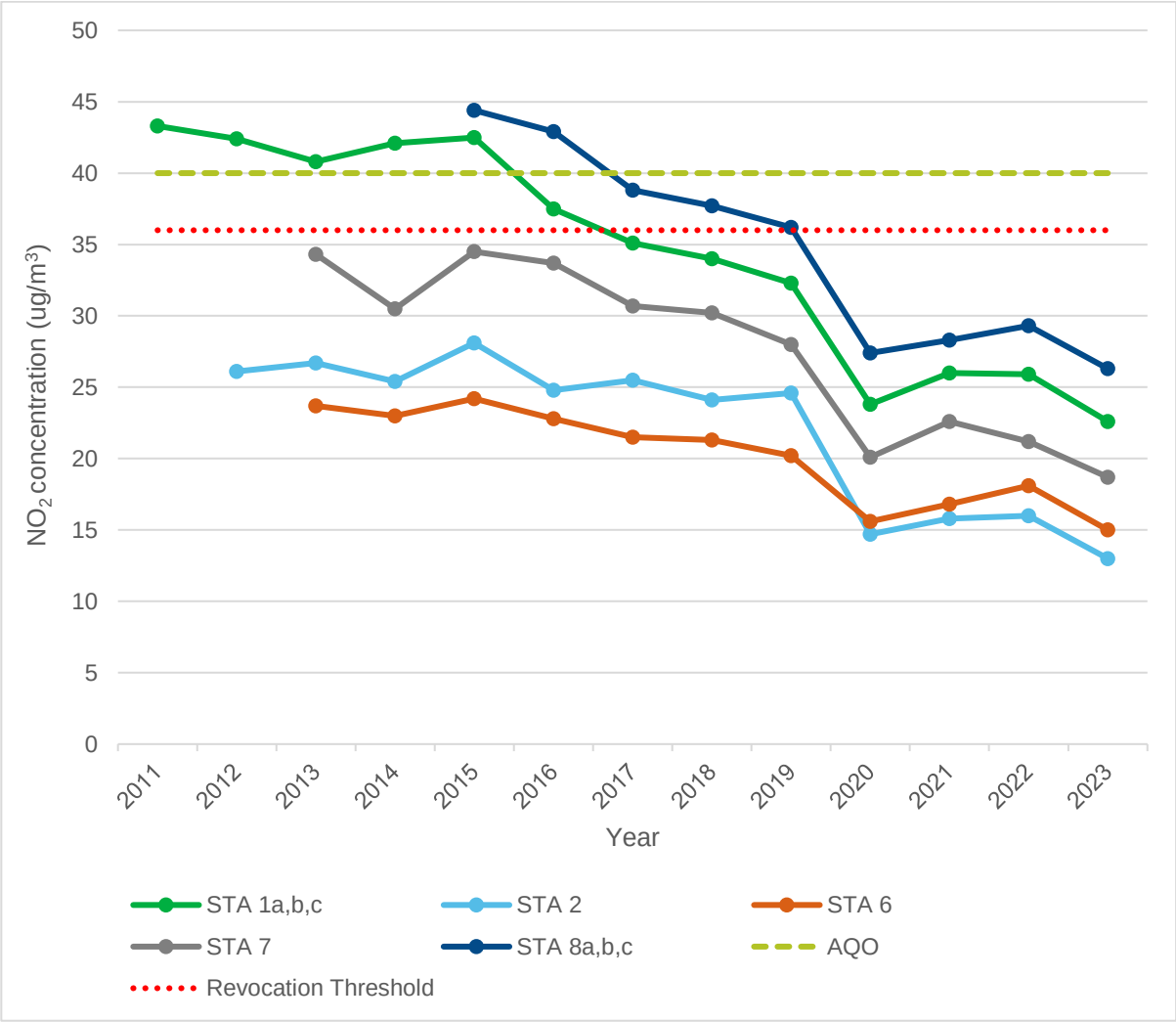


Figure 5 shows that all five monitoring locations within Stratford St Andrew, including sites STA 1 and STA 8 in the AQMA, recorded NO_2 concentrations that have been consistently below the annual mean AQS objective of 40 µg/m³ for six years (since 2017).

The AQMA last saw exceedances of the annual mean NO_2 objective in 2016, at site STA 8, measuring 42.9 µg/m^3. NO_2 concentrations fell each year thereafter for 4 years until 2020, and then have risen slightly in 2021 and 2022, relative to 2020, but decreased again in 2023. Measurements in 2020 across all five monitoring sites were expected to be low due to the impacts of the Covid-19 lockdowns reducing traffic flows using this route (see Figure 4). The maximum annual mean NO_2 concentration recorded in 2021 was 28.3 µg/m^3 at site STA 8

and concentrations rose slightly in 2022 to 29.3 µg/m^3. In 2023, concentrations decreased again, with levels at STA 8 measuring 26.3 µg/m^3.

The Defra helpdesk was consulted in 2022 and advised that where NO_2 monitoring is completed using diffusion tubes (as within this AQMA), to account for the inherent uncertainty associated with the monitoring method it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO_2 concentrations being lower than 36 µg/m^3 (i.e. within 10% of the annual mean NO_2 objective).

The AQMA has achieved compliance with the annual mean NO_2 objective of 40 µg/m^3 for six consecutive years (from 2017 to 2023), but has only been outside of 10% of the objective (<36 µg/m^3) for four consecutive years (from 2020 to 2023)[8]. However, these four years include monitoring data within the years of 2020 and 2021, for which the Defra Helpdesk has advised that this data is likely to have been impacted by the COVID-19 pandemic. Section 3.54 of LAQM TG.22 states that:

"It is not advisable for the revocation of an AQMA to be based solely upon compliance in a year not representative of long-term trends. For example, compliance being reached in 2020 may not be representative of long-term trends in pollutant concentrations due to the change in activity observed across the UK as a result of COVID-19 and associated lock down measures".

ESC therefore did not proceed with the revocation at that time.

While this was a conservative approach, the Defra Helpdesk reiterated that the purpose of the AQMA is to tackle exceedances of the AQ Objectives, which in this case, have been met. They have since advised (in consultation in 2023, and through appraisal feedback on the 2023 ASR) that unless a likely exceedance has been identified in 2023, they recommend the AQMA is revoked, and a robust local air quality strategy is developed. After such discussions, East Suffolk Council consider that the revocation now has the support of Defra, especially considering that the ESC AQ Strategy is already in place and due to be updated 2024/25.

[8] It should be noted that this was only by a very narrow margin. The highest monitored concentration in 2019 was 36.2 µg/m^3, so only marginally within this criteria.

Predicted Trends

To provide confidence that compliance with the objective will continue, Defra's Roadside NO_2 Projection factors (Table 1) have been used. The 2023 monitored concentrations have been projected forward five years (2024-2028) to demonstrate concentrations are expected to remain below the AQS objective. The adjustment factors applied for Stratford St Andrew were the 'Rest of UK HDV=<10%'. The projected results for the diffusion tube locations within Stratford St Andrew and it's AQMA are presented in Table 2.

Table 1 - Defra's Roadside NO_2 Projection Factors

Roadside NO_2 Projection Factors

Year	Central London	Inner London	Outer London	Rest of UK (HDV = <10%)	Rest of UK (HDV >10%)
2018	1.000	1.000	1.000	1.000	1.000
2019	0.813	0.909	0.945	0.953	0.942
2020	0.766	0.811	0.878	0.906	0.889
2021	0.740	0.767	0.829	0.855	0.835
2022	0.715	0.727	0.775	0.807	0.785
2023	0.696	0.693	0.738	0.765	0.743
2024	0.676	0.661	0.695	0.724	0.703
2025	0.660	0.634	0.657	0.686	0.667
2026	0.652	0.616	0.630	0.653	0.637
2027	0.645	0.598	0.606	0.622	0.610
2028	0.638	0.580	0.582	0.595	0.587
2029	0.632	0.563	0.560	0.571	0.566
2030	0.626	0.546	0.542	0.550	0.549

Table 2 - 2023-based Projected Annual NO_2 Mean Concentrations - Stratford St Andrew

Site	Within Suffolk Coastal District Council AQMA Order No. 3?	Monitored Annual NO_2 mean concentration ($\mu g/m^3$)	Projected Annual NO_2 mean concentration ($\mu g/m^3$)				
		2023	2024	2025	2026	2027	2028
STA 1a,b,c (1 Long Row, Main Road)	YES	22.6	21.4	20.3	19.3	18.4	17.3
STA 2 (Opposite 1-5 Long Row, Main Road)	NO	13.0	12.3	11.7	11.1	10.6	9.9
STA 6 (Jacobs Cottage)	NO	15.0	14.2	13.5	12.8	12.2	11.5
STA 7 (On Road past 5 Long Row, Main Road)	NO	18.7	17.7	16.8	16.0	15.2	14.3
STA 8a,b,c (5 Long Row, Main Road)	YES	26.3	24.9	23.6	22.4	21.4	20.1

Whilst the above table does not account for variability caused by the major developments latterly discussed, from Table 2 it can be observed that the forecasted concentrations of NO_2 decrease over the five-year period, and remain well below the AQS objective. The Government's commitment to net zero[9] emissions by 2050 and the adoption of the Road to Zero[10] transport strategy are expected to deliver significant further reductions in emissions from road transport. In its publication 'National Road Traffic Projections 2022'[5] the DfT has projected that NO_x emissions will decline by 64% from 2025 to 2060. In turn, this provides

[9] HM Government, October 2021, 'Net Zero Strategy: Build Back Greener'

[10] Department for Transport, July 2018, 'The Road to Zero'

confidence that the AQMA can be revoked without concern that the objective will be exceeded, unless significant new sources arise, at which point the NO_2 concentrations will be assessed again. The Council intend to continue with a monitoring regime in order to observe this.

Local Development

DCOs have been granted for SZC new nuclear power station, East Anglia ONE North and East Anglia TWO (EA1N and EA2) Offshore Windfarms, which it is recognised may have an impact on traffic travelling on the A12 through Stratford St Andrew and the AQMA, with Sizewell C being the largest development of the three.

All three developments have had detailed air quality assessments submitted at the time supporting the applications, which the Council have had independently reviewed. None are assessed to cause significant impacts directly within Stratford St Andrew and the AQMA, however increases in traffic created by these schemes could increase emissions in the vicinity of the AQMA and so should be incorporated into decision making around revocation.

Taking forward any of the aspirational measures from the AQAP within the AQMA has been put on hold whilst awaiting the outcome of the Sizewell C DCO application. The application includes a bypass of the A12 (including this AQMA) which should drastically improve NO_2 concentrations within the village including the AQMA. The DCO was consented by the Secretary of State on 20th July 2022 but has been subject to Judicial Review. The courts have since dismissed the legal challenge. The Final Investment Decision from the Government for Sizewell C is still awaited, however commencement of the development took place on 15th January 2024.

The early years works to build the associated developments, including the two villages bypass, will add traffic to the road network including through the AQMA. As part of discussions with SCC and ESC, SZC Ltd agreed to their construction fleet being made up of 92% Euro VI and expectations are that they will actually achieve a higher % as companies have prepared and are using new vehicles.

The two villages bypass build is estimated to take 18 months to two years from start of construction and is due for completion end of 2026. Traffic from the EA1N and EA2 DCO developments may also overlap with this period. The conclusions of the cumulative Air Quality Assessments undertaken for the Sizewell C DCO application do not however predict

exceedance of the annual mean NO_2 objective during the Early Years phase of the development.

The 2023 Early Years modelling is the only scenario which shows any negative impact within the AQMA. The 2023 modelling results for NO_2, PM_{10} and $PM_{2.5}$ are all classed as negligible and therefore not significant. Within the AQMA the NO_2 annual mean is predicted to increase by 0.7ug/m^3 (from 18.4 to 19.1ug/m^3) – though this is still well below the objective. Indeed, given the delay to the originally anticipated programme, it is likely that these negative impacts will be lessened as they will occur in later years.

All other future scenarios show a positive and beneficial impact within the AQMA once the two villages bypass is opened, with the peak year busiest day providing between a 7.4ug/m^3 and 6.7ug/m^3 reduction in annual mean NO_2 concentrations. The operational scenario for 2034 predicts a reduction between 6.9ug/m^3 6.5ug/m^3 in annual mean NO_2 concentrations.

Therefore, it has been demonstrated that despite some short term negative impacts on air quality within the AQMA which have been classed as insignificant, in the long term the construction of the two villages bypass will lead to a reduction in road traffic emissions and therefore concentrations of NO_2 within the AQMA. Revocation can therefore be supported with confidence.

ESC is also engaging with National Grid Electricity Transmission on the Sealink project[11] and have commented on air quality information within the Preliminary Environmental Information Report (PEIR). The PEIR confirms that air quality modelling will be required within the AQMA area at Stratford St. Andrew. Once results of air quality modelling are received by ESC they will be scrutinised further in subsequent LAQM reporting. ESC is aware that two further National Grid Venture projects are on the horizon, Nautilus and LionLink, for which there is limited detailed technical information at this time. Both projects will be reviewed in a similar fashion as required to ensure no significant impacts will be experienced in Stratford St Andrew.

[11] National Grid (2023) Preliminary Environmental Information Report, Available at: https://www.nationalgrid.com/electricity-transmission/document/151261/download

Summary, Conclusion and Recommendation

This assessment sets out the evidence relied upon by East Suffolk Council in seeking to revoke the Suffolk Coastal District Council AQMA Order No. 3.

Part IV of the Environment Act 1995 (as amended 2021) requires Local Authorities to review air quality in its area and assess whether AQS objectives will be achieved. Where it has been shown that the AQS objectives will not be achieved Local Authorities must declare an AQMA and put an AQAP in place to bring air quality within acceptable levels.

Where it can be subsequently demonstrated that AQS objectives are being and will continue to be met a Local Authority can revoke an AQMA by Order under the Environment Act 1995 (as amended 2021).

The Suffolk Coastal District Council AQMA Order No. 3 was designated in 2014 to address exceedances of traffic related NO_2 concentrations. Since 2014, monitoring has shown a continued reduction in pollutant concentrations, with recorded values having fallen below the AQS consistently for several years, since 2017.

National, regional and local policies have influenced the reduction in polluting emissions within the AQMA alongside ESC's AQAP, and it is reasonable to expect that further reductions will be achieved through the increasing use of ultra-low and zero emission vehicles in the coming years.

Although there are several large developments such as the SZC power station and EA1N and EA2 Offshore Windfarms expected to commence within the region, individual and cumulative assessments have determined they are not likely to have a significant effect on the air quality, despite their predicted short term increases in road traffic within Stratford St Andrew. Indeed, the two villages bypass that is part of the mitigation for SZC will be associated with significant beneficial impacts on NO_2 concentrations in the area that is currently the AQMA.

Having considered the historical monitoring data associated with The Suffolk Coastal District Council AQMA Order No. 3, national trends in emissions and any likely local impacts on the air quality within the AQMA, the Council is satisfied that the AQMA can be revoked. Whilst NO_2 concentrations within the AQMA have been consistently below the AQS objective for six years, it has also been demonstrated that this is likely to continue.

It is therefore recommended that the Suffolk Coastal District Council AQMA Order No. 3 be revoked at the earliest opportunity. A draft Revocation Order is presented in Appendix A:

Draft AQMA Revocation Order. As per paragraph 4.12 of LAQM.PG(22), the Council's recently published Air Quality Strategy will effectively supersede local action planning work in the event of revocation, ensuring continued air quality improvements beyond statutory designations.

Appendix A: Draft AQMA Revocation Order

East Suffolk Council Order 2024

Environment Act 1995 Part IV Section 83(2)(b)

Order Revoking an Air Quality Management Area

East Suffolk Council, in exercise of the powers conferred on it by Section 83(2)(b) of the Environment Act 1995 hereby makes the following order:

1. This Order shall revoke the area known as the Suffolk Coastal District Council AQMA No 3 (as shown in the attached map) declared for the Nitrogen dioxide (NO_2) - Annual Mean on 18/06/2014.
2. This Order shall come into force on 1st January 2025.

The Common Seal of East Suffolk Council

Was hereunto affixed

In the presence of:

……..

Dated:

……..

Appendix G: Copy of the Revocation Order for the AQMA located in Stratford St. Andrew

East Suffolk Council Order 2024

Environment Act 1995 Part IV Section 83(2)(b)

Order Revoking an Air Quality Management Area

East Suffolk Council, in exercise of the powers conferred on it by Section 83(2)(b) of the Environment Act 1995 HEREBY makes the following order:

1. This Order shall revoke the Order known as **'The Suffolk Coastal District Council Air Quality Management Area Order No 3, 2014'** in Stratford St. Andrew (as shown in the attached map) declared for the nitrogen dioxide (NO_2) annual mean.
2. This Order shall come into force on the date of sealing.

Dated this 18th day of December 2024

The Common Seal of East Suffolk Council was affixed in the presence of:

.....

Authorised Officer LICENSING MANAGER AND HOUSING LEAD CAMTAA

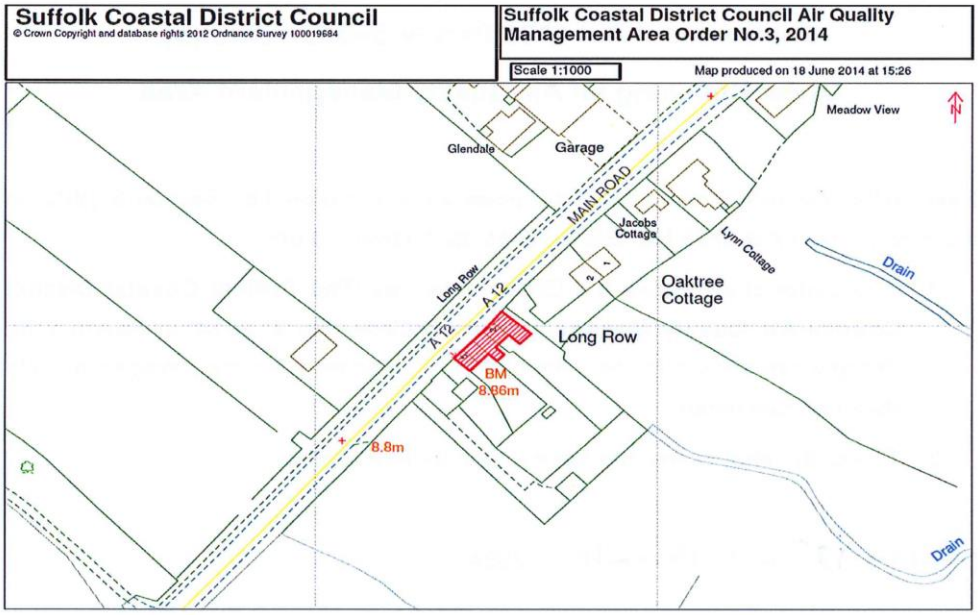
150

.....

~~Authorised Officer~~ MOAC

Dated:

18th December 2024


Suffolk Coastal District Council
© Crown Copyright and database rights 2012 Ordnance Survey 100019684
Suffolk Coastal District Council Air Quality Management Area Order No.3, 2014
Scale 1:1000
Map produced on 18 June 2014 at 15:26
Meadow View
Glendale
Garage
MAIN ROAD
Jacobs Cottage
Lynn Cottage
Drain
Long Row
A12
Oaktree Cottage
Long Row
BM
8.86m
8.8m
Drain

Appendix H: OPCube Monitoring Details and Results for 2024

Site deployment information – Lowestoft Love Road

(taken from PAS 4023:2023 Selection, deployment and quality control of low-cost air quality sensor systems in outdoor ambient air – Code of practice)

Parameter	Metadata
Site name	**Lowestoft Love Road**
Site address	Love Road, Lowestoft NR32 2NY
Installation date	Installed 20/12/23 Data collection started 01/01/24
Reason for siting	Defra background maps show this site to be within one of the highest predicted grids squares for PM2.5 within the district – want to measure levels.
Sensor details	Make and Model: SCS Praxis Cube Serial number: **scsopc179**
Location	Latitude: 52.479489 Longitude: 1.7460183 OS reference: 654467 293439
Pollutants measured	NO2, PM10, PM2.5
Security/risk of vandalism/access	Very low risk of vandalism.
Access to street furniture	None available in this location
Electricity supply	External double socket installed on building by the Councils' electrician.
Co-located with reference analyser	No
Ease of mounting sensor unit	Mounted on wooden fence post concreted into the ground. Sensor easy to put up and take down.
Height from ground level in metres	1.65m
Geographic concerns	Details: Site is 1.5m from the building façade with free-flowing air around it. Nothing over-hanging.

Air Pollution Report

Produced by Ricardo Energy & Environment on behalf of East Suffolk Council

Lowestoft Love Road (scsopc179)

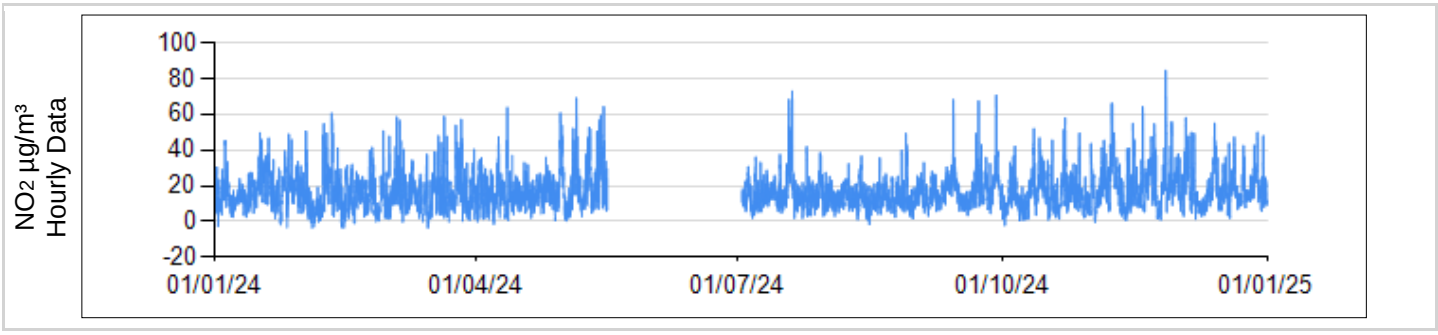
01/01/2024 to 31/12/2024

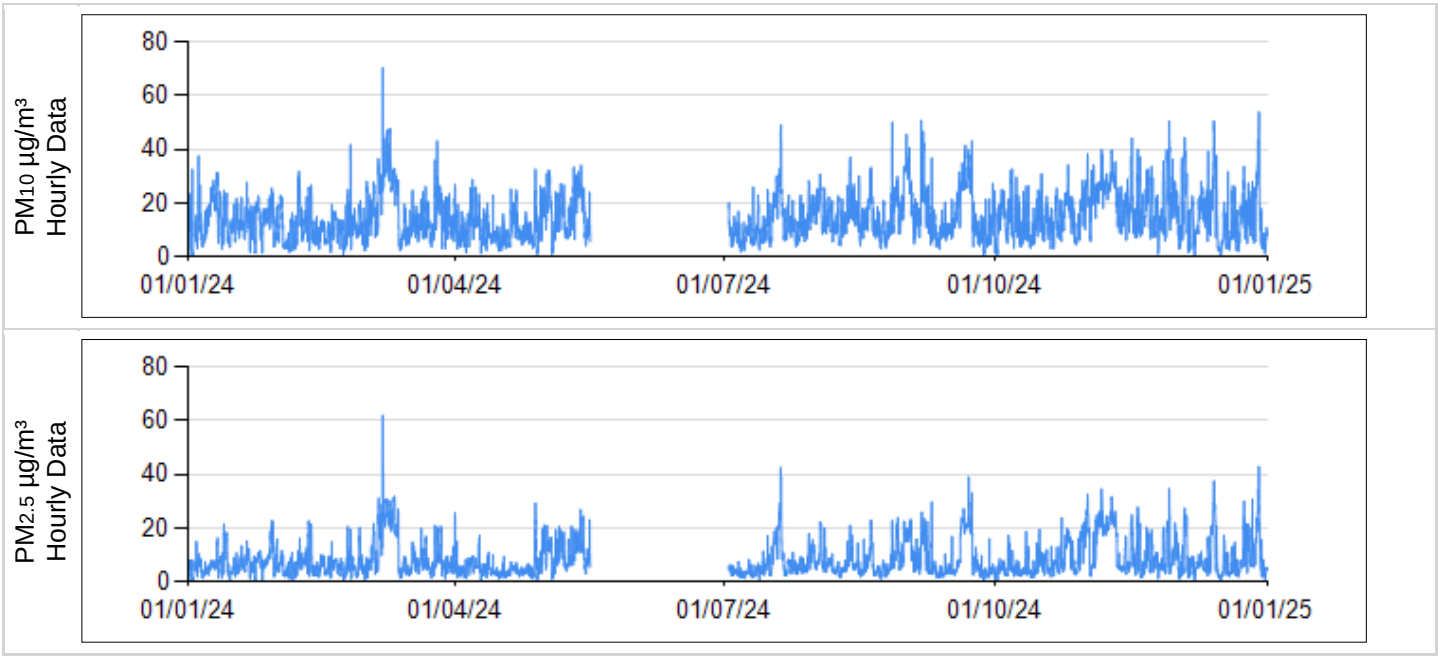
These data have been fully ratified

	V High (No. of Days)	High (No. of Days)	Mod (No. of Days)	Low (No. of Days)	Max. Hourly Conc.	Max. Daily Conc.	Max. Running 8 Hour Mean	Max. Running 24 Hour Mean	Period Mean Conc.	Period Data Capture (%)
NO_2 (µg/m³)	0	0	0	320	84	43	65	47	17	86.0
PM_{10} (µg/m³)	0	0	0	317	70	38	47	39	15	87.0
$PM_{2.5}$ (µg/m³)	0	0	0	317	62	31	41	31	9	87.0

Particulate matter concentrations are reported at ambient temperature and pressure.
All mass units are at 20°C and 1013mb.

	Air Quality Objective	Exceedances	Days
NO_2	Hourly mean > 200 µg/m³	None	0
NO_2	Period mean > annual mean obj 40 µg/m³	No	
PM_{10}	Daily mean > 50 µg/m³	None	0
PM_{10}	Period mean > annual mean obj 40 µg/m³	No	
$PM_{2.5}$	Period mean > annual mean obj 10 µg/m³ (Scotland)	No	
$PM_{2.5}$	Period mean > annual mean obj 25 µg/m³ (UK)	No	
$PM_{2.5}$	Period mean > annual mean obj 20 µg/m³ (EU)	No	
Note: When comparing site measurements against the air quality objectives data capture should meet or exceed 85% across a calendar year.			




PM10 µg/m³ Hourly Data
80
60
40
20
0
01/01/24
01/04/24
01/07/24
01/10/24
01/01/25
PM2.5 µg/m³ Hourly Data
80
60
40
20
0
01/01/24
01/04/24
01/07/24
01/10/24
01/01/25

Site deployment information – Worlingham Rectory Lane

(taken from PAS 4023:2023 Selection, deployment and quality control of low-cost air quality sensor systems in outdoor ambient air – Code of practice)

Parameter	Metadata
Site name	**Worlingham Rectory Lane**
Site address	Rectory Lane, Worlingham, Beccles NR34 7RE
Installation date	Installed 16/11/23 Data collection started 01/01/24
Reason for siting	Defra background maps show this site to be the closest area of residential housing downwind of one of the highest predicted grid squares for PM2.5 within the district (Ellough industrial estate).
Sensor details	Make and Model: SCS Praxis Cube Serial number: **scsopc179**
Location	Latitude: 52.448278 Longitude: 1.6016969 OS reference: 644844 289470
Pollutants measured	NO2, PM10, PM2.5
Security/risk of vandalism/access	Details: – mounted at height on a cranked pole on the front garage of a residential property – very low risk of vandalism. Property has security cameras.
Access to street furniture	None nearby
Electricity supply	Via external mains socket on the side of the garage within the rear garden of the property close to the back gate. Installed by Council's electrician and isolated from rest of property electrics.
Co-located with reference analyser	No
Ease of mounting sensor unit	Difficult. Need to contact East Suffolk Services Ltd. as is too high for us to access.
Height from ground level in metres	3.25m
Geographic concerns	Details: Sited on cranked pole above garage roof. Free flowing air surrounding it but buildings close by.

Air Pollution Report

Produced by Ricardo Energy & Environment on behalf of East Suffolk Council

Worlingham (scsopc219)

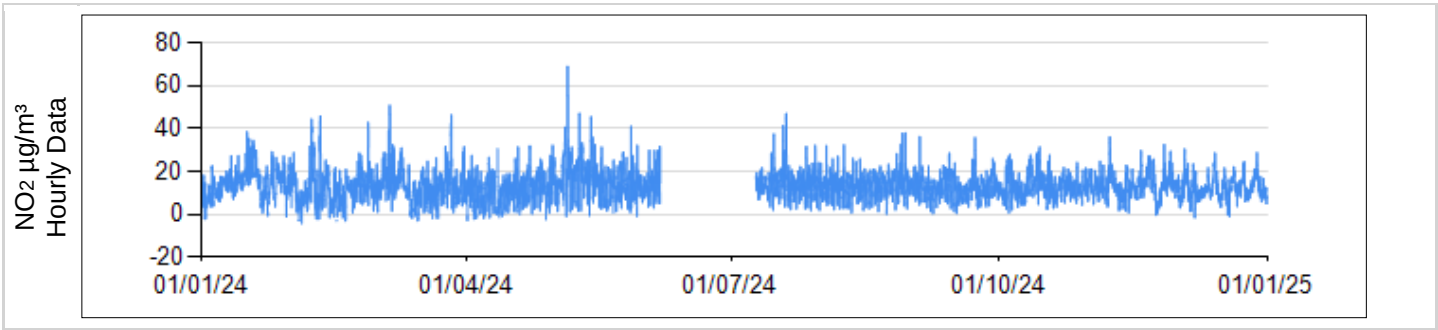
01/01/2024 to 31/12/2024

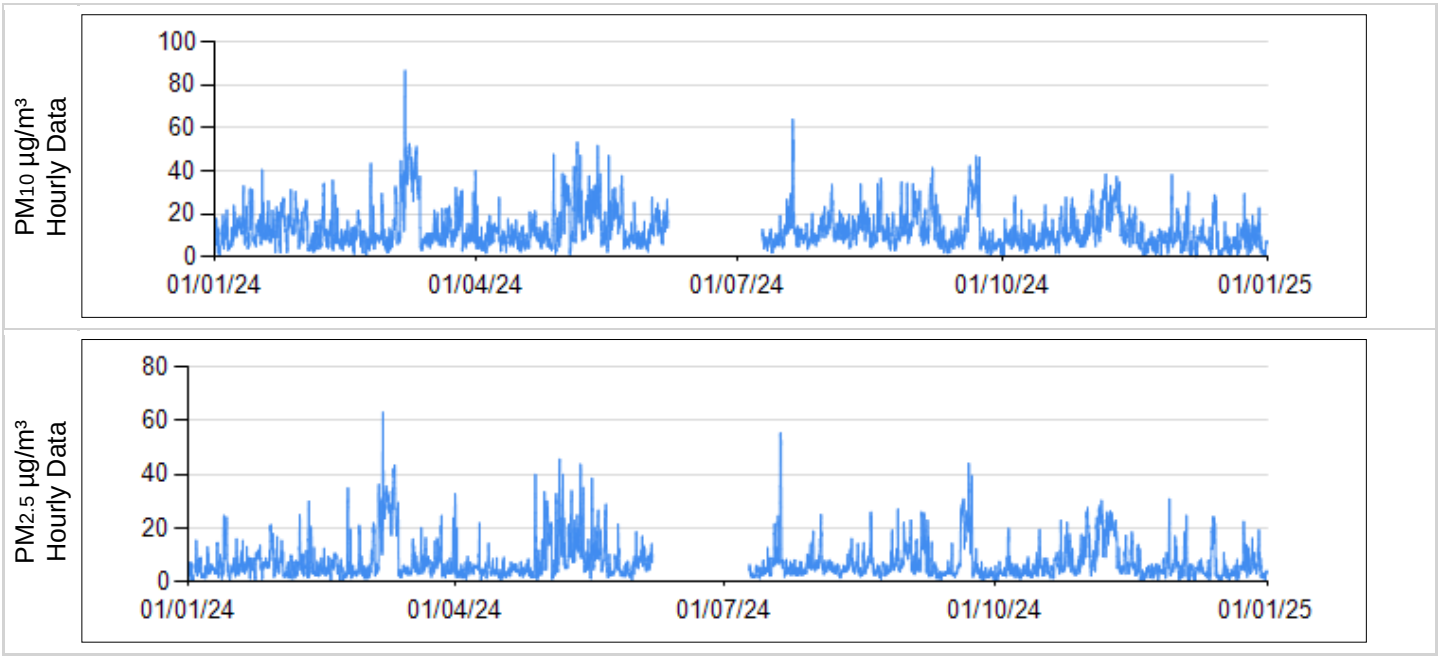
These data have been fully ratified

	V High (No. of Days)	High (No. of Days)	Mod (No. of Days)	Low (No. of Days)	Max. Hourly Conc.	Max. Daily Conc.	Max. Running 8 Hour Mean	Max. Running 24 Hour Mean	Period Mean Conc.	Period Data Capture (%)
NO_2 (µg/m³)	0	0	0	334	69	27	46	30	14	89.8
PM_{10} (µg/m³)	0	0	0	331	87	47	56	48	13	90.8
$PM_{2.5}$ (µg/m³)	0	0	0	331	63	33	49	36	8	90.8

Particulate matter concentrations are reported at ambient temperature and pressure.
All mass units are at 20°C and 1013mb.

	Air Quality Objective	Exceedances	Days
NO_2	Hourly mean > 200 µg/m³	None	0
NO_2	Period mean > annual mean obj 40 µg/m³	No	
PM_{10}	Daily mean > 50 µg/m³	None	0
PM_{10}	Period mean > annual mean obj 40 µg/m³	No	
$PM_{2.5}$	Period mean > annual mean obj 10 µg/m³ (Scotland)	No	
$PM_{2.5}$	Period mean > annual mean obj 25 µg/m³ (UK)	No	
$PM_{2.5}$	Period mean > annual mean obj 20 µg/m³ (EU)	No	
Note: When comparing site measurements against the air quality objectives data capture should meet or exceed 85% across a calendar year.			




PM10 µg/m³
Hourly Data
100
80
60
40
20
0
01/01/24
01/04/24
01/07/24
01/10/24
01/01/25
PM2.5 µg/m³
Hourly Data
80
60
40
20
0
01/01/24
01/04/24
01/07/24
01/10/24
01/01/25

Appendix I: Results summary of air quality monitoring undertaken at the UK Automatic Urban and Rural Network site at Sibton during 2024

Air Pollution Report

1st January to 31st December 2024

Air Quality England

Sibton (Site ID: SIB)

These data have been fully ratified
Only relevant statistics for LAQM are presented in the table. Cells with - indicate no data available or calculated.

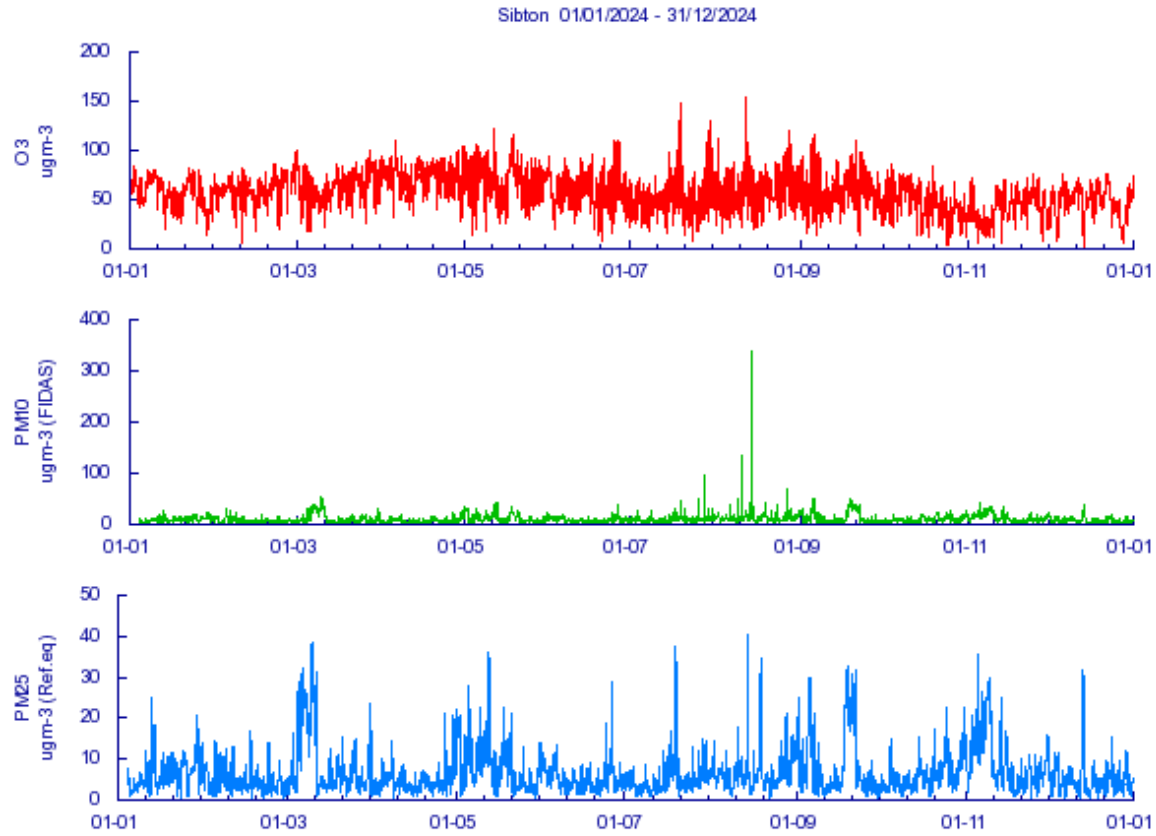
Pollutant	O_3 µg/m³	PM_{10} µg/m³	PM_{25} µg/m³
Number Days Low	366	361	361
Number Days Moderate	13	0	0
Number Days High	0	0	0
Number Days Very High	0	0	0
Max 8 Hour Ozone	132	-	-
Max Daily Mean	97	39	26
Annual Max	154	337	40
Annual Mean	57	10	7
98th Percentile of daily mean	-	32	-
90th Percentile of daily mean	-	17	-
98th Percentile of hourly mean	96	33	25
95th Percentile of hourly mean	88	26	19
50th Percentile of hourly mean	57	8	5
% Annual data capture	**98.43**	**98.79**	**98.79**

Instruments:
PM_{10}: FIDAS (01/01/2024 to 31/12/2024)
PM_{25}: FIDAS (01/01/2024 to 31/12/2024)

All gaseous pollutant mass units are at 20°C and 1013mb. Particulate matter concentrations are reported at ambient temperature and pressure. NO_X mass units are NO_X as NO_2 µg m-3

Pollutant	Air Quality Standards regulations 2010	Exceedances	Days
PM_{10} particulate matter (Hourly measured)	daily mean > 50 microgrammes per metre cubed	0	0
PM_{10} particulate matter (Hourly measured)	Annual mean > 40 microgrammes per metre cubed	0	-
$PM_{2.5}$ particulate matter (Hourly measured)	Annual mean > 25 microgrammes per metre cubed	0	-
Ozone	**8-hour running mean > 100 microgrammes per metre cubed**	**66**	**13**

Annual Graph



Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide

References

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