

2024 Air Quality Annual Status Report (ASR)

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

Date: June 2024

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Executive Summary: Air Quality in Our Area

The 2024 Annual Status Report is designed to provide the public with information relating to local air quality in Uttlesford, to fulfil Uttlesford District Council’s statutory duty to review and assess air quality within its area, and to determine whether or not the air quality objectives are likely to be achieved.

In 2023, Uttlesford District Council measured **no** exceedances of the Air Quality Objectives at relevant exposure.

Air Quality in Uttlesford

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. In the UK, it is estimated that the reduction in healthy life expectancy caused by air pollution is equivalent to 29,000 to 43,000 deaths a year¹.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Additionally, people living in less affluent areas are most exposed to dangerous levels of air pollution².

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.

¹ UK Health Security Agency. Chemical Hazards and Poisons Report, Issue 28, 2022.

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

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.
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Uttlesford is rural in nature and has the principal town of Saffron Walden as its administrative centre. Uttlesford is dissected by the M11 motorway and A120 trunk road which support Stansted International Airport in the south of the district.

Significant traffic congestion can occur during peak times within Saffron Walden causing high emissions of pollution such as nitrogen dioxide and particulate matter.

Traffic emissions are the most significant source of air pollution within the district. Within Saffron Walden, the historic layout of the town results in problems with traffic flow and congestion particularly at peak times.

Historically, Uttlesford District Council has had one Air Quality Management Area (AQMA) within Saffron Walden town centre, declared for Nitrogen Dioxide (NO₂) annual mean exceedances. For the seventh year running, no exceedances have been measured.

Due to the evidence set out in the Uttlesford District Council 2023 ASR, the AQMA has been revoked.

Table ES 2 - Revoked AQMAs

AQMA	Description	Date Declared	Date Amended	Date Revoked	Pollutant
Saffron Walden AQMA	Circle of radius 1400m radius centred on Elm Grove in Saffron Walden Town Centre.	01/08/2007	12/09/2012	19/03/2024	NO ₂ Annual Mean

Actions to Improve Air Quality

Saffron Walden Clean Air Project

The Clean Air Project will increase awareness of air pollution, an invisible health concern that negatively affects all Saffron Walden residents. While increasing awareness, the project will provide businesses, schools and residents with methods of reducing their exposure to and production of air pollution.

Our four main projects are based around school engagement, building public awareness, travel planning and education around wood burning:



School Engagement



Building Awareness



Travel Planning



Wood Burning

We have four local transport initiatives that are being rolled out:

Current Local Transport Initiatives



Bike training and support for cyclists

If you're new to cycling, or just want to improve your road skills, you will be able to join one of our training sessions in 2024.



EV bikes: hire or try before you buy

As part of the Saffron Walden Clean Air Project we are launching two EV bike schemes for the town.



EV car club in Saffron Walden

We have teamed up with Co-wheels Car Club to provide 2 electric cars within Saffron Walden town centre.



EV cargo bike hire

We've teamed up with OurBike to provide a community e-cargo bike that will be available for hire by local businesses.

Please visit the Saffron Walden Clean Air Project [website](#) for more information.

Conclusions and Priorities

Uttlesford District Council have concluded that:

- There is a long term downwards trend of monitored NO₂ air pollution.
- There is an upwards trend of monitored particulate matter air pollution at the UTT3 London Road monitoring site.
- No air quality exceedances have been identified in 2023.
- No air quality exceedances have been identified for seven years.
- There are no new developments that will have a significant impact on air quality.
- As set out in the LAQM Policy guidance, it is necessary for Uttlesford District Council to develop and adopt an Air Quality Strategy (AQS).

For 2024, Uttlesford District Council's priorities are to:

- Implement the Saffron Walden Clean Air Project. The main three measures are as following:
 - To improve air quality in Saffron Walden through active travel schemes
 - To identify improvements to traffic management in the town to reduce congestion whilst also routing HGVs away from locations.
 - Raise awareness of air quality issues and better educate residents and businesses on the health impacts of poor air quality and change behaviour resulting in improved local air quality.
- Revoke the Saffron Walden AQMA. At the time of completing this report the AQMA has been revoked.
- Investigate the increasing particulate matter concentrations at the UTT3 London Road monitoring site.
- To engage with Essex County Council and other Essex local authorities in the development of a Air Quality Strategy

Local Responsibilities and Commitment

This ASR was prepared by Public Health and Protection Services of Chelmsford City Council on behalf of Uttlesford District Council.

This ASR has been approved by Marcus Watts Environmental Health Manager.

This ASR has been sent to the Essex County Council Director of Public Health.

If you have any comments on this ASR please send them to Uttlesford District Council at:

Environmentalhealth@uttlesford.gov.uk Or by telephone on 01709 510510

Local Engagement and How to get Involved

Essex Air

Uttlesford District Council is a member of the Essex Air Quality consortium which along with Essex County Council launched the new Essex Air [website](#) on 28th November 2023 to raise awareness about air pollution in Essex. The website provides a pollution monitoring map and highlights simple actions that people can take to reduce emissions.

The website features a dedicated school zone with resources, activities, and games, an air pollution map, tips to reduce exposure to air pollution, and advice on changing travel habits to lessen exposure to pollution.

The [@EssexAir](#) feed provides localised weekly air pollution, weather and pollen forecasts.

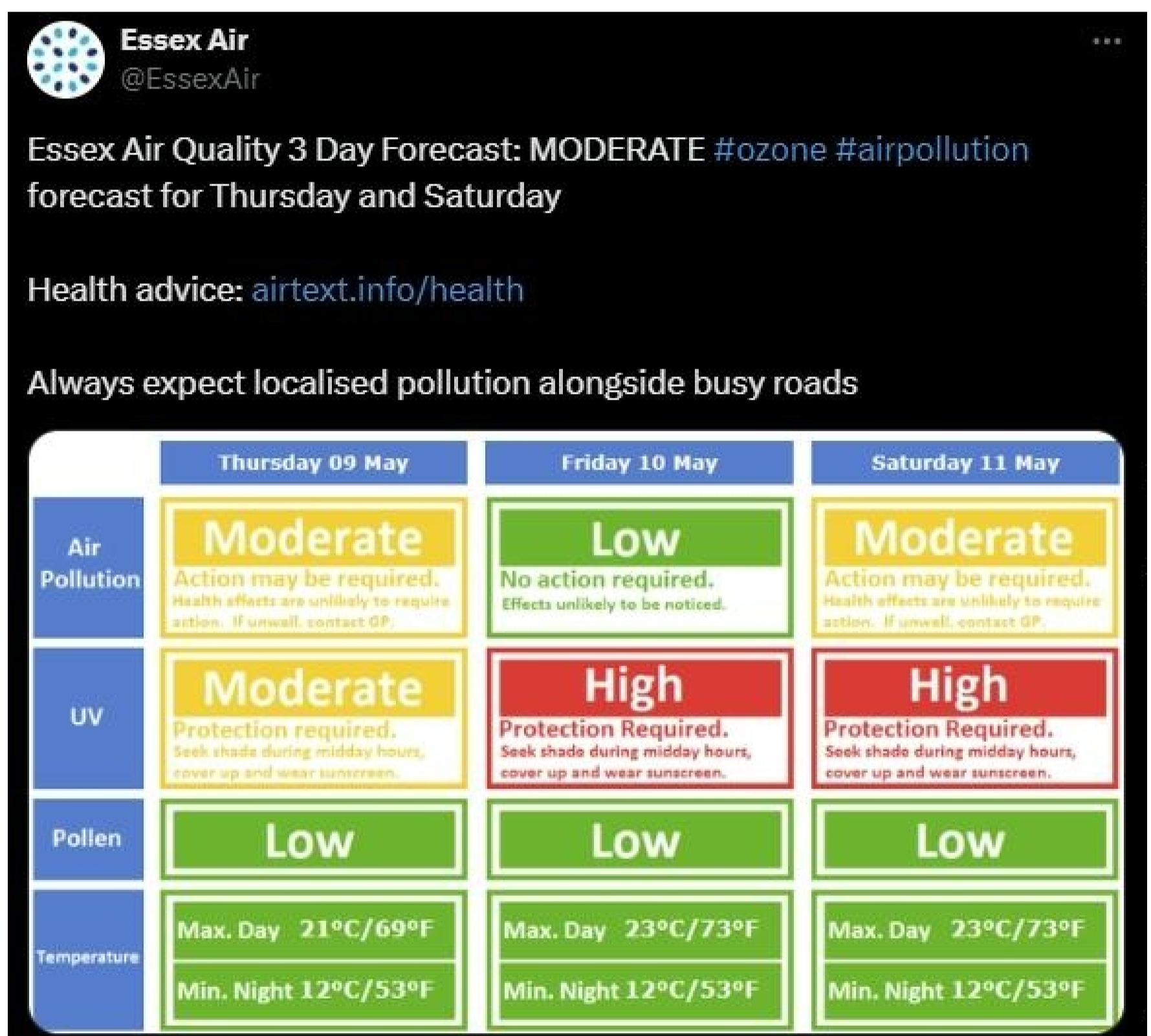


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1 Local Air Quality Management

This report provides an overview of air quality in Uttlesford during 2023. 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 Uttlesford District Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented 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.

Uttlesford District Council currently does not have any declared AQMAs. The Council will be working with Essex County Council on developing the Essex Air Quality Strategy which could be adopted by the Council as its local Air Quality Strategy.

2.2 Progress and Impact of Measures to address Air Quality in Uttlesford

Defra’s appraisal of last year’s ASR concluded the report is well structured, detailed, and provides the information specified in the Guidance.

Details of the type of measure and the progress Uttlesford District Council have made during the reporting year of 2023 are presented below. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1.

Table 2.1 – 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	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Active Travel Schemes	Transport Planning and Infrastructure	Other	2023	2026	Local Authority Environmental Health, Local Authority Transport Dept, County Council.	Uttlesford District Council	YES	Funded	£100k - £500k	Planning				To improve air quality in Saffron Walden through active travel schemes:- Develop & implement community cargo bike schemes, Bike hire schemes, EV Car Club, Bike ‘Try Before you Buy’ pilot scheme, bikeability training events, Ebike network and bike loan scheme, shared transport scheme as well as Clean Air Night.
2	Saffron Walden Transport Study	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2023	2026	Uttlesford District Council	Uttlesford District Council	YES	Funded	£50k - £100k	Planning				Wholistic Transport Study :- To identify improvements to traffic management in the town to reduce congestion whilst also routing HGVs away from locations.
3	Air Quality Educational Programme	Public Information	Via other mechanisms	2023	2026	Uttlesford District Council	Uttlesford District Council	YES	Funded	£10k - 50k	Planning				Education:- Raise awareness of air quality issues and better educate residents and businesses on the health impacts of poor air quality and change behaviour resulting in

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
															improved local air quality:- Engagement with schools to promote, educate and deliver supported interventions with schools that will increase awareness and support active travel. Engagement events and active travel activities and Cycle Walden events. Undertaking a wood burning study in Saffron Walden with Town Wide Pollution Awareness and Behaviour Change project.
	To produce a planning Technical Guidance document for air quality, to ensure the impacts of new development and the level of mitigation are fully considered in all applications.	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2017	2025	Uttlesford District Council	Uttlesford District Council	NO	Funded	< £10k	Planning	Low, but potential to mitigate against emission increases associated with future growth.		Technical Guidance document has been completed Cost within existing resources	Pending approval of new Local Plan. However, the service is pushing to link S106 funding against other policies, incl the SW neighbourhood plan
	UDC to increase cycle storage on Council owned sites in Saffron Walden where practical to do so.	Transport Planning and Infrastructure	Cycle network	2017	2024	Uttlesford District Council	Uttlesford District Council	NO				Low, dependant on reduction in number of vehicles on road network	Increase in no of storage facilities and users of facilities from baseline	Incorporated into the active travel measures adopted	
	To assist ECC in working with local schools and businesses in the review and upgrading of existing travel plans or to assist individual schools or businesses to develop and promote plans	Promoting Travel Alternatives	School Travel Plans	2017		Uttlesford District Council / Essex County Council	Uttlesford District Council / Essex County Council	YES	Funded	£10k - 50k	Implementation	Low, dependant on reduction in number of vehicles on road network	Number of new or upgraded TPs. Increase in walking or cycling to school or workplace from baseline	School travel plans progressing with the air quality awareness measures being implemented within all SW schools	Reliance on joint working with ECC and other stakeholders to develop new travel plans.

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

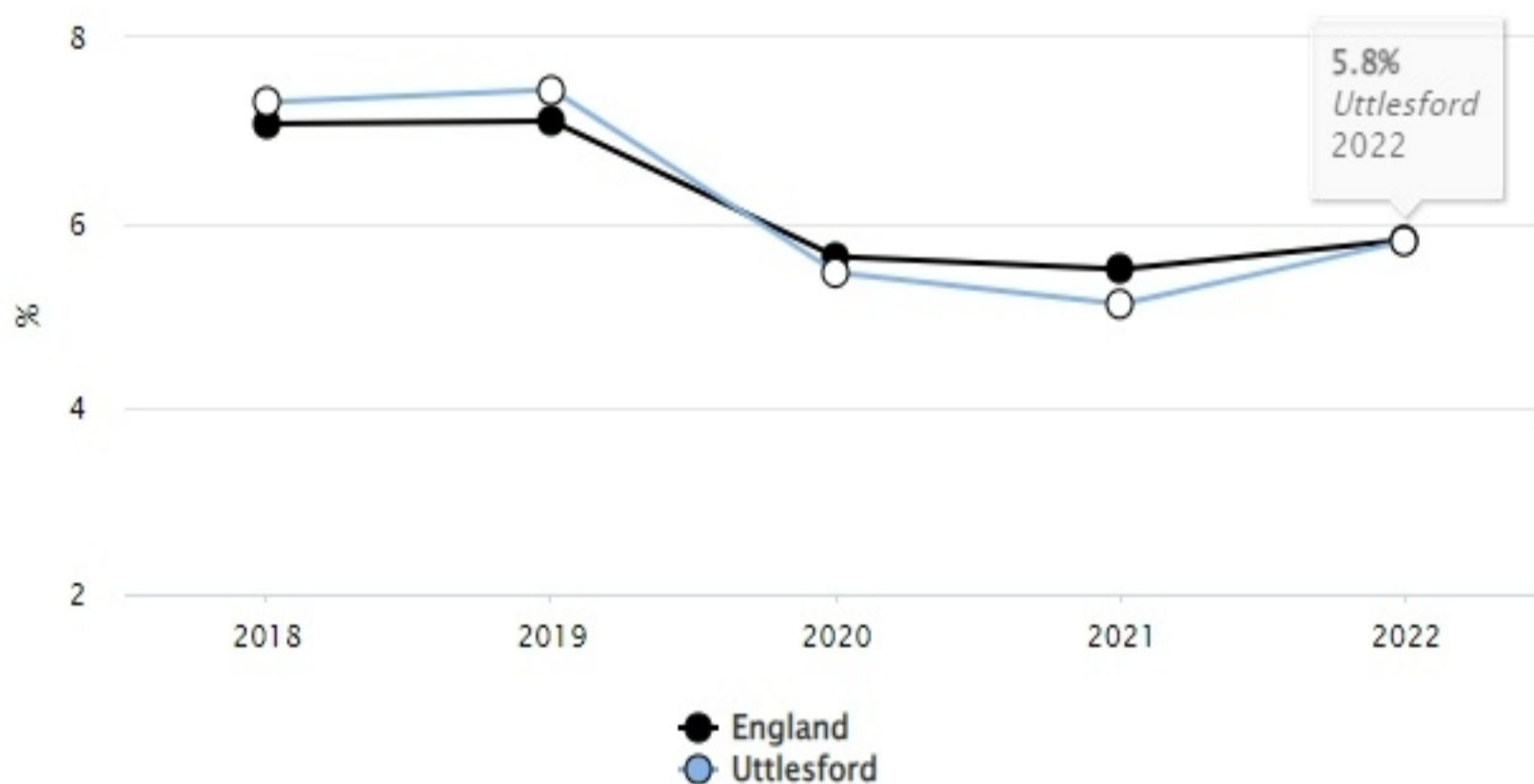
As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy³, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM_{2.5}). There is clear evidence that PM_{2.5} (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Uttlesford District Council monitors PM_{2.5} concentrations using one BAM 1020 reference monitor. For 2023, the measured annual mean concentration was 21µg/m³ which is significantly above the Environment Act PM_{2.5} 2040 annual mean concentration target of 10µg/m³ and the trend is rising.

The Local Air Quality Management background maps identify that the maximum PM_{2.5} background concentration within the Uttlesford District Council area is 10.2µg/m³.

The Public Health Outcomes Framework indicator D01 – Fraction of mortality attributable to particulate (PM_{2.5}) air pollution which for 2022 gave a value of 5.8%.

Figure 2.1 – Public Health Framework Indicator D01 Fraction of all-cause adult mortality attributable to anthropogenic particulate air pollution



³ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

Uttlesford District Council is taking the following measures to address PM2.5:

- Planned works include the undertaking of a wood burning study in Saffron Walden alongside a Town Wide Pollution Awareness and Behaviour Change project.
- Regular inspections of permitted industry where combustion and non-combustion processes could lead to anthropogenic emissions of PM2.5

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

This section sets out the monitoring undertaken within 2023 by Uttlesford District Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2019 and 2023 to allow monitoring trends to be identified and discussed.

In 2023, no exceedances of the air quality objectives have been measured.

Measured NO₂ annual mean concentrations are continuing to fall. As no measured annual mean concentrations were greater than 60µg/m³, it is considered unlikely that there has been an exceedance of the 1-hour mean objective

No exceedances of the PM₁₀ have been identified however the long-term trend is slightly upwards.

The long-term trend for PM_{2.5} is slightly upwards.

Quality assurance and quality control information for the automatic analysers, diffusion tubes bias adjustments and other adjustments applied (e.g. annualisation and/or distance correction) are presented in Appendix C. Maps showing the location of the monitoring sites are presented in Appendix D.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Uttlesford District Council undertook automatic (continuous) monitoring with reference analysers at two sites during 2023. Table A.1 in Appendix A shows the details of the automatic monitoring sites.

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.

3.1.2 Non-Automatic Monitoring Sites

Uttlesford District Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 39 sites during 2023. 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.

3.2 Individual Pollutants

3.2.1 Nitrogen Dioxide (NO₂)

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.

For diffusion tubes, the full 2023 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B. includes distance corrected values, only where relevant.

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³.

Table A.5 in Appendix A compares the ratified continuous monitored NO₂ hourly mean concentrations for the past five years with the air quality objective of 200µg/m³, not to be exceeded more than 18 times per year. Also, no diffusion tube annual mean concentrations were greater than 60µg/m³, it is considered unlikely that there has been an exceedance of the 1-hour mean objective

3.2.2 Particulate Matter (PM₁₀)

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM₁₀ annual mean concentrations for the past five years with the air quality objective of 40µg/m³.

The results show that no exceedances of the annual mean Air Quality Objective have been measured and that there is no clear trend.

Table A.7 in Appendix A compares the ratified continuous monitored PM₁₀ daily mean concentrations for the past five years with the air quality objective of 50µg/m³, not to be exceeded more than 35 times per year.

The results show that no exceedances of the 1-hour Air Quality Objective have been measured.

3.2.3 Particulate Matter (PM_{2.5})

Table A.8 in Appendix A presents the ratified and adjusted monitored PM_{2.5} annual mean concentrations for the past five years.

Figure A.3 sets out this information in a chart.

The results are significantly higher than the Annual Mean Concentration Target ('concentration target') - maximum concentration of 10µg/m³ to be met across England by 2040 as set out by the Environment Act 2021.

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?	Monitoring Technique	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Inlet Height (m)
UTT2	Junction Thaxted Rd & Radwinter Rd, Saffron Walden	Roadside	554357	238444	NOx, NO, NO2	NO	Chemiluminescent	0	2	1
UTT3	London Road, Saffron Walden	Roadside	553570	237908	NOx, NO, NO2; PM10; PM2.5	NO	Chemiluminescent, BAM, BAM (with Smart Heater)	6	3	2.8

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.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)
UT001	Walden PO High Street	Urban Centre	553709	238417	NO2	Yes	15.0	1.5	No	2.0
UT003	Walden Gibson Gardens	Urban Background	553554	238218	NO2	Yes	5.1	1.5	No	2.0
UT004	Walden YHA	Kerbside	553598	238595	NO2	Yes	0.8	0.4	No	2.0

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)
UT005	Walden Thaxted Road	Kerbside	554336	238454	NO2	Yes	2.4	0.5	No	2.0
UT009	Burton End	Roadside	552403	223965	NO2	No	17.0	27.0	No	2.0
UT010	Newport M11	Kerbside	551246	233649	NO2	No	40.0	0.1	No	2.0
UT011	Walden 33 High Street	Urban Centre	553697	238452	NO2	Yes	0.0	2.7	No	2.0
UT012	Walden Town Hall	Urban Background	553879	238510	NO2	Yes	20.0	0.1	No	2.0
UT015	Walden 57 High Street	Roadside	553739	238317	NO2	Yes	0.0	4.0	No	2.0
UT016	Walden Radwinter Road	Roadside	554413	238474	NO2	Yes	8.0	1.6	No	2.0
UT017	Stortford Rd Lt Canfield	Roadside	560023	221444	NO2	No	14.0	2.5	No	2.0
UT018	Stansted 17 Cambridge Road	Roadside	551035	225199	NO2	No	3.0	1.5	No	2.0
UT019	Stansted Silver Street	Roadside	550950	225039	NO2	No	3.5	2.0	No	2.0
UT020	Stansted Grove Hill	Roadside	551535	225065	NO2	No	0.0	3.3	No	2.0
UT021	Walden 41 East Street	Roadside	554212	238436	NO2	Yes	0.0	2.0	No	2.0
UT024	Takeley Hill Hatfield Forest	Rural	554671	221010	NO2	No	N/A	118.0	No	2.0
UT028	Walden London Road	Roadside	553755	238092	NO2	Yes	0.8	2.0	No	2.0
UT029	Walden Debden Road	Roadside	553770	238076	NO2	Yes	0.5	0.5	No	2.0
UT030	Walden Friends School	Kerbside	553875	237764	NO2	Yes	10.0	0.5	No	2.0
UT031	Walden Mount Pleasant Rd	Roadside	554178	237767	NO2	Yes	2.0	1.5	No	2.0
UT032	Walden Borough Lane	Roadside	553625	237856	NO2	Yes	0.0	7.0	No	2.0
UT033	Stansted Chapel Hill	Roadside	551377	224913	NO2	No	0.0	3.0	No	2.0
UT034	Takeley Four Ashes	Roadside	556101	221243	NO2	No	8.0	1.5	No	2.0
UT036	Walden Church Street	Urban Centre	553718	238530	NO2	Yes	0.0	1.0	No	2.0

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)
UT037	Walden Castle Street	Kerbside	553923	238770	NO2	Yes	1.0	1.0	No	2.0
UT039	Newport Wicken Rd/ High Street	Roadside	552154	234033	NO2	No	0.0	1.2	No	2.0
UT040	Newport Wawel Cottage	Roadside	552113	234505	NO2	No	0.0	6.0	No	2.0
UT041	Newport Rose Cottage	Roadside	552091	233630	NO2	No	0.0	3.0	No	2.0
UT042	Newport Debden Road	Roadside	552152	233878	NO2	No	0.5	0.5	No	2.0
UT043	Newport Gaces Acre	Roadside	552135	234344	NO2	No	1.0	2.0	No	2.0
UT044, UT045, UT046	Thaxted Road Co-located 3	Roadside	554357	238443	NO2	Yes	0.0	2.0	Yes	2.0
UT047, UT048, UT049	London Road Co-located 3	Roadside	553570	237908	NO2	Yes	4.0	2.5	Yes	2.0
UT050	Walden South Road	Roadside	554103	238140	NO2	Yes	4.0	4.0	No	2.0
UT051	Walden Church Street 2	Roadside	553700	238525	NO2	Yes	0.0	2.0	No	2.0
UT052	Great Easton PS	Roadside	561074	225855	NO2	No	3.0	7.0	No	2.0
UT053	Dunmow High Stile	Roadside	562329	221841	NO2	No	4.0	16.0	No	2.0
UT054	Thaxted Bardfield Road	Kerbside	561443	230778	NO2	No	N/A	1.0	No	2.0
UT055	Stansted Hampton Road	Roadside	551347	224227	NO2	No	2.0	2.0	No	2.0
UT056	Elsenham High Street	Kerbside	553765	226325	NO2	No	1.0	1.0	No	2.0

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 NO₂ Monitoring Results: Automatic Monitoring (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UTT2	554357	238444	Roadside	98.8	98.8	32.7	25	30.9	30.9	31.73
UTT3	553570	237908	Roadside	98.5	98.5	19.6	11.5	12.5	15.3	14.3

- ☒ 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 NO₂ 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 2023

Notes:

The annual mean concentrations are presented as µg/m³.

Exceedances of the NO₂ annual mean objective of 40µg/m³ 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 NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

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 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UT001	553709	238417	Urban Centre	90.4	90.4	30.0	23.9	23.1	23.9	23.3
UT003	553554	238218	Urban Background	100.0	100.0	11.1	9.1	8.5	8.7	8.0
UT004	553598	238595	Kerbside	100.0	100.0	35.1	26.9	27.1	27.5	24.0
UT005	554336	238454	Kerbside	100.0	100.0	33.9	26.0	26.6	27.1	24.4
UT009	552403	223965	Roadside	100.0	100.0	30.1	23.5	23.6	24.4	22.5
UT010	551246	233649	Kerbside	100.0	100.0	21.5	16.3	14.7	15.3	12.7
UT011	553697	238452	Urban Centre	100.0	100.0	26.3	19.9	21.7	22.0	20.6
UT012	553879	238510	Urban Background	82.7	82.7	15.5	11.0	10.8	11.6	10.3
UT015	553739	238317	Roadside	92.3	92.3	24.9	20.7	18.9	21.8	18.3
UT016	554413	238474	Roadside	82.7	82.7	30.7	23.1	24.7	26.2	23.5
UT017	560023	221444	Roadside	92.3	92.3	14.6	10.1	10.4	10.3	10.2
UT018	551035	225199	Roadside	100.0	100.0	24.4	20.0	18.6	19.2	17.9
UT019	550950	225039	Roadside	100.0	100.0	31.9	22.8	24.8	25.6	20.8
UT020	551535	225065	Roadside	100.0	100.0	30.7	25.3	25.2	24.1	20.7
UT021	554212	238436	Roadside	100.0	100.0	24.0	17.6	18.4	19.1	18.4
UT024	554671	221010	Rural	92.3	92.3	11.4	9.2	8.3	9.2	7.6
UT028	553755	238092	Roadside	100.0	100.0	31.2	24.8	25.0	25.5	23.1
UT029	553770	238076	Roadside	100.0	100.0	20.1	15.9	15.1	16.3	14.2
UT030	553875	237764	Kerbside	100.0	100.0	25.0	19.6	19.7	19.4	17.6
UT031	554178	237767	Roadside	100.0	100.0	20.7	15.2	15.8	16.2	14.6
UT032	553625	237856	Roadside	100.0	100.0	15.0	11.5	11.1	11.2	10.5
UT033	551377	224913	Roadside	100.0	100.0	23.8	18.7	20.4	20.3	19.3
UT034	556101	221243	Roadside	100.0	100.0	24.6	18.0	18.1	18.8	16.3
UT036	553718	238530	Urban Centre	100.0	100.0	18.4	14.3	13.6	14.1	13.6
UT037	553923	238770	Kerbside	100.0	100.0	22.4	16.8	15.7	16.5	14.3
UT039	552154	234033	Roadside	100.0	100.0	27.1	20.7	21.8	21.2	18.7
UT040	552113	234505	Roadside	100.0	100.0	20.5	15.5	15.3	15.8	14.1
UT041	552091	233630	Roadside	100.0	100.0	19.2	15.5	15.5	15.6	13.8
UT042	552152	233878	Roadside	100.0	100.0	24.1	18.7	17.2	17.5	16.9
UT043	552135	234344	Roadside	100.0	100.0	22.9	16.4	18.3	17.9	16.6

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 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UT044, UT045, UT046	554357	238443	Roadside	100.0	100.0	37.0	31.6	30.7	31.1	27.7
UT047, UT048, UT049	553570	237908	Roadside	100.0	100.0	<u>N/A</u>	<u>N/A</u>	13.4	14.5	12.7
UT050	554103	238140	Roadside	92.3	92.3	<u>N/A</u>	<u>N/A</u>	11.2	11.3	10.3
UT051	553700	238525	Roadside	90.4	90.4	<u>N/A</u>	<u>N/A</u>	21.5	22.8	21.4
UT052	561074	225855	Roadside	100.0	100.0	<u>N/A</u>	<u>N/A</u>	17.4	17.6	15.8
UT053	562329	221841	Roadside	84.6	84.6	<u>N/A</u>	<u>N/A</u>	12.1	12.7	11.8
UT054	561443	230778	Kerbside	100.0	100.0	<u>N/A</u>	<u>N/A</u>	14.8	15.3	13.7
UT055	551347	224227	Roadside	100.0	100.0	<u>N/A</u>	<u>N/A</u>	11.1	12.5	10.4
UT056	553765	226325	Kerbside	100.0	100.0	<u>N/A</u>	<u>N/A</u>	16.0	17.9	16.1

☒ 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 $\mu\text{g}/\text{m}^3$.

Exceedances of the NO_2 annual mean objective of $40\mu\text{g}/\text{m}^3$ are shown in **bold**.

NO_2 annual means exceeding $60\mu\text{g}/\text{m}^3$, 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%).

Table A.5 – 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UTT2	554357	238444	Roadside	98.8	98.8	8	0	0	0	0
UTT3	553570	237908	Roadside	98.5	98.5	0 (89.07)	0	0	0	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ 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 PM₁₀ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UTT3	553570	237908	Roadside	95.6	95.6	24.7	27.1	28.1	30.88	28.7

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

Notes:

The annual mean concentrations are presented as µg/m³.

Exceedances of the PM₁₀ annual mean objective of 40µg/m³ 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 PM₁₀ Monitoring Results, Number of PM₁₀ 24-Hour Means > 50µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UTT3	553570	237908	Roadside	95.6	95.6	16	8	13	32	13

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

Exceedances of the PM₁₀ 24-hour mean objective (50µg/m³ 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 (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
UTT3	553570	237908	Roadside	93.4	93.4	13.8	15.1	14.4	17.2	21

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

Notes:

The annual mean concentrations are presented as µg/m³.

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%)

Figure A.1 – Annual Mean NO₂ Trend in Saffron Walden

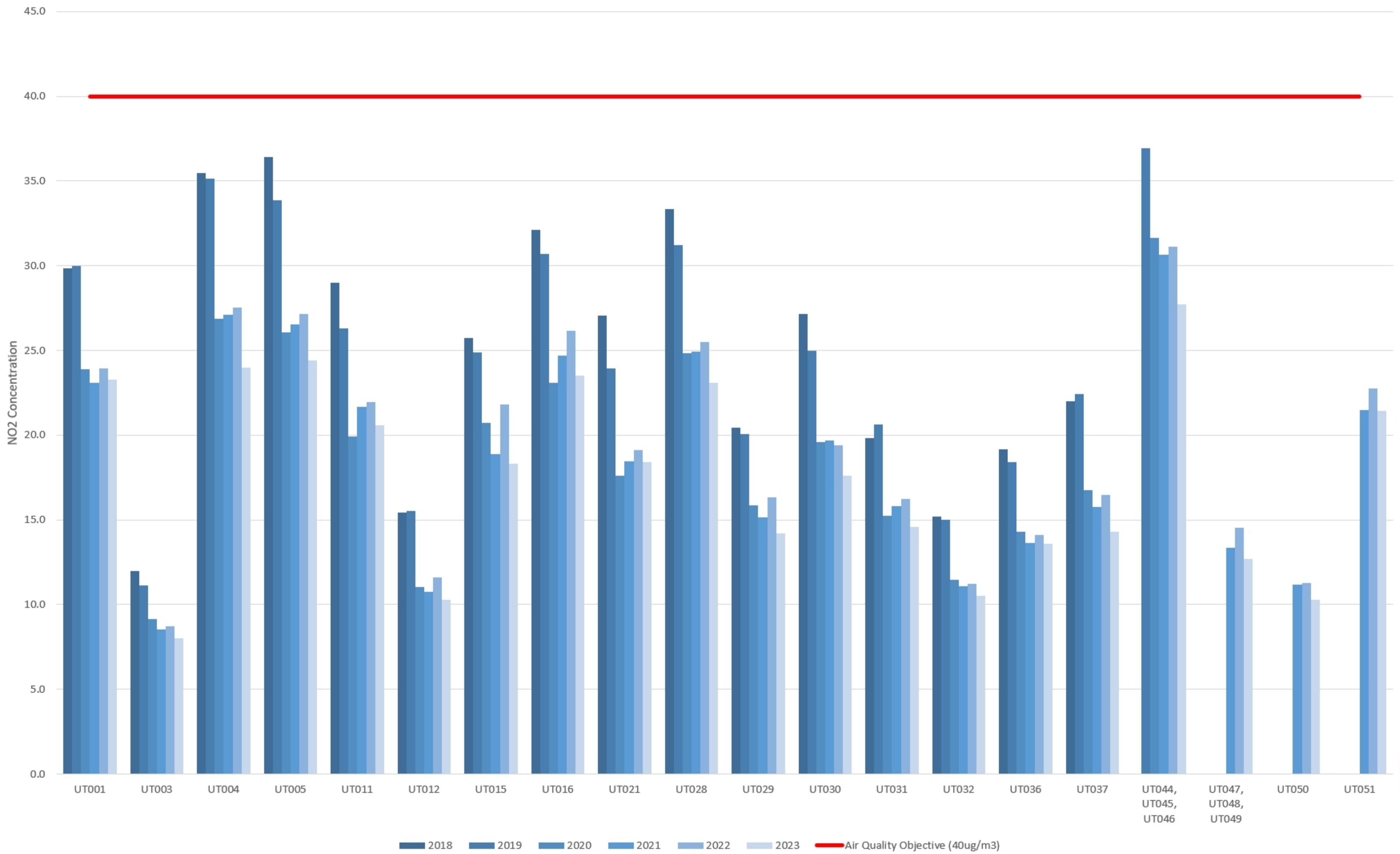


Figure A.2 – Automatic Monitoring Station Annual Mean NO₂ Trend

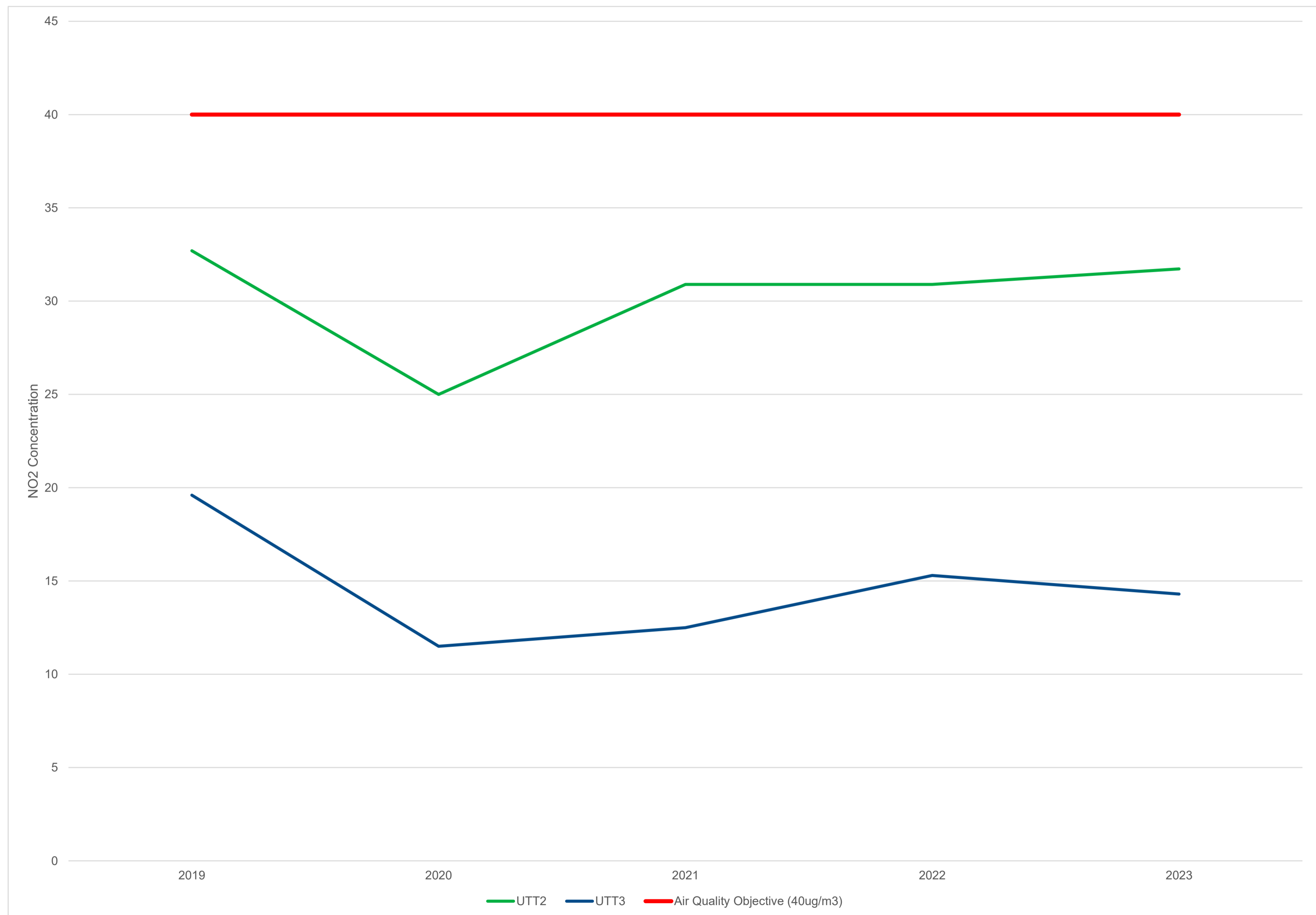
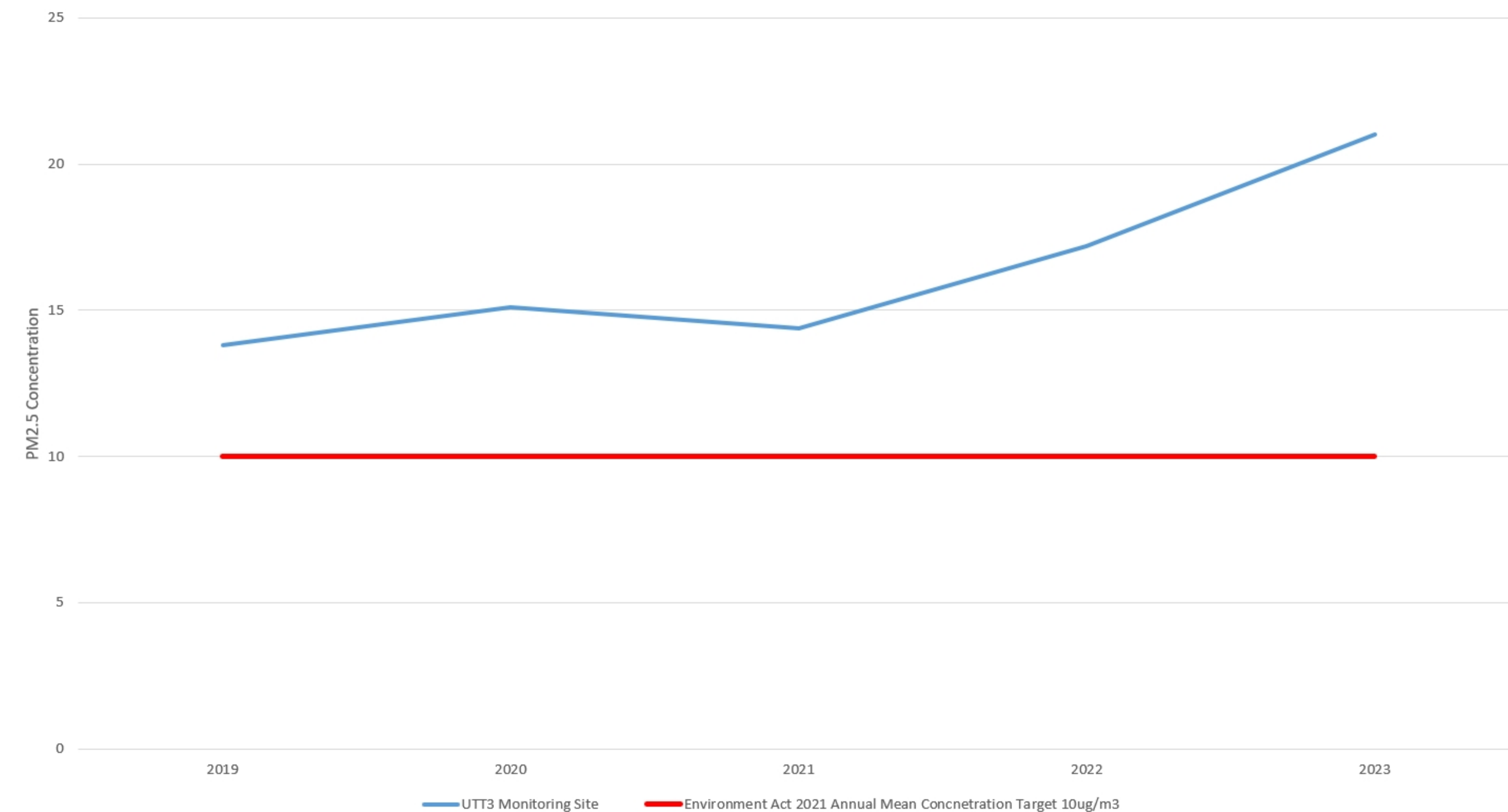


Figure A.3 – Automatic Monitoring Station Annual Mean PM2.5 Trend



Appendix B: Full Monthly Diffusion Tube Results for 2023

Table B.1 – NO₂ 2023 Diffusion Tube Results (µg/m³)

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 (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comments
UT001	553709	238417	39.9	30.0	29.4	28.7	21.7	Missing	25.6	28.1	31.4	36.1	31.8	29.6	30.2	23.3	-	
UT003	553554	238218	17.0	11.1	11.9	11.0	7.1	6.7	7.1	8.5	9.2	11.9	12.9	10.3	10.4	8.0	-	
UT004	553598	238595	41.8	30.6	29.1	31.5	23.6	25.3	28.5	28.5	35.4	39.4	32.7	27.6	31.2	24.0	-	
UT005	554336	238454	32.5	39.7	32.8	32.1	30.3	29.2	28.7	30.0	31.3	39.5	35.0	19.1	31.7	24.4	-	
UT009	552403	223965	36.9	32.2	29.2	26.0	25.1	23.4	28.6	29.6	29.9	34.9	33.9	21.6	29.3	22.5	-	
UT010	551246	233649	21.1	16.9	20.1	18.4	9.2	11.8	18.8	15.3	19.3	22.0	6.1	19.6	16.6	12.7	-	
UT011	553697	238452	35.5	33.4	28.3	25.0	23.9	20.9	22.2	26.2	24.1	27.9	30.7	23.1	26.8	20.6	-	
UT012	553879	238510	17.9	18.8	14.2	13.3	8.6	9.3	9.1	10.5	13.1	18.6	Missing	Missing	13.3	10.3	-	
UT015	553739	238317	23.7	23.3	26.5	21.3	Missing	16.5	22.8	23.6	24.6	31.1	23.9	24.6	23.8	18.3	-	
UT016	554413	238474	39.6	Missi ng	Missing	32.8	23.0	29.8	30.8	30.2	36.1	32.8	26.8	23.5	30.5	23.5	-	
UT017	560023	221444	18.0	15.4	12.9	11.3	10.9	9.7	Missi ng	12.6	11.7	18.8	14.8	9.8	13.3	10.2	-	
UT018	551035	225199	33.3	29.3	24.0	20.5	16.3	17.0	17.5	19.7	27.6	29.0	27.0	18.0	23.3	17.9	-	
UT019	550950	225039	31.0	39.0	28.9	27.2	22.5	23.9	22.5	26.3	29.5	30.0	24.1	20.0	27.1	20.8	-	
UT020	551535	225065	30.8	31.2	25.7	27.4	23.5	25.8	27.1	28.8	22.9	34.4	25.4	19.1	26.8	20.7	-	
UT021	554212	238436	27.8	30.0	25.0	23.3	22.4	22.1	17.8	20.4	25.2	28.0	26.4	18.2	23.9	18.4	-	
UT024	554671	221010	15.8	14.3	11.0	9.3	7.9	8.2	8.3	8.3	Missing	11.4	11.2	2.8	9.9	7.6	-	
UT028	553755	238092	39.3	36.1	31.8	22.2	27.3	23.9	27.3	28.0	30.0	35.8	33.3	25.4	30.0	23.1	-	
UT029	553770	238076	25.2	20.4	18.6	18.6	13.4	13.0	12.7	15.8	20.2	25.3	23.9	14.3	18.5	14.2	-	
UT030	553875	237764	28.9	29.9	24.4	26.7	20.1	25.7	16.3	16.1	22.4	29.4	18.3	16.8	22.9	17.6	-	
UT031	554178	237767	25.8	17.9	18.7	17.5	12.6	16.9	15.0	15.7	18.4	25.3	27.6	16.2	19.0	14.6	-	
UT032	553625	237856	19.8	21.1	14.5	11.4	8.4	9.3	9.1	10.0	12.0	17.5	17.7	12.4	13.6	10.5	-	
UT033	551377	224913	28.7	30.4	26.4	25.9	25.0	24.2	14.6	19.6	32.7	32.5	23.0	17.5	25.0	19.3	-	
UT034	556101	221243	28.9	22.0	23.4	21.2	17.1	23.6	16.7	20.2	20.9	26.0	18.0	15.9	21.2	16.3	-	
UT036	553718	238530	23.6	22.6	19.9	16.0	10.7	11.9	12.8	15.3	17.2	26.0	19.5	16.6	17.7	13.6	-	
UT037	553923	238770	25.7	25.1	21.5	19.1	13.4	13.5	12.6	16.7	18.4	24.0	16.9	15.6	18.5	14.3	-	
UT039	552154	234033	34.9	27.7	27.1	20.8	24.3	19.1	17.8	21.9	22.7	27.5	30.6	16.5	24.2	18.7	-	
UT040	552113	234505	25.3	24.1	20.3	15.7	14.6	13.6	16.0	17.6	18.5	21.4	19.8	13.5	18.4	14.1	-	
UT041	552091	233630	27.5	25.9	21.4	17.4	14.8	15.5	13.0	15.8	18.0	25.3	6.5	14.6	18.0	13.8	-	
UT042	552152	233878	29.5	24.7	24.8	23.4	15.2	17.4	20.0	18.8	24.4	25.4	26.2	13.0	21.9	16.9	-	
UT043	552135	234344	29.9	29.0	22.8	22.8	19.8	17.3	14.4	17.2	18.8	26.2	25.3	15.6	21.6	16.6	-	
UT044	554357	238443	39.3	24.4	39.1	36.6	33.6	35.5	33.5	38.8	42.8	42.0	30.7	26.5	-	-	-	Triplicate Site with UT044, UT045 and UT046 - Annual

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 (0.77)	Annual Mean: Distance Corrected to Nearest Exposure	Comments
																		data provided for UT046 only
UT045	554357	238443	41.9	37.4	37.9	36.1	29.2	37.2	33.0	37.2	41.7	34.6	39.2	30.6	-	-	-	Triplicate Site with UT044, UT045 and UT046 - Annual data provided for UT046 only
UT046	554357	238443	42.7	37.4	39.5	36.9	32.6	38.0	33.7	37.3	43.0	36.5	33.0	26.7	36.0	27.7	-	Triplicate Site with UT044, UT045 and UT046 - Annual data provided for UT046 only
UT047	553570	237908	22.3	22.5	21.2	17.9	11.0	11.5	9.4	12.0	15.9	18.9	20.7	15.9	-	-	-	Triplicate Site with UT047, UT048 and UT049 - Annual data provided for UT049 only
UT048	553570	237908	22.6	18.8	19.0	17.7	10.6	11.9	9.2	12.8	15.9	19.9	21.1	14.3	-	-	-	Triplicate Site with UT047, UT048 and UT049 - Annual data provided for UT049 only
UT049	553570	237908	22.0	20.7	20.3	18.0	10.0	12.4	10.3	12.9	16.5	20.8	20.0	15.7	16.5	12.7	-	Triplicate Site with UT047, UT048 and UT049 - Annual data provided for UT049 only
UT050	554103	238140	21.2	19.3	13.0	11.4	Missing	8.3	8.1	8.5	11.7	15.5	19.1	10.6	13.3	10.3	-	
UT051	553700	238525	34.8	32.3	Missing	27.8	22.1	19.5	21.8	25.7	29.4	34.0	31.8	27.1	27.8	21.4	-	
UT052	561074	225855	27.9	24.4	20.3	16.8	14.9	12.5	16.6	22.8	19.7	24.5	25.5	20.1	20.5	15.8	-	
UT053	562329	221841	21.5	19.8	15.2	Missing	Missing	9.8	11.3	11.3	12.8	17.8	20.9	12.5	15.3	11.8	-	
UT054	561443	230778	22.3	19.1	18.3	16.1	9.9	13.4	14.9	16.7	18.5	24.6	22.8	16.9	17.8	13.7	-	
UT055	551347	224227	16.8	20.2	14.6	9.4	8.4	9.9	9.7	10.3	14.7	20.8	16.2	11.1	13.5	10.4	-	
UT056	553765	226325	27.1	27.9	22.6	19.5	13.9	16.3	14.4	19.0	22.2	24.5	23.7	19.4	20.9	16.1	-	

- ☒ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1
- ☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22
- ☒ National bias adjustment factor used
- ☒ Where applicable, data has been distance corrected for relevant exposure in the final column
- ☒ Uttlesford District Council confirms that all 2023 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System

Notes:

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

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 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 Uttlesford 2023

Uttlesford District Council confirms that in 2023, no new or changed sources that significantly affect air quality have been identified.

Additional Air Quality Works Undertaken by Uttlesford District Council During 2023

QA/QC of Diffusion Tube Monitoring

- Uttlesford District Council undertook monitoring at 39 sites in 2023.
- Uttlesford District Council adheres with the Diffusion Tube Monitoring Calendar
- The diffusion tubes were supplied by Socotec Didcot (UKAS Testing Laboratory number 1015) with a preparation method of 50% triethanolamine (TEA) in Acetone.
- The AIR NO₂ proficiency testing scheme found that the laboratory achieved the following percentage of results determined as satisfactory for 2023.

Diffusion Tube Annualisation

Annualisation is required for any site with data capture less than 75% but greater than 25%.

In 2023, no diffusion tube monitoring site required annualisation.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2023 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/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Uttlesford District Council have applied the national bias adjustment factor of 0.77 to the 2023 monitoring data to maintain consistency with Councils in Essex. A summary of bias adjustment factors used by Uttlesford District Council over the past five years is in Table C..

Table C.1 – Bias Adjustment Factor

Monitoring Year	Local or National	Diffusion Tube Preparation	Version of National Spreadsheet	Adjustment Factor
2023	National	Socotec 50% TEA in Acetone	03/24	0.77
2022	National	Socotec 50% TEA in Acetone	03/23	0.76
2021	National	Socotec 50% TEA in Acetone	03/22	0.78
2020	National	Socotec 50% TEA in Acetone	03/21	0.77
2019	National	Socotec 50% TEA in Acetone	03/20	0.75

NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO₂ concentrations corrected for distance are presented in Table B..

No diffusion tube sites within Uttlesford required distance correction during 2023.

QA/QC of Automatic Monitoring

Uttlesford District Council operates two automatic monitoring sites.

The monitor at the Thaxted Road and Radwinter Road junction in Saffron Walden measures NO₂, PM_{2.5} and PM₁₀.

The London Road, Saffron Walden site Measures NO₂. Data from these sites is collected by a contractor.

Daily data validation checks are made to ensure the analysers are working correctly and to identify any abnormal readings that may occur. Monitoring data is forwarded to the Council.

The automatic monitoring station equipment is serviced every six months by a contractor who also carries out maintenance callouts when faults are identified.

The nitrogen dioxide analysers are calibrated monthly with a certified reference gas. Particulate monitors have their filter tapes changed every two months. All automatic monitoring sites are colocated with triplicate NO₂ diffusion tubes.

Data ratification for the analyser contains following processes;

- Applying the scaling factors derived from calibrations, maintenance visits and servicing
- Checking for equipment drift with adjustments made where detected
- Comparison with datasets from other appropriate Essex Air monitoring sites
- Checking for and deletion of erroneous data that can be linked to analyser fault or failure.

Automatic Monitoring Annualisation

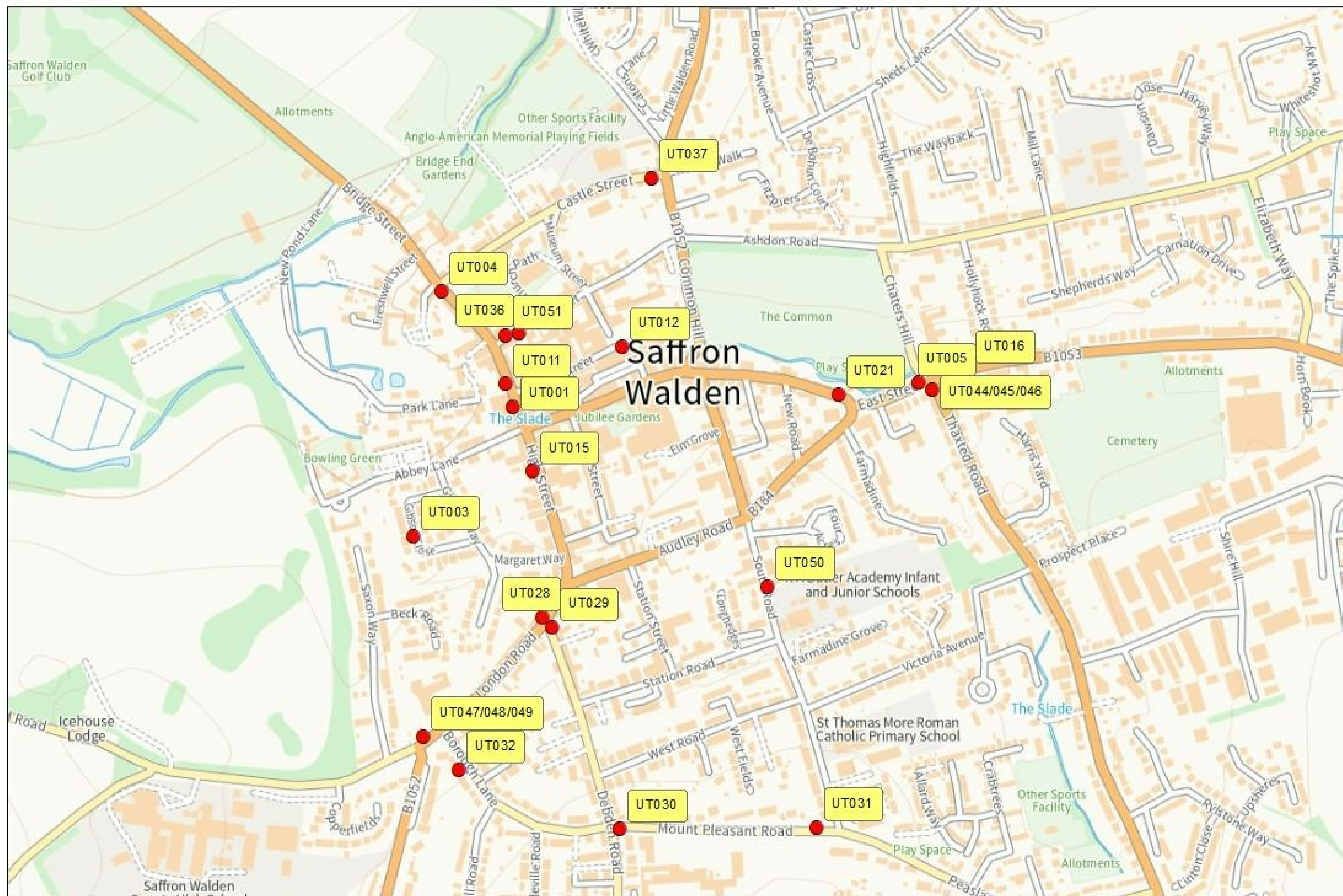
The automatic monitoring station in Uttlesford recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data.

NO₂ Fall-off with Distance from the Road

The automatic monitoring station in Uttlesford is representative of exposure. It has not been necessary to correct the automatic annual mean NO₂ concentrations for distance.

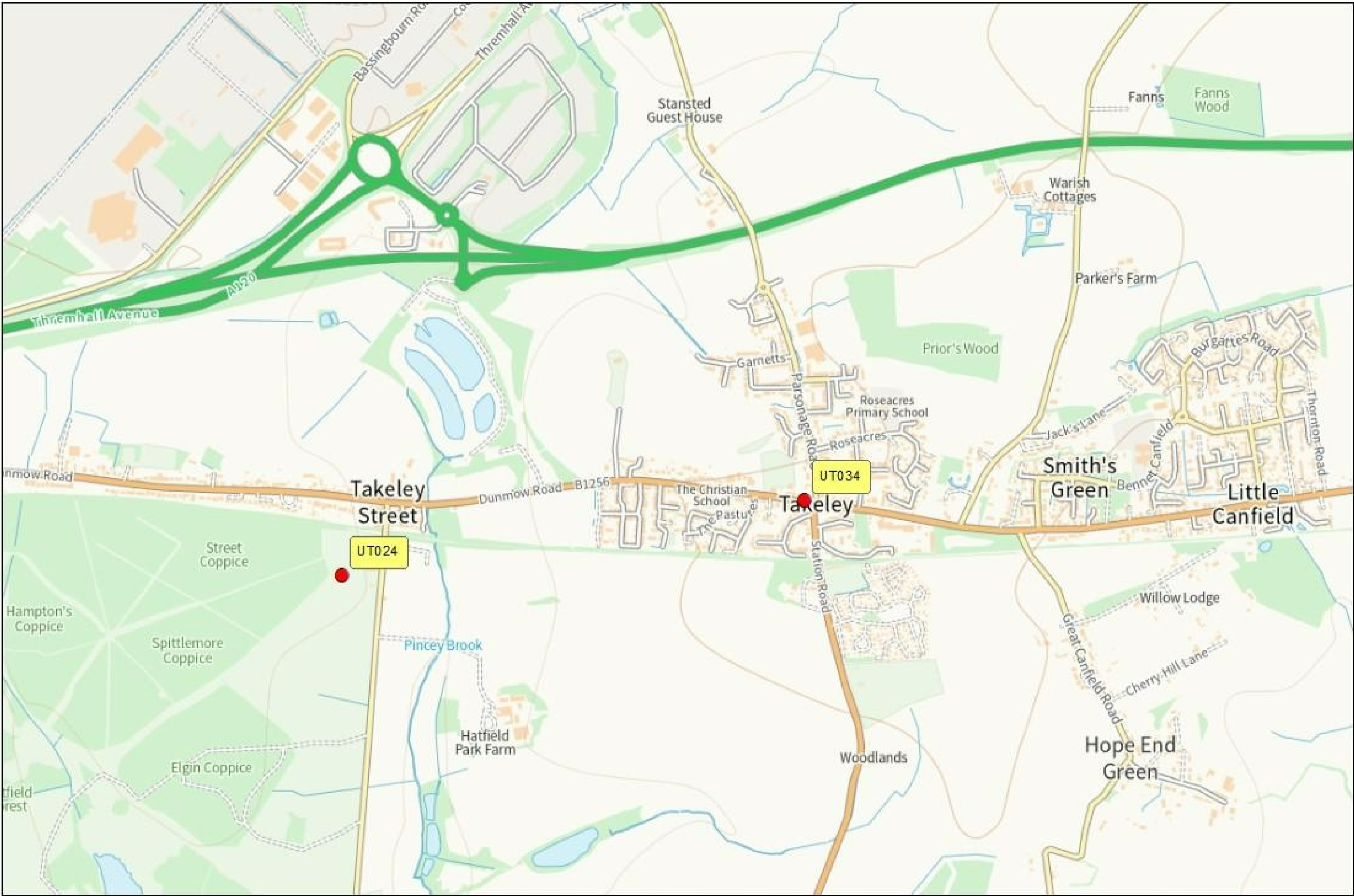
Appendix D: Maps of Monitoring Locations

Figure D.1 – Map of Non-Automatic Monitoring Sites: Saffron Walden



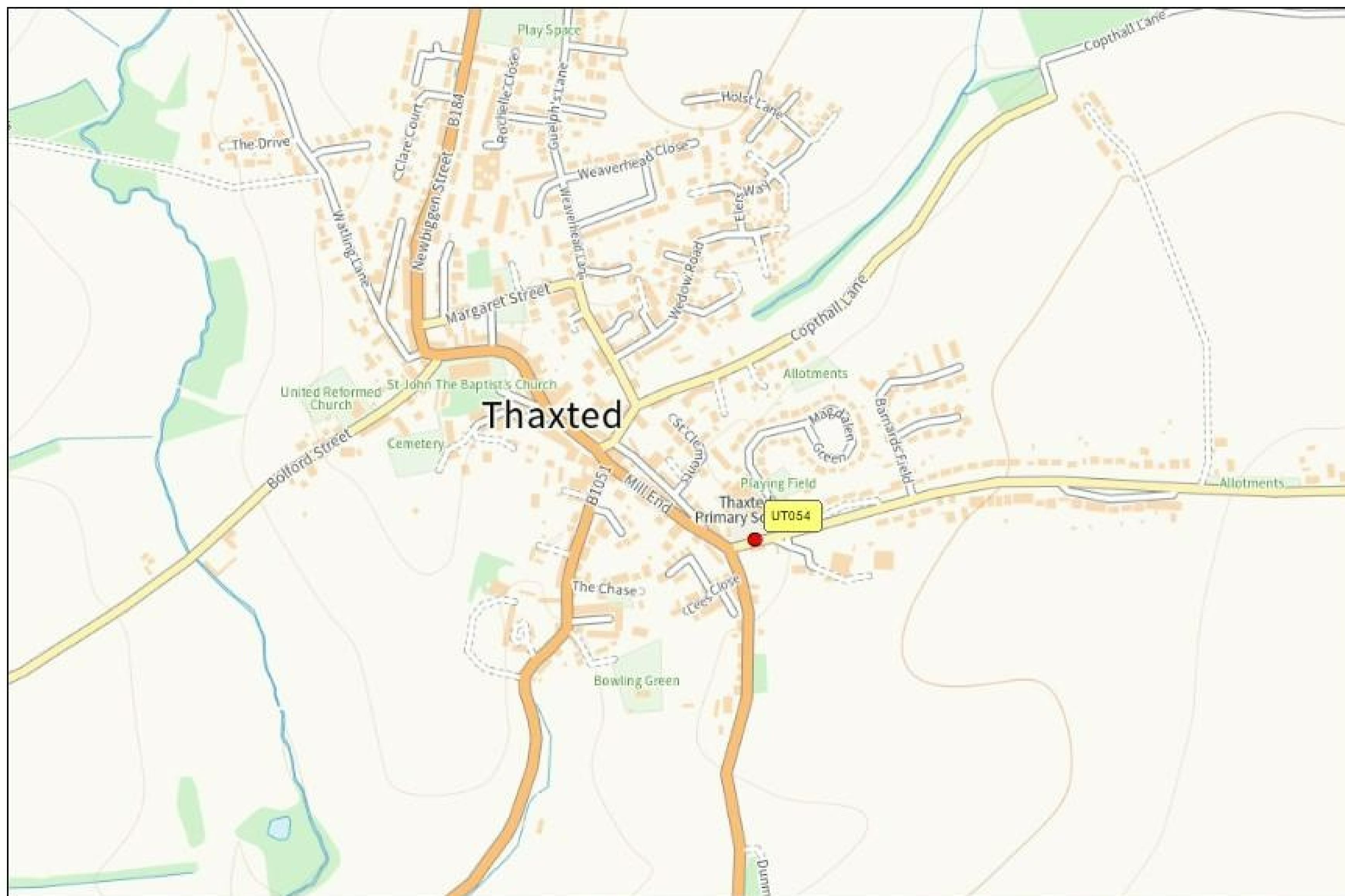
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Figure D.2 – Map of Non-Automatic Monitoring Sites: Takeley



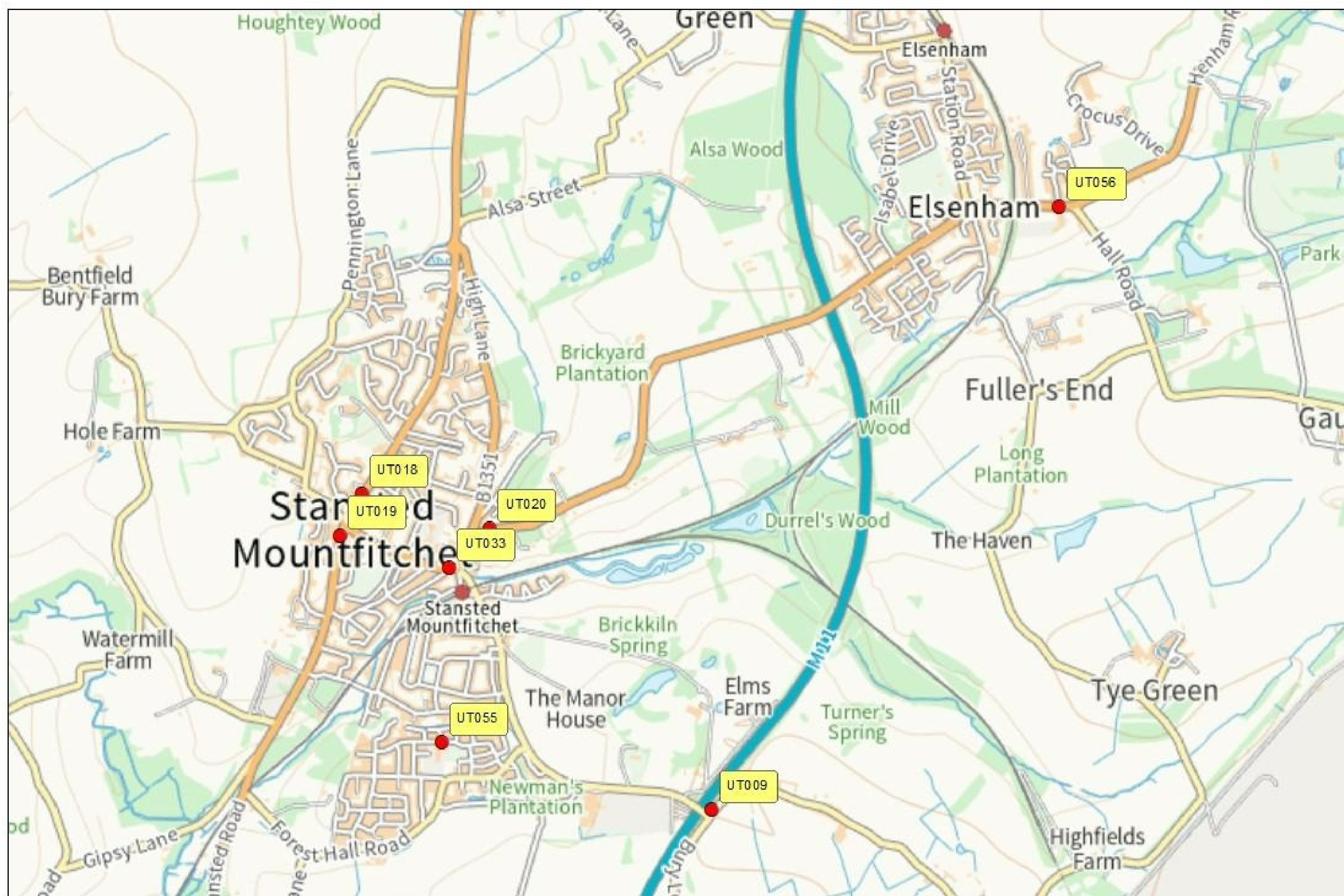
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Figure D.3 – Map of Non-Automatic Monitoring Sites: Map of Non-Automatic Monitoring Sites: Thaxted



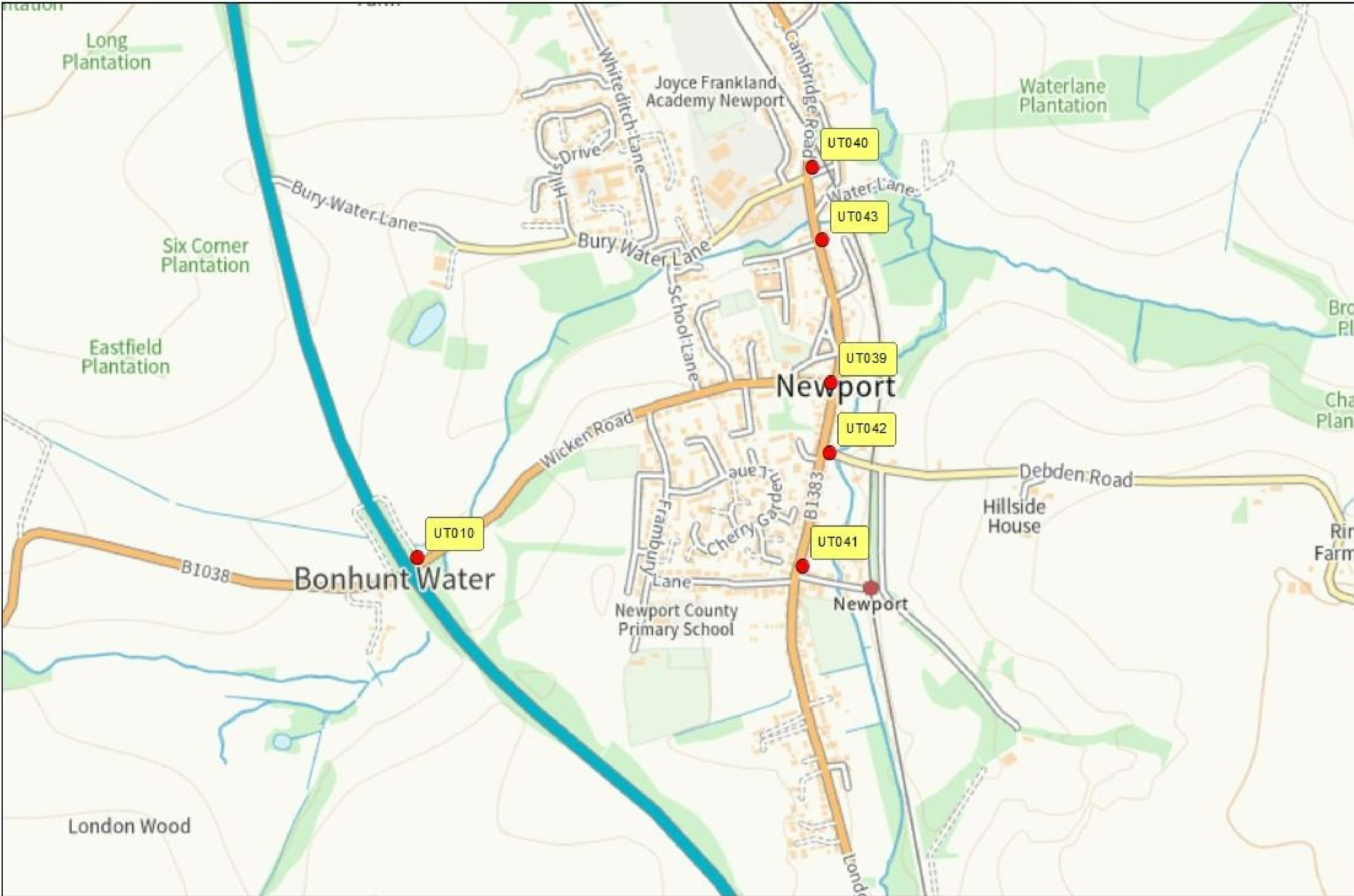
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Figure D.4 – Map of Non-Automatic Monitoring Sites: Map of Non-Automatic Monitoring Sites: Stansted & Elsenham



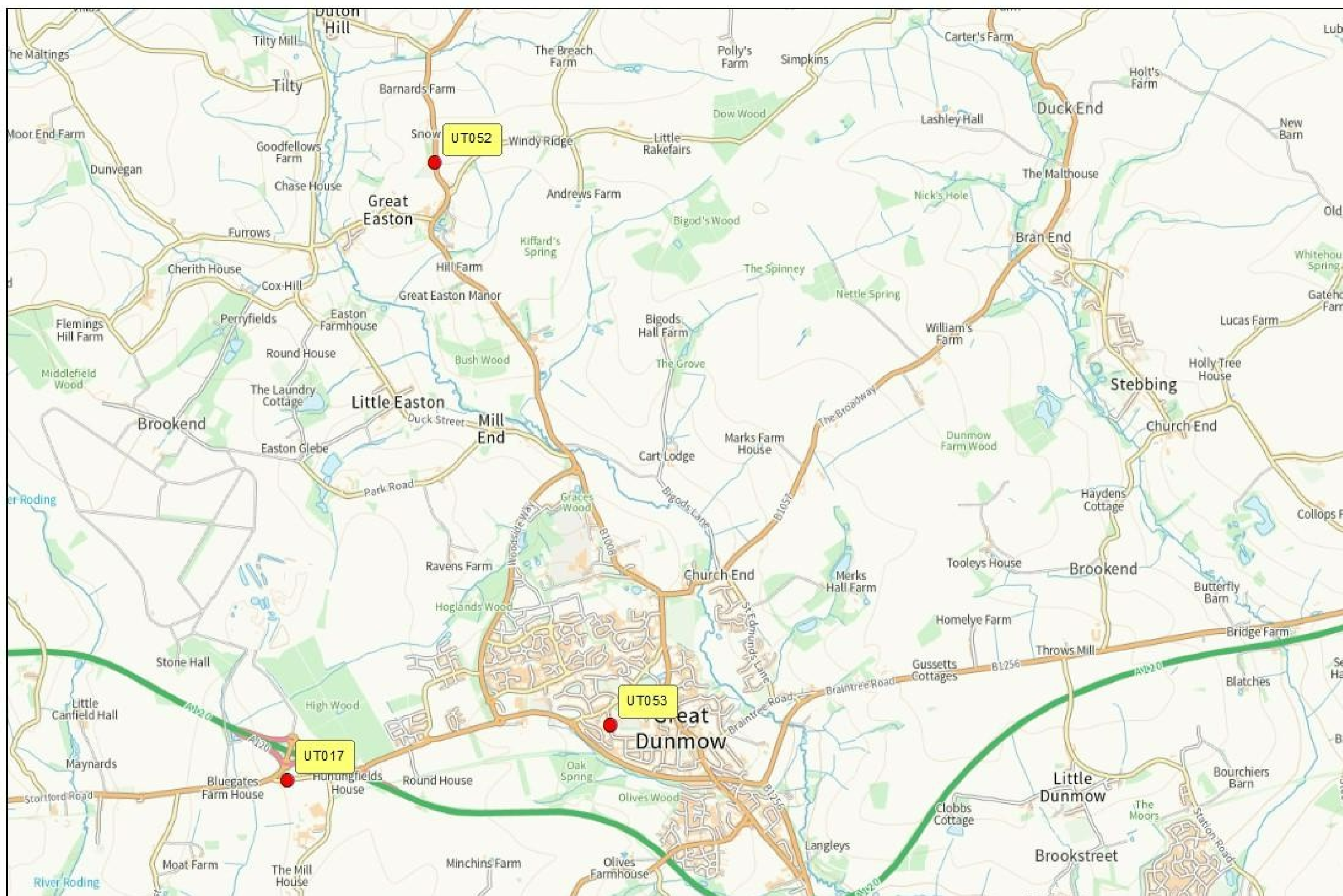
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Figure D.5 – Map of Non-Automatic Monitoring Sites: Map of Non-Automatic Monitoring Sites: Newport

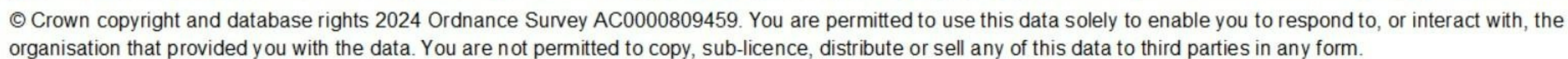


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Figure D.6 – Map of Non-Automatic Monitoring Sites: Map of Non-Automatic Monitoring Sites: Great Dunmow & Great Easton



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Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England⁴

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

⁴ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Appendix F: 2024 AQMA Revocation Order



**UTTLESFORD DISTRICT COUNCIL ORDER
ENVIRONMENT ACT 1995 Part IV SECTION 83(2)(b)
ORDER REVOKING AN AIR QUALITY MANAGEMENT AREA**

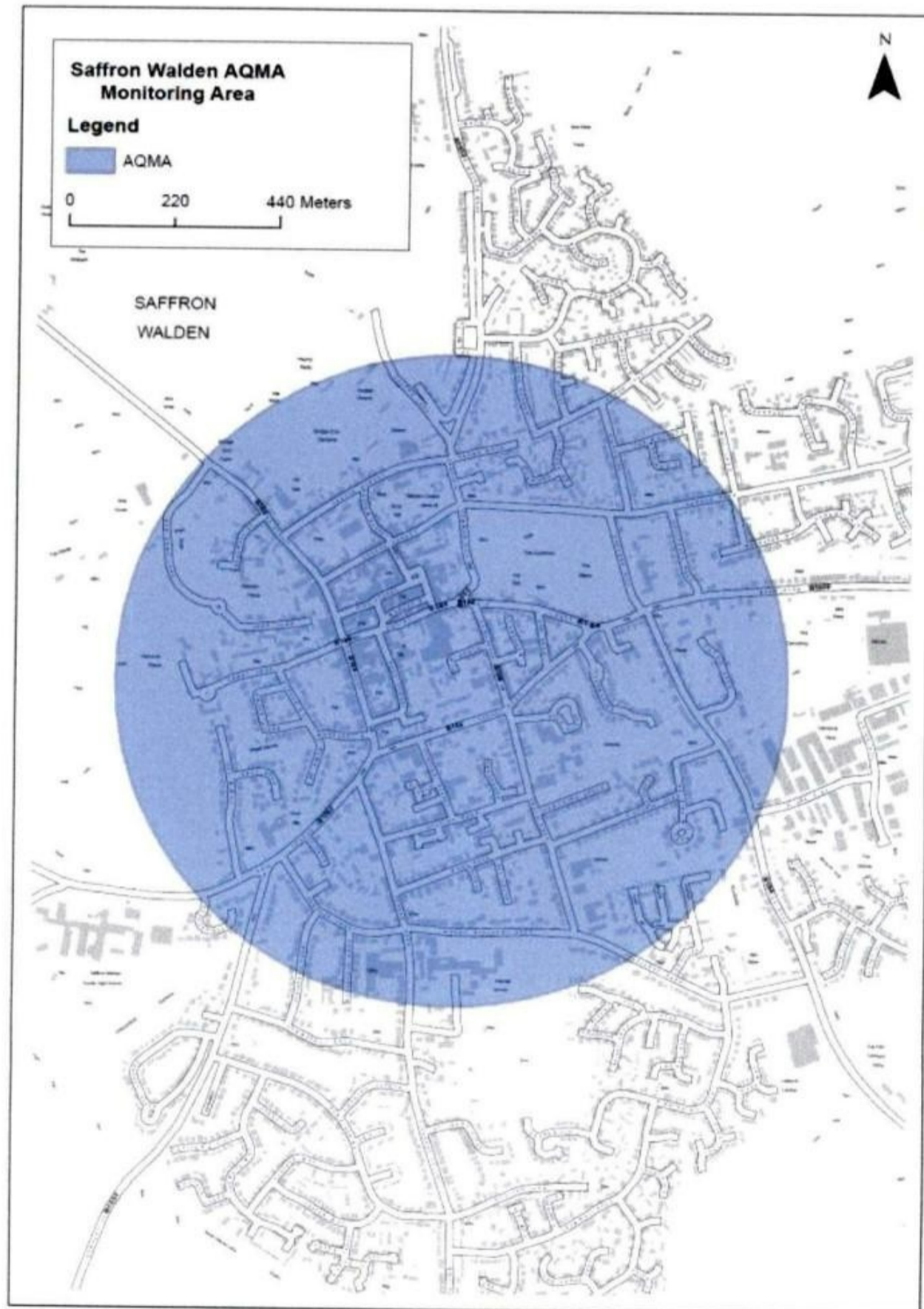
Uttlesford District Council, in exercise of the powers conferred on it by Section 83(2)(b) of the Environment Act 1995 HEREBY makes the following order:

1. The Order shall revoke the area known as the Air Quality Management Area for Nitrogen Dioxide at Saffron Walden, as shown in the attached map, being centred on Elm Grove in Saffron Walden town centre, and extending in a circle of 1400 meters diameter from that point.
2. The Order shall come into force on 19th March 2024.

The Common Seal of UTTLESFORD DISTRICT COUNCIL was hereto affixed on DATE and signed in the presence of



Authorised Signatory



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'
AQIA	Air Quality Impact Assessment – Reports provided in support of planning applications.
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	Air Quality Annual Status Report
CVTF	Clean Vehicle Technology Fund – A DfT fund that provides grants for upgrading vehicles to reduce emissions in areas of poor air quality
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
EU	European Union
Euro Standard	Euro standards define the acceptable limits for exhaust emissions of new vehicles sold in EU and EEA member states.
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SCRT	Selective Catalytic Reduction Technology – Retrofitted equipment to reduce bus emissions
Street Canyon	Road which is flanked by buildings resembling a canyon
TEA	Triethanolamine – substance used in diffusion tubes for absorbing nitrogen dioxide
UK-AIR	An information resource providing in-depth information on air quality and air pollution in the UK. A range of information is available, from the latest pollution levels , pollution forecast information , a data archive , and details of the various monitoring networks .
UKAS	United Kingdom Accreditation Service

References

- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra available at; <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery>
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency available at; <https://www.gov.uk/government/publications/chemical-hazards-and-poisons-report-issue-28>
- Defra Air Quality Grant available at; <https://www.gov.uk/government/news/107-million-in-funding-for-local-authorities-to-improve-air-quality>
- Essex Air website available at; <https://essexair.org.uk/>
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- Local Air Quality Management NO2 Proficiency Scheme available at; https://laqm.defra.gov.uk/wp-content/uploads/2023/11/LAQM-NO2-Performance-data_Up-to-Oct-2023_V1_Final.pdf
- Public Health Framework available at; <https://fingertips.phe.org.uk/profile/public-health-outcomes-framework>
- Saffron Walden Clean Air Project available at; <https://www.uttlesford.gov.uk/article/8953/Saffron-Walden-Clean-Air-Project>
- Uttlesford District Council 2023 Annual Status Report available at; https://cdn.cms42.com/essexair/uttlesford/Files/Reports/Uttlesford_2023_Annual_Status_Report.pdf
- Uttlesford District Council Saffron Walden AQMA Revocation Order