


2014 Air Quality Progress Report for **Uttlesford District Council**

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

April 2014

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Report Reference number	UDC/PR2014
Date	22nd April 2014

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Executive Summary

The 2014 Progress Report is designed to fulfil Uttlesford District Councils 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.

Air Quality within AQMAs

Automatic monitoring has identified no exceedences of the nitrogen dioxide annual mean air quality objective of $40\mu\text{g}/\text{m}^3$ or 1 hour mean air quality objective of $200\mu\text{g}/\text{m}^3$ at public exposure within the existing Saffron Walden AQMA in 2013.

Non-automatic monitoring has identified two exceedences of the nitrogen dioxide annual mean air quality objective of $40\mu\text{g}/\text{m}^3$ in 2013. These exceedences when scaled to relevant exposure were within the air quality objectives although it should be noted that they were still above $36\mu\text{g}/\text{m}^3$ and can be considered borderline with the objective.

Air Quality outside AQMAs

Automatic and non-automatic monitoring has indicated no exceedences of the nitrogen dioxide annual mean air quality objective of $40\mu\text{g}/\text{m}^3$ or the 1-hour mean air quality objective of $200\mu\text{g}/\text{m}^3$ in 2013 at relevant exposure within the Uttlesford District Council area excluding the Saffron Walden AQMA.

This report confirms that there is no requirement to conduct a Detailed Assessment for any pollutant and the next round of reporting will be the USA which will be delivered in April 2015.

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Appendix 3 Uttlesford District Council Prescribed Processes 2013

1 Introduction

1.1 Description of Local Authority Area

The district of Uttlesford is predominantly 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.

1.2 Purpose of Progress Report

This report fulfils the requirements of the Local Air Quality Management (LAQM) process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 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 exceedences are considered likely, the local authority must then 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 pursuit of the objectives.

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the LAQM process.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, then the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM **in England** are set out in the Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043), and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (milligrammes per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in England

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m ³	Running annual mean	31.12.2003
	5.00 µg/m ³	Annual mean	31.12.2010
1,3-Butadiene	2.25 µg/m ³	Running annual mean	31.12.2003
Carbon monoxide	10 mg/m ³	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m ³	Annual mean	31.12.2004
	0.25 µg/m ³	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m ³	Annual mean	31.12.2005
Particulate Matter (PM ₁₀) (gravimetric)	50 µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m ³	Annual mean	31.12.2004
Sulphur dioxide	350 µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4 Summary of Previous Review and Assessments

Table 1.2 Summary of Previous Reviews and Assessment

Round	Date(s)	Summary
1	1998-2002	Concluded that all Air Quality Objectives would be met for all pollutants. No AQMAs declared. The main sources of emissions of Nitrogen Dioxide and PM ₁₀ in the District were found to be vehicles on the M11 and A120.
2	2003-2005	The USA concluded that Air Quality Objectives would be met for all pollutants. No AQMAs declared. Progress Reports in 2004 and 2005 confirmed this conclusion.
3	2006	The USA concluded that the annual mean Nitrogen Dioxide Air Quality Objectives would be exceeded at three junctions in Saffron Walden and a Detailed Assessment would be required.
	2007	The Detailed Assessment confirmed the findings of the USA and three AQMAs were declared for the three junctions for annual mean Nitrogen Dioxide exceedances.
	2008	The Progress Report for 2008 concluded that the Air Quality Objectives for all pollutants would be met outside of the newly declared AQMAs.
4	2009	The USA concluded that the Air Quality Objectives for all pollutants would be met outside of the newly declared AQMAs.
	2010	The Progress Report concluded that exceedances of annual mean Nitrogen Dioxide Air Quality Objectives had occurred at five monitoring locations in 2009. Two locations (Debden Road and Burton End) were located outside of the AQMAs. Additional monitoring was undertaken to confirm the extent of the exceedances outside the AQMAs.
	2011	The Progress Report concluded that Air Quality Objectives would be met for all pollutants outside of the AQMAs except at the location of the additional tubes on Debden Road and Burton End. The additional tubes had confirmed that there were exceedances of the annual mean Nitrogen Dioxide Air Quality Objectives and a Detailed Assessment was recommended to be undertaken for London Road / Burton End.

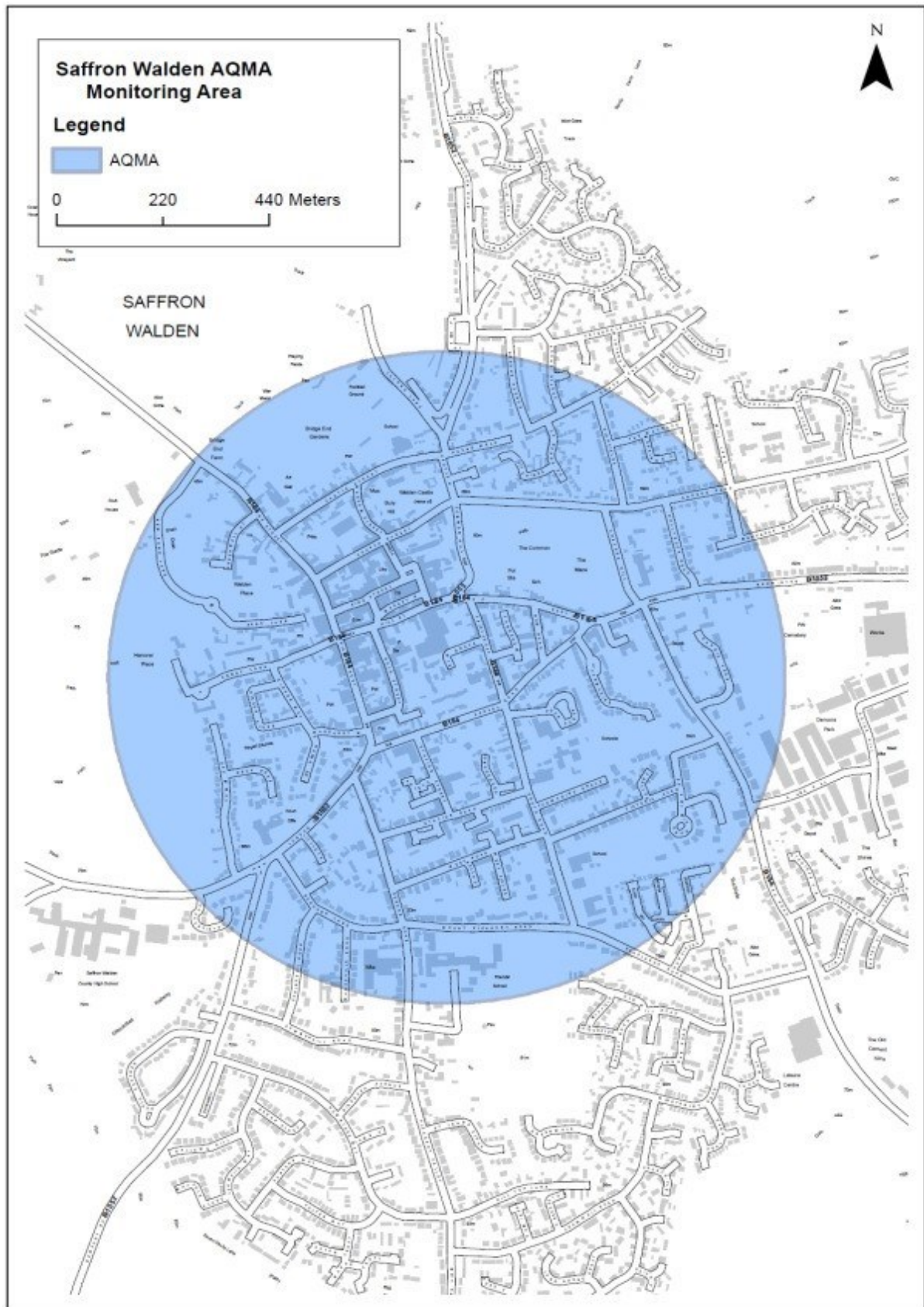
Round	Date(s)	Summary
5	2012	The USA for Uttlesford District Council concluded that a Detailed Assessment or any additional monitoring is not required for any pollutant. Exceedances of the annual mean Nitrogen Dioxide Air Quality Objectives occurred at two non-automatic monitoring sites within the District but both of these sites are located within an existing AQMA. The monitoring undertaken within the District has shown that there were no other exceedances of the Air Quality Objectives.
	2013	The Progress Report identified three exceedances of the annual mean Nitrogen Dioxide Air Quality Objectives. These were located within the AQMA. Further monitoring undertaken within the District has shown that there were no other exceedances of Air Quality Objectives.

Due to the exceedances of the Nitrogen Dioxide annual mean Air Quality Objective in 2010, the Saffron Walden Air Quality Management Area (AQMA) was approved at an Uttlesford District Council cabinet meeting and subsequently declared in May 2012. The annual mean objective applies to all locations where the public would be present for at least 6 months of a year, and would therefore include the building facades of residential properties, termed relevant receptors. The 1-hour mean objective applies to all locations where the public may be likely to stay for 1 hour or more such as a shopping street, and measurements have shown that it is unlikely to be exceeded unless the annual mean nitrogen dioxide (NO₂) concentration is greater than 60 µg/m³

The purpose of an AQMA is to define an area where action is needed to reduce or prevent an increase in pollutant levels. Where developments take place in an AQMA, or are likely to impact on an AQMA, the Council will require an Air Quality Assessment and mitigation measures must be considered.

The single AQMA replaced three existing AQMAs in Saffron Walden and encompasses the areas where exceedances were recorded in 2010. A map showing the location of the AQMA is shown in Figure 1.1.

Figure 1.1 Map of Saffron Walden AQMA



2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Uttlesford District Council has two automatic monitoring sites.

Table 2.1 Details of Automatic Monitoring Sites

Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Relevant Exposure?	Distance to kerb of nearest road	Worst-case exposure?
Saffron Walden	Urban Centre	553823	238408	NO ₂ , PM ₁₀ , PM _{2.5}	Y	Y (25m)	5	N
Takeley	Urban Background	556234	221496	NO ₂ , PM ₁₀ , PM _{2.5} , O ₃	N	Y (15m)	50	N

Saffron Walden PM₁₀ January to June 2013 / PM_{2.5} July to December 2013

Takeley PM₁₀ July to December 2013 / PM_{2.5} January to June 2013

The mapped locations of the automatic monitoring sites are shown in Figure 2.2

2.1.2 Non-Automatic Monitoring Sites

Uttlesford District Council undertook monitoring at 22 Nitrogen Dioxide diffusion tubes sites. Details are presented in Table 2.2. The locations are shown in Figures 2.3, 2.4 & 2.5. Raw monthly data can be found in Appendix 2.

Table 2.2 Details of Non-Automatic Monitoring Sites

Site ID	Site Name	X	Y	Pollutants Monitored	In AQMA?	Relevant Exposure? (distance to relevant exposure (m))	Distance to kerb of nearest road (m)	Worst case?
UT001	Walden 1 PO High Street	553710	238415	NO2	Y	N	1.5	Y
UT002	Airport 1 Thatched Cottage	552706	221403	NO2	N	Y (1)	10	Y
UT003	Walden 3 Gibson Gardens	553552	238219	NO2	Y	Y (5.1)	1.5	Y
UT004	Walden 4 YHA	553594	238599	NO2	Y	Y (0.8)	1.4	Y
UT005	Walden 5 Thaxted Road	554332	238450	NO2	Y	Y (2.4)	0.5	Y
UT006	Stansted	551358	225452	NO2	N	Y (0)	3.9	Y
UT007	Airport 2 Rose Cottage	556186	223724	NO2	N	Y (0)	7.5	Y
UT008	Hallingbury	551189	217438	NO2	N	N	29.1	N/A
UT009	Burton End	552403	223965	NO2	N	N	9.3	N/A
UT010	Newport	551255	233649	NO2	N	N	0	N/A
UT011	Walden 11 33 High Street	553697	238452	NO2	Y	Y (0)	2.7	Y
UT012	Walden 12 Town Hall	553878	238509	NO2	Y	N	0.2	Y
UT013/14/27*	Fire Station Co-located	553823	238408	NO2	Y	N	4.1	N
UT024	Takeley Hill Hatfield Forest	554671	221010	NO2	N	N	117.5	N/A
UT025	Elman's Green Hatfield Forest	553271	221072	NO2	N	N	183.1	N/A
UT026	South Gate Hatfield Forest	553141	218694	NO2	N	N	138	N/A
UT028	Walden 16 London Road	553751	238086	NO2	Y	Y (0.8)	2	Y
UT029	Walden 17 Debden Road	553770	238076	NO2	Y	Y (0.8)	2	Y
UT030	Walden 18 Friends School	553875	237763	NO2	Y	Y (15)	3	Y
UT031	Walden Peaslands Rd	554193	237756	NO2	Y	Y(2)	1.5	Y
UT032	Walden Borough Lane	553619	237869	NO2	Y	Y(0)	7	Y
UT033	Stansted Chapel Hill	551377	224913	NO2	N	Y(0)	1.5	Y

Figure 2.3 Diffusion tube locations within Saffron Walden AQMA



Figure 2.4 Diffusion tube locations within the Uttlesford District

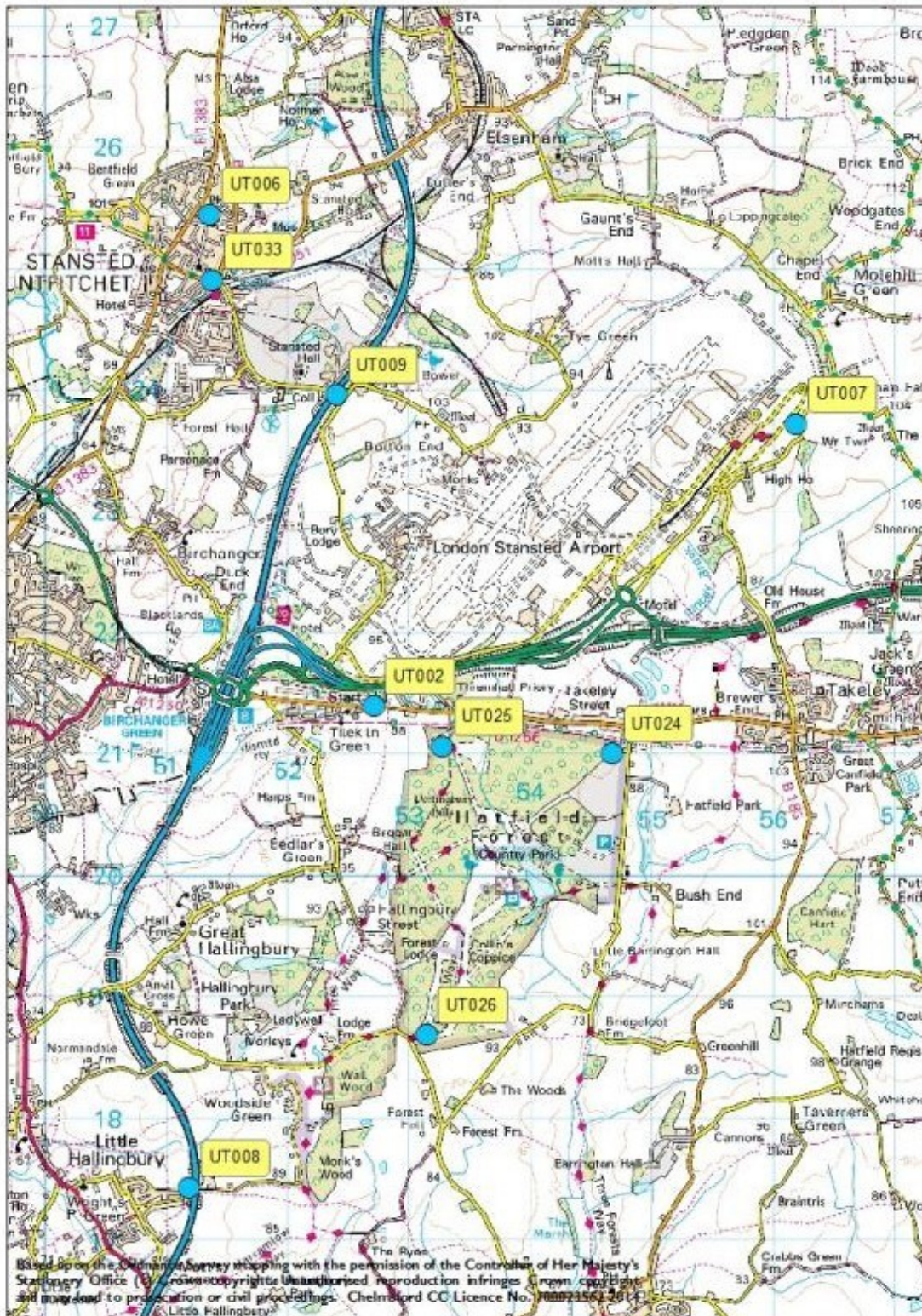
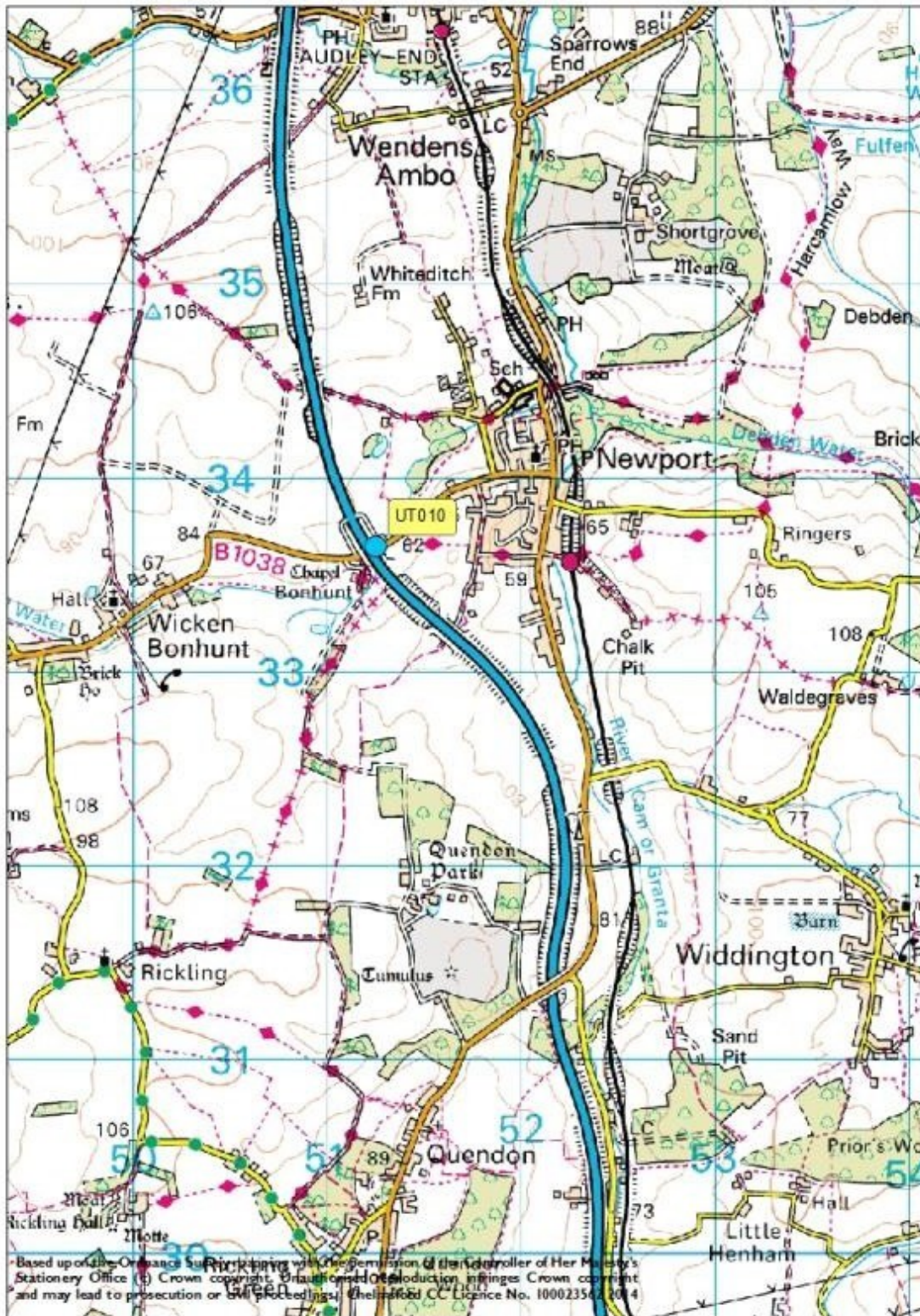


Figure 2.5 Diffusion tube locations within the Uttlesford District



2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide (NO₂) Automatic Monitoring Data

The monitoring data shows no exceedances of the annual mean Nitrogen Dioxide objective at the automatic monitoring sites.

Table 2.3 Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with Annual Mean Objective

Location	Within AQMA?	Data Capture 2013 %	Descriptor	2008	2009	2010	2011	2012	2013
Saffron Walden	Y	95.11	Annual mean, µg/m ³	27.7	24.68	30.07	22.29	22.86	23.65
			Number of Exceedances of Hourly Mean (200 µg/m ³)	2	0	13	0	0	0
Takeley	N	85.7	Annual mean, µg/m ³	18.6	17.64	18.98	19.64	18.96	18.75
			Number of Exceedances of Hourly Mean (µg/m ³)	0	0	0	0	0	0
Stansted Hall	N	N/A	Annual mean, µg/m ³	n/a	n/a	27.7	29.22	26.66	N/A
			Number of Exceedances of Hourly Mean (200µg/m ³)	n/a	n/a	0	1	0	N/A

The Stansted Hall automatic monitor site has been decommissioned

Figure 2.6 Chart showing Hourly Mean Nitrogen Dioxide Concentration at the Saffron Walden AQMS in 2013

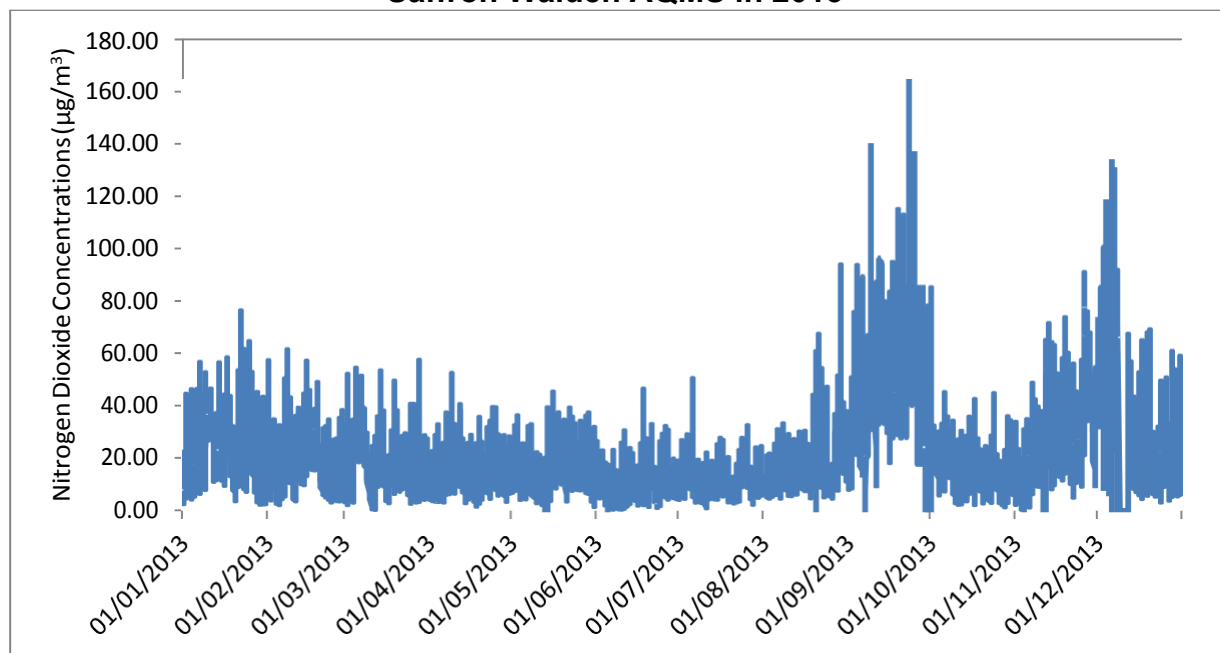
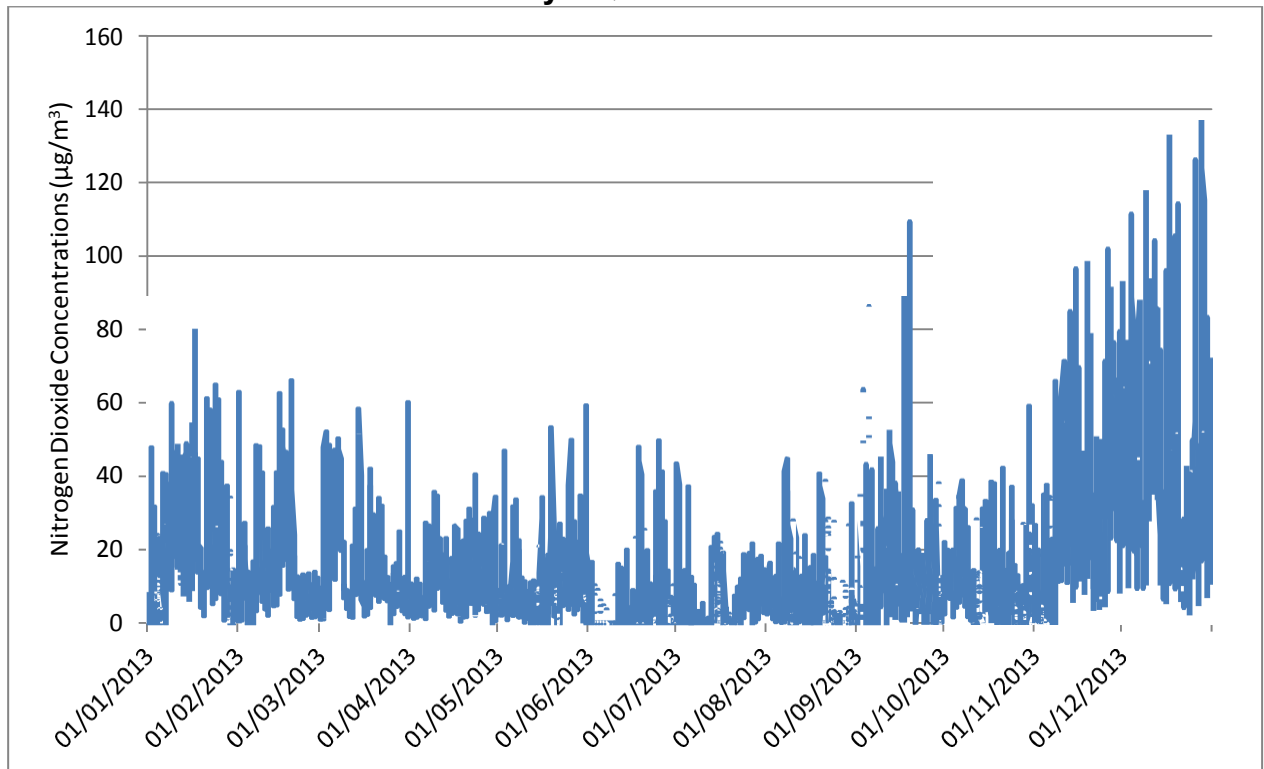


Figure 2.7 Chart showing Hourly Mean Nitrogen Dioxide Concentration at the Takeley AQMS in 2013



2.2.2 Diffusion tube monitoring data

Table 2.4 Results of NO₂ diffusion tubes 2013

Site ID	Location	Within AQMA?	Data Capture 2013 (%)	Annual mean concentrations (µg/m ³) 2013 (Bias Adjustment Factor = 0.97)
UT001	Walden 1 PO High Street	Y	100	38.94 ~
UT002	Airport 1 Thatched Cottage	N	100	23.82
UT003	Walden 3 Gibson Gardens	Y	100	16.04
UT004	Walden 4 YHA	Y	91.67	42.74 #Predicted Annual Mean at Receptor 39.60
UT005	Walden 5 Thaxted Road	Y	100	36.24
UT006	Stansted	N	100	15.94
UT007	Airport 2 Rose Cottage	N	100	24.84
UT008	Hallingbury	N	100	29.71
UT009	Burton End	N	100	38.73 ~
UT010	Newport	N	100	25.96
UT011	Walden 11 33 High Street	Y	100	34.35
UT012	Walden 12 Town Hall	Y	91.67	20.99
UT013/14/27*	Fire Station Co-located	Y	100	25
UT024	Takeley Hill Hatfield Forest	N	91.67	15.73
UT025	Elman's Green Hatfield Forest	N	100	15.8
UT026	South Gate Hatfield Forest	N	100	13.28
UT028	Walden 16 London Road	Y	100	41.33 #Predicted Annual Mean at Receptor 39.3
UT029	Walden 17 Debden Road	Y	100	27.33
UT030	Walden 18 Friends School	Y	100	30.67
UT031	Walden Peaslands Rd	Y	100	23.79
UT032	Walden Borough Lane	Y	100	19.51
UT033	Stansted Chapel Hill	N	100	29.79

* Calculations for the average mean of the triplicate location UT013/014/027 are shown in Appendix 1 Figure A.2

NO₂ Fall Off Calculations shown in Appendix 1 Figures A.3 & A.4

~ Borderline Concentrations

Table 2.5 Results of NO₂ diffusion tubes 2007-2013

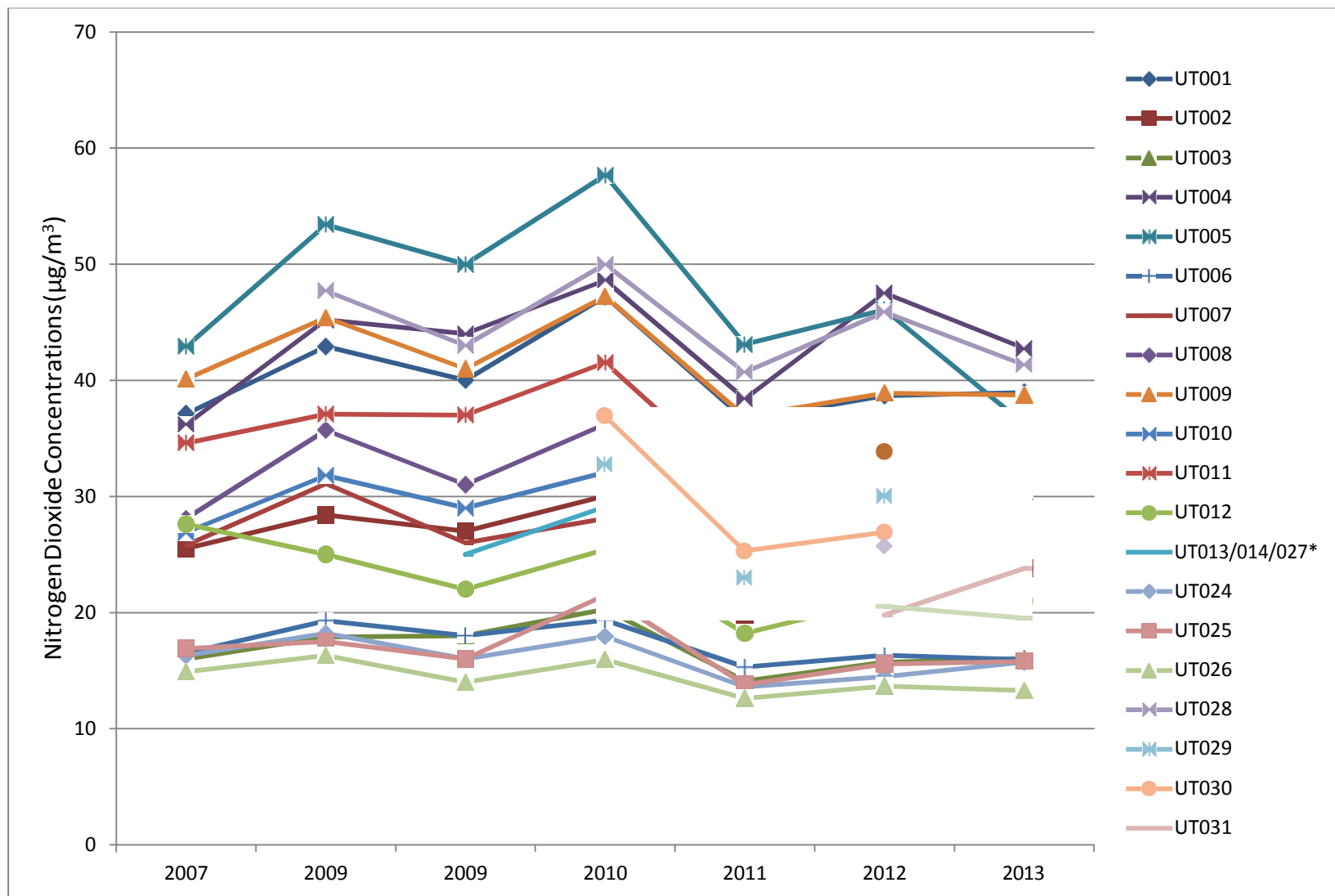
Site ID	Location	In AQMA?	Data capture 2013 (%)	Annual Mean Concentrations (µg/m ³) Adjusted for Bias						
				2007 (Bias Factor 0.89)	2008 (Bias Factor 1.36)	2009 (Bias Factor 0.92)	2010 (Bias Factor 0.95)	2011 (Bias Factor 0.80)	2012 (Bias Factor 0.90)	2013 (Bias Factor 0.97)
UT001	Walden 1 PO High Street	Y	100	37.1	42.9	40	47.22	36.6	38.67	38.94
UT002	Airport 1 Thatched Cottage	N	100	25.5	28.4	27	30.05	19.8	27.32*	23.82
UT003	Walden 3 Gibson Gardens	Y	100	16	17.9	18	20.29	14.1	15.74	16.04
UT004	Walden 4 YHA	Y	91.67	36.2	45.2	44	48.61	38.4	47.51	42.74 #Predicted Annual Mean at Receptor 39.60
UT005	Walden 5 Thaxted Road	Y	100	42.9	53.4	50	57.66	43.1	46.08	36.24
UT006	Stansted	N	100	16.5	19.3	18	19.34	15.3	16.32	15.94
UT007	Airport 2 Rose Cottage	N	100	25.8	31.1	26	28.1	21.2	23.5	24.84
UT008	Hallingbury	N	100	28.1	35.7	31	36.21	26.9	27.8	29.71
UT009	Burton End	N	100	40.1	45.4	41	47.23	36.9	38.9	38.73
UT010	Newport	N	100	26.9	31.8	29	32.07	25.4	26.98	25.96
UT011	Walden 11 33 High Street	Y	100	34.6	37.1	37	41.53	30.7	33.57	34.35
UT012	Walden 12 Town Hall	Y	91.67	27.6	25	22	25.41	18.2	21.14	20.99
UT013/014/027*	Fire Station	Y	100	-	-	25	29.1	21.2	22.68	25
UT024	Takeley Hill Hatfield Forest	N	91.67	16.3	18.2	16	17.95	13.6	14.46	15.73
UT025	Elman's Green Hatfield Forest	N	100	16.9	17.5	16	21.51	13.8	15.58	15.8

Site ID	Location	In AQMA?	Data capture 2013 (%)	Annual Mean Concentrations ($\mu\text{g}/\text{m}^3$) Adjusted for Bias						
				2007 (Bias Factor 0.89)	2008 (Bias Factor 1.36)	2009 (Bias Factor 0.92)	2010 (Bias Factor 0.95)	2011 (Bias Factor 0.80)	2012 (Bias Factor 0.90)	2013 (Bias Factor 0.97)
UT026	South Gate Hatfield Forest	N	100	14.9	16.3	14	15.94	12.6	13.66	13.28
UT028	Walden 16 London Road	Y	100	-	47.7	43	50	40.7	45.87	41.33 #Predicted Annual Mean at Receptor 39.3
UT029	Walden 17 Debden Road	Y	100	-	-	-	32.75	23	30.02*	27.33
UT030	Walden 18 Friends School	Y	100	-	-	-	36.95	25.3	26.91	30.67
UT031	Walden Peaslands Rd	Y	100	N/A	N/A	N/A	N/A	N/A	19.78	23.79
UT032	Walden Borough Lane	Y	100	N/A	N/A	N/A	N/A	N/A	20.52*	19.51
UT033	Stansted Chapel Hill	N	100	N/A	N/A	N/A	N/A	N/A	25.72	29.79
UT034	High St GD	N		N/A	N/A	N/A	N/A	N/A	33.85*	N/A

*Calculations for the average mean of the triplicate location UT013/014/027 are shown in Appendix 1 Figure A.2

#NO2 Fall Off Calculations shown in Appendix 1 Figures A.3 & A.4

Figure 2.8 Trends in Annual Mean NO₂ Concentrations measured at diffusion tube monitoring sites 2008-2013



2.2.3 Particulate Matter (PM₁₀)

In 2013 Uttlesford District Council undertook continuous monitoring of PM₁₀ at the Saffron Walden and Takeley air quality monitoring stations. The Saffron Walden site was monitored from January to June and the Takeley site was monitored from July to December. The reason for the change was the BAM inlet heads were swapped over to move PM_{2.5} monitoring from Takeley to Saffron Walden in response to public concern over PM_{2.5} levels.

The results have been corrected using the 1/1.21 factor for the BAM analyser.

Table 2.6 Results of PM₁₀ Automatic Monitoring: Comparison with Annual Mean Objective

Location	Within AQMA?	Data Capture 2013 %	Descriptor	2008	2009	2010	2011	2012	2013
Saffron Walden	Y	99.40	Annual mean, μgm^{-3}	18.8	15.59	19.03*	25.31	24.73	22.69#
			Number of Exceedences of 24-Hour Mean ($50 \mu\text{gm}^{-3}$)	5	1 (28.59 μgm^{-3})	4 (45.87 μgm^{-3})	19	7	5
Takeley	N	97.99	Annual mean, μgm^{-3}	N/A	N/A	N/A	N/A	N/A	20.95#
			Number of Exceedences of 24-Hour Mean ($50 \mu\text{gm}^{-3}$)	N/A	N/A	N/A	N/A	N/A	0

6 months of monitoring data Saffron Walden: January to June 2013

6 months of monitoring data Takeley: July to December 2013

Although the data for each location appears to be well below the Air Quality Objectives, it should be noted that the results for each location are only for six months monitoring.

Figures 2.9 and 2.10 give a graphical representation of daily levels.

Figure 2.9 Trends in Daily PM₁₀ concentrations at Saffron Walden (January to June 2013)

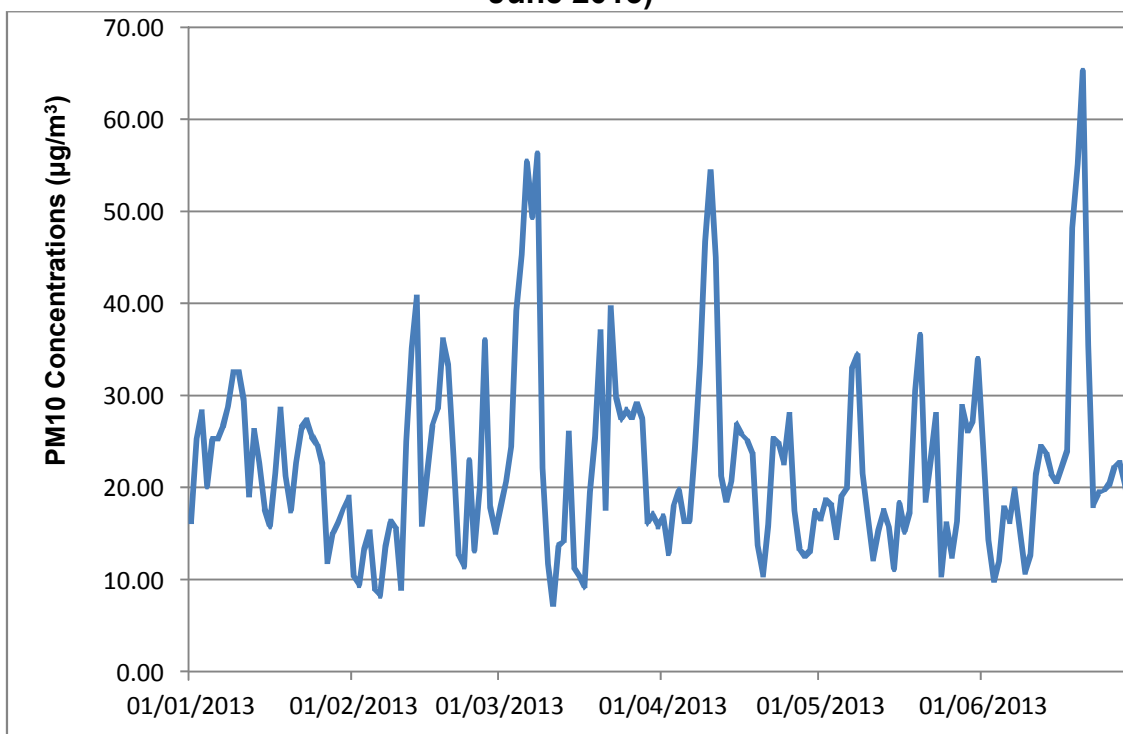
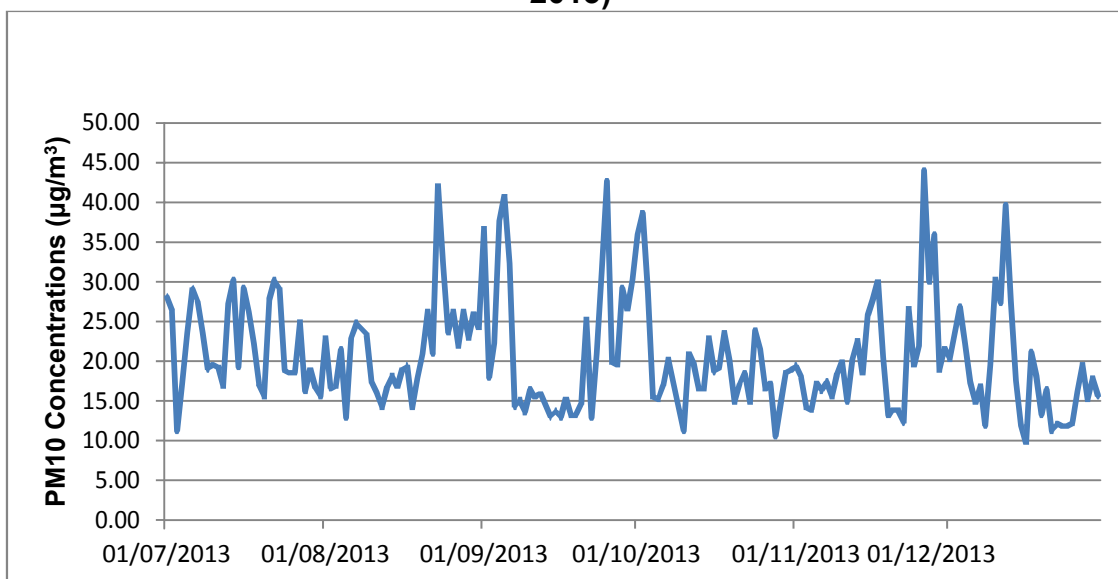


Figure 2.10 Trends in Daily PM₁₀ concentrations at Takeley (July to December 2013)



2.2.4 Sulphur Dioxide (SO₂)

Uttlesford District Council does not currently monitor Sulphur Dioxide levels.

2.2.5 Benzene

Uttlesford District Council does not currently monitor Benzene levels.

2.2.6 Other Pollutants Monitored

Ozone and PM 2.5 have been monitored at the Takeley and Saffron Walden continuous monitoring sites. The results are presented below in Table 2.6 and 2.7.

Table 2.7 Results of Automatic Monitoring for Ozone

Location	Within AQMA?	Valid Data Capture 2013	Annual mean concentration 2013
Takeley	N	96.36%	50.18 $\mu\text{g}/\text{m}^3$

Figure 2.11 Daily trends in Ozone concentrations at Takeley

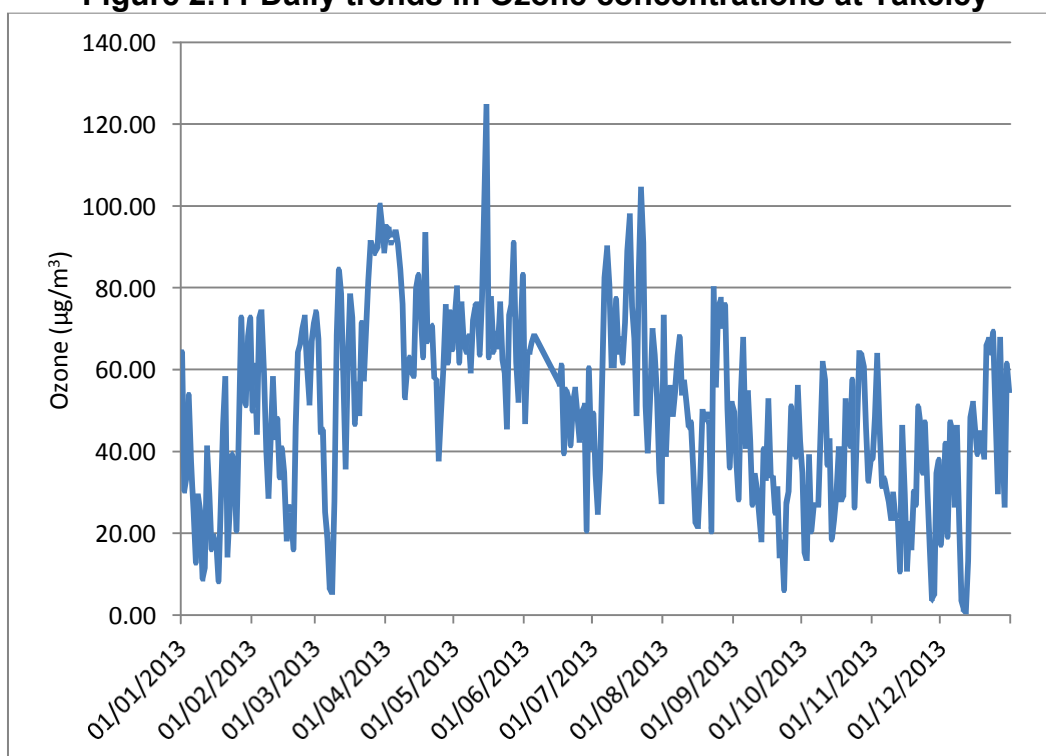


Table 2.8 Results of Automatic Monitoring for PM2.5

Location	Within AQMA?	Valid Data Capture (during time at location)	Mean concentration
Saffron Walden (July to December 2013)	Y	97.04%	22.68 $\mu\text{g}/\text{m}^3$
Takeley (January to June 2013)	N	98.33%	27.15 $\mu\text{g}/\text{m}^3$

Figure 2.12 Daily trends in PM2.5 concentrations at Saffron Walden

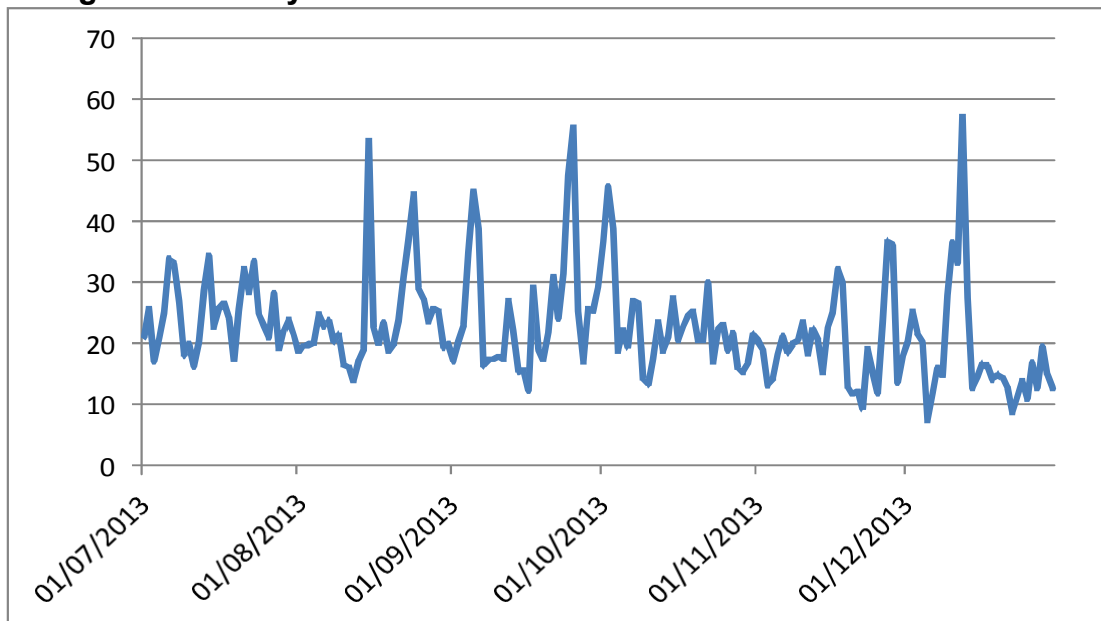
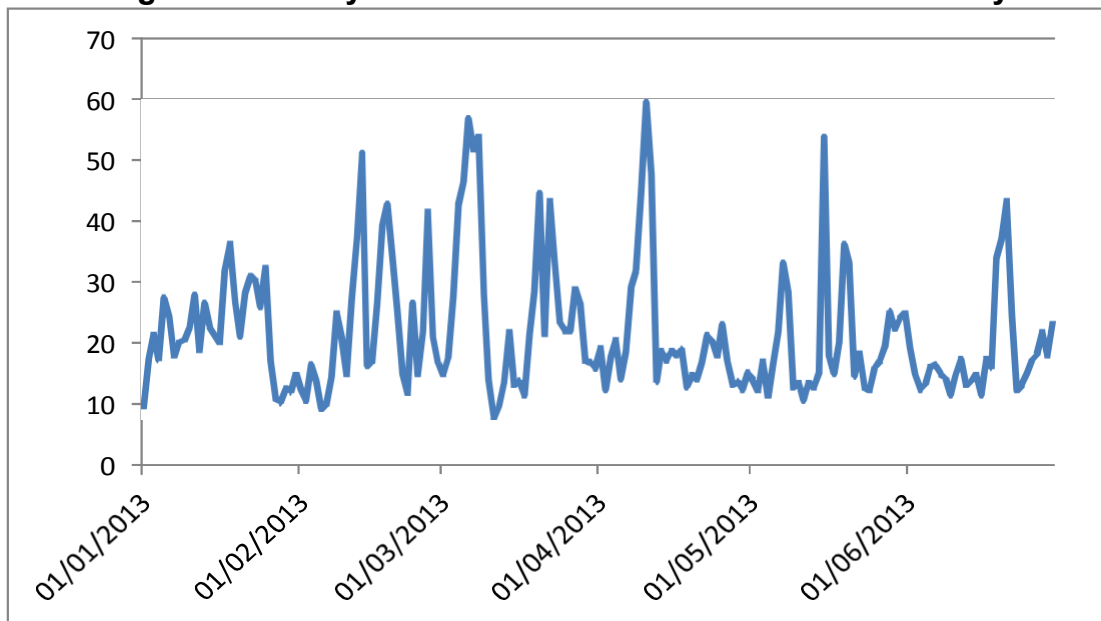


Figure 2.13 Daily trends in PM2.5 concentrations at Takeley



2.2.7 Summary of Compliance with AQS Objectives

Uttlesford District Council has examined the results from monitoring in the district. Within the AQMA, concentrations have exceeded the objectives at two locations (UT004 & UT028), with two borderline results (Locations UT001 & UT005).

It should be noted that at the borderline location UT005, road works were in place for 30 weeks of 2013. The effect was to set back queuing traffic away from the diffusion tube by 18 metres. Uttlesford District Council believes that if the road works were not in place, the diffusion tube would have exceeded the air quality objective of $40\mu\text{g}/\text{m}^3$.

One borderline result occurred outside of the AQMA, at UT009 Burton End. As relevant locations are below the objectives, there is no need to proceed to a Detailed Assessment.

3 New Local Developments

Uttlesford District Council has examined the following sources that may have an impact on air quality within the Local Authority Area;

- **Road traffic sources**
- **Other transport sources**
- **Industrial sources**
- **Commercial and domestic sources**
- **New developments with fugitive or uncontrolled sources.**

Road Traffic Sources

The Dunmow NW bypass has opened since the last Progress report. The road links the B184 to Canfield Road Dunmow and will relieve traffic impact on Dunmow town centre.

Other Transport Sources

There have been no significant changes to Stansted Airport since the publication of the Progress Report 2013

Industrial Sources

- **Part A2 Industrial Processes** - There have been no new Part A2 industrial processes permitted in the Uttlesford District area since the Progress Report 2013
- **Part B Industrial Processes** - There have been four new Part B industrial processes permitted in the Uttlesford District area since the Progress Report 2013.
- **Landfill, Quarrying and Mineral Processes** - There has been one new landfill, quarrying and mineral processes in the Uttlesford district in 2013; Highwood Quarry Lt Easton. EA Permit no EPR FB 3737AZ
- **Industrial Installations** - There have been no other known significant industrial openings or closures in the Uttlesford District area since the Progress Report 2013

Commercial and Domestic Sources

Uttlesford District Council are not aware of any new biomass combustion plants or a significant increase in the use of domestic solid fuel burning which may have an impact on Air Quality within the Local Authority area.

New Developments with Fugitive or Uncontrolled Sources

Uttlesford District Council are not aware of any new developments with fugitive or uncontrolled sources which may have an impact on Air Quality within the Local Authority area

4 Local / Regional Air Quality Strategy

In 1995, as a result of the Government publication "Meeting the Challenge" and the aspirations of local government to undertake more local air quality work in Essex, the Essex Air Quality Consortium was formed.

Consisting of all Local Authorities in Essex, Essex County Council, the Environment Agency, London Stansted Airport and the University of Essex, the purpose of the Essex Air Quality Consortium is to promote improvements in air quality related issues.

Members of the Essex Air Quality Consortium meet on a quarterly basis to discuss common air quality issues, share experiences and best practice in carrying out their duties locally. The partnership provides assistance to all members regarding their obligations under current UK Air Quality legislation.

Air pollution does not respect Council boundaries and in Essex the Local Authorities are varied in size and population. Effective options for individual Councils can be limited so the Essex Authorities have agreed to work in partnership with each other to seek joint solutions to air pollution problems.

The Essex Air Quality Consortium has been able to represent the people of Essex at a regional and national level through Air Quality Events and Meetings. The group have been able to offer its views and comments on current air quality requirements and any future consultations being considered.

The profile of Air Quality in Essex is changing and is becoming more challenging. Due to the declaration of an increasing number of Air Quality Management Areas (AQMAs) and as a result of increased traffic growth and congestion, the Consortium is working much more closely with the Local Transport Authority in Essex County Council to seek improvements to Air Quality where possible

5 Planning Applications

Uttlesford District Council has received the following planning applications for forthcoming development which has the potential to affect air quality.

Table 5.1 Planning Applications

Reference	Address	Description	AQA outcome	Status
1323/09	Tesco Radwinter Road	Extension to existing store	Slight adverse effect on emissions	Committed
13/3406	Radwinter Road	52 dwellings	None provided	Committed
13/1981	Radwinter Road	60 bed care unit	None provided	Committed
13/3467	Radwinter Road	Up to 230 dwellings, B1 floorspace, extra care housing, primary school	Slight adverse effect on emissions, mitigation proposed	Under consideration
13/2060	Thaxted Road	300 dwellings	Negligible impact on emissions	Under consideration
1572/12	Ashdon Road	130 dwellings & B1 employment	None provided	Committed
1576/12	Little Walden Road	15 dwellings	None provided	Committed
13/0268	Thaxted Road	Class A1 retail development	Negligible impact on emissions	Committed
12/5226	Radwinter Road	31 sheltered apartments	Insignificant effect on emissions	Committed
13/1937	Thaxted Road	Up to 52 dwellings	Negligible impact on emissions	Committed
13/2423	Ashdon Road	170	Negligible impact on emissions, mitigation proposed	Under consideration
0545/12	Thaxted Road	12 dwellings	None provided	Committed
1252/12	Debden Road	24	None provided	Committed
0280/12	King Street	8 flats	None provided	Committed
0609/11	Emson Close	9 flats and retail	None provided	Committed

6 Air Quality Planning Policies

The current Local Plan was adopted in January 2005 and includes policy ENV 13 – Exposure to Poor Air Quality:

“Development that would involve users being exposed on an extended long-term basis to poor air quality outdoors near ground level will not be permitted”

In addition, policy GEN 1 provides that development will only be permitted if *“development encourages movement by means other than by driving a car”*

The development of a new Local Plan is currently under way, expected to be adopted early in 2015, and will relate to development until 2031. The wording of the policies etc. will not be finalised until the plan is adopted and the objectives below are taken from the Pre-Submission Draft Plan 2014.

It contains the following objectives;

Air Noise, Ground Noise and Air Quality: The Council will seek to minimise the impact of air noise, ground noise and air quality on the health and amenity of local communities and the historic environment. All development will be expected to comply with the strategic policies which set out the overall framework for development.

Strategic Policy SP12 relates to accessible development:

Policy SP12 - Accessible Development;

Development and transport planning will be co-ordinated to reduce the need to travel by car, increase public transport use, cycling and walking and improve accessibility and safety in the District while accepting the rural nature of the District. To achieve this:

The capacity of the access to the main road network and the capacity of the road network itself must be capable of accommodating the development safely and without causing congestion. Development will be managed so that it improves road safety and takes account of the needs of all users. New development should be located where it can be linked to services and facilities by a range of transport options including the private car, public transport, safe and well designed footpaths and cycle networks. Travel Plans and Transport Assessments/Statements will be required for specific development proposals to demonstrate how a reduction in car travel will be achieved.

Policy EN6 ‘Air Quality’ states that;

“Development will be permitted as long as it does not involve users being exposed on an extended long-term basis to poor air quality. The cumulative impact of air quality from a number of developments in a local area will be considered and mitigation measures may be required. Proposals for development within or affecting air quality management areas should include an air quality assessment detailing the impact of the new development on air quality and a mitigation strategy which shows how any adverse impacts will be mitigated”.

7 Local Transport Plans and Strategies

Uttlesford is covered by the Essex County Council Local Transport Plan (LTP). Within the long term strategy there is a countywide approach with specific local priorities addressed at a more local level. Uttlesford is within the West Essex planning area.

The Essex LTP3 sets out the Highway Authority's strategy for transport from 2011 until 2026 and commits Essex CC to the following policies which will benefit air quality by reducing congestion and improving traffic flow:

- supporting and encouraging the use of low carbon travel, focussing on for journeys to school and work
- enabling greater travel choice by improving public transport and facilities for alternative modes of transport to car travel
- examining opportunities to introduce electric vehicles and alternative fuels
- assisting travel planning for new developments to encourage walking and cycling
- ensuring all schools have active travel plans
- facilitating better broadband coverage to encourage home working
- ensuring the road network operates efficiently including minimising disruption from roadwork's
- adopting measures to reduce emissions from the ECC fleet vehicles
- ensuring HGV's follow the most appropriate routes

Uttlesford District Council is working in partnership with the Development, Highways and Transportation department of Essex County Council to ensure that new traffic management schemes consider the potential impact on Air Quality, with particular emphasis on the declared AQMA.

8 Climate Change Strategies

Uttlesford District Council's Climate Change strategy has been superseded by a Natural Resource Management Strategy produced in 2010.

The main objective of the strategy is to reduce the greenhouse gas emissions (principally CO₂) from Council operations and from the district as a whole, and to make preparations for predicted climate change impacts.

The Council's CO₂ emissions have fallen by 36% since 2005/2006. A number of factors have contributed to this figure including efficient use of buildings, improved vehicle efficiency and behavioural change across the organisation.

9 Implementation of Action Plans

Table 9.1 Uttlesford District Council Action Plan

Measure	Lead Authority	Progress in 2013	Estimated completion date	Impact on emission reductions
Traffic Management Plan	Essex County Council	Highway Impact Assessment report on Local Plan proposals and scheme of junction improvements to reduce congestion. Updated nitrogen dioxide dispersion modelling report for changes to junctions within Saffron Walden AQMA. Sec 106 funding secured towards junction improvements	Reports are subject to further work dependant on adoption of the new Local Plan, anticipated to be early 2015, and the submission of related planning applications accompanied by AQA's. Preliminary findings are partial completion by 2018 and full completion by 2026.	Best outcome modelled , taking account of Euro 6 reductions in vehicle emissions, concludes Thaxted Road / Radwinter Road and London Road/Debden Road junctions will be below Air Quality Objective levels by 2018 and all junctions will be below by 2026
Business Travel Plans	Uttlesford District Council	UDC Travel Plan – increased home working facilitated, encouragement of car sharing introduced through mileage incentive. Provision of an additional 10 cycle storage spaces at UDC offices	On-going. A recent survey of journeys to work has shown a reduction of 8% lone car travel and an increase 5% in car sharing since 2012	Reduction in car journeys to/for work by staff

Measure	Lead Authority	Progress in 2013	Estimated completion date	Impact on emission reductions
Car parking signage	UDC and Essex County Council	New and reinstated signage provided	Further signage as new development is completed	Reduction in wasted vehicle movements searching for spaces
Non car travel	Essex County Council	A shared pedestrian and cycle path to Audley End station has been designed and is under public consultation. Sec 106 funding for cycle paths secured. Links to Cambridge cycle routes under consideration	September 2014	Expected reduction in vehicle movements once complete
HGV movements	Essex County Council	Vehicle activated sign installed on wt limit road entry into Saffron Walden from north to prevent vehicles adding to congestion through Bridge Street and High Street		Reduction in HGV movements at congested junctions

10 Conclusions and Proposed Actions

10.1 Conclusions from New Monitoring Data

The Progress Report shows that Uttlesford District Council is meeting the Air Quality objectives for PM10, PM2.5 and Ozone. Within the AQMA there have been two borderline exceedences (within 10% above) of the objective for nitrogen dioxide. When scaled to relevant exposure they were within 10% below the objective and should therefore still be considered borderline.

Outside of the AQMA there has been one borderline result (within 10% below) at UT009 (Burton End) which historically has shown exceedences due to the proximity to the M11. Additional monitoring is not considered necessary as the location is only representative of motorway (M11) concentration levels and trends.

The Council is working in partnership with key stakeholders to ensure that the Air Quality in Uttlesford remains below objective limits and continues to improve. An Action Plan relating to the Saffron Walden AQMA is due to be available for public consultation by the end of June 2014.

Based on the findings of this Progress Report there is no obvious need for Uttlesford District Council to carry out any Detailed Assessment of any Air Quality issues.

10.2 Conclusions relating from New Local Developments

10.3 Proposed Actions

Proposed actions arising from the 2014 Progress Report are as follows:

- Proceed with implementation of the Uttlesford District Council Air Quality Action Plan for the Saffron Walden AQMA
- Progress to the Updating and Screening Assessment in 2015

References

Uttlesford District Council Reports:

- Uttlesford Adopted Local Plan (2005) available at <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=1478&p=0>
- Uttlesford District Council (2006) Local Air Quality Management Updating and Screening Assessment.
- Uttlesford District Council (2008) Local Air Quality Management Progress Report.
- Uttlesford District Council (2009) Local Air Quality Management Updating and Screening Assessment
- Uttlesford District Council (2010) Local Air Quality Management Annual Progress Report.
- Uttlesford District Council Natural Resources Management Strategy (2010) available at <http://www.uttlesford.gov.uk/CHttpHandler.ashx?id=1551&p=0>
- Uttlesford District Council (2012) Local Air Quality Management Updating and Screening Assessment 2012
- Uttlesford District Council (2013) Local Air Quality Management Progress Report 2013

Guidance and LAQM tools:

- LAQM Technical Guidance LAQM.TG (09). February 2009. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland available at <http://laqm.defra.gov.uk/technical-guidance/>
- Air Quality Consultants Nitrogen Dioxide fall off with distance calculator 2011 (Issue 4) available at <http://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html>
- LAQM Helpdesk (2013) Summary of Laboratory Performance in WASP NO2 Proficiency Testing Scheme for Rounds 115-122 available at [http://laqm.defra.gov.uk/documents/LAQM-WASP-Rounds-115-122-\(October-2011--September-2013\)-NO2-report.pdf](http://laqm.defra.gov.uk/documents/LAQM-WASP-Rounds-115-122-(October-2011--September-2013)-NO2-report.pdf)

External Reports and Information:

- Essex County Council Local Transport Plan (LTP) 2011 available at http://www.essex.gov.uk/Environment%20Planning/Planning/Transport-planning/Documents/Essex_Transport_Strategy.pdf

Appendices

Appendix 1: Quality Assurance / Quality Control (QA/QC) Data

Diffusion tube bias adjustment factors

Uttlesford District Council has triplicate diffusion tubes at its Saffron Walden continuous monitoring site. The average annual mean value measured by the diffusion tubes was $25\mu\text{g}/\text{m}^3$ and the mean Nitrogen Dioxide levels measured by the M200a continuous monitor was $24\mu\text{g}/\text{m}^3$. Using the AEA spreadsheet a bias adjustment figure of 0.97 (0.82 to 1.17 with 95% confidence interval) was calculated.

Figure A.1 Local bias adjustment factor calculation

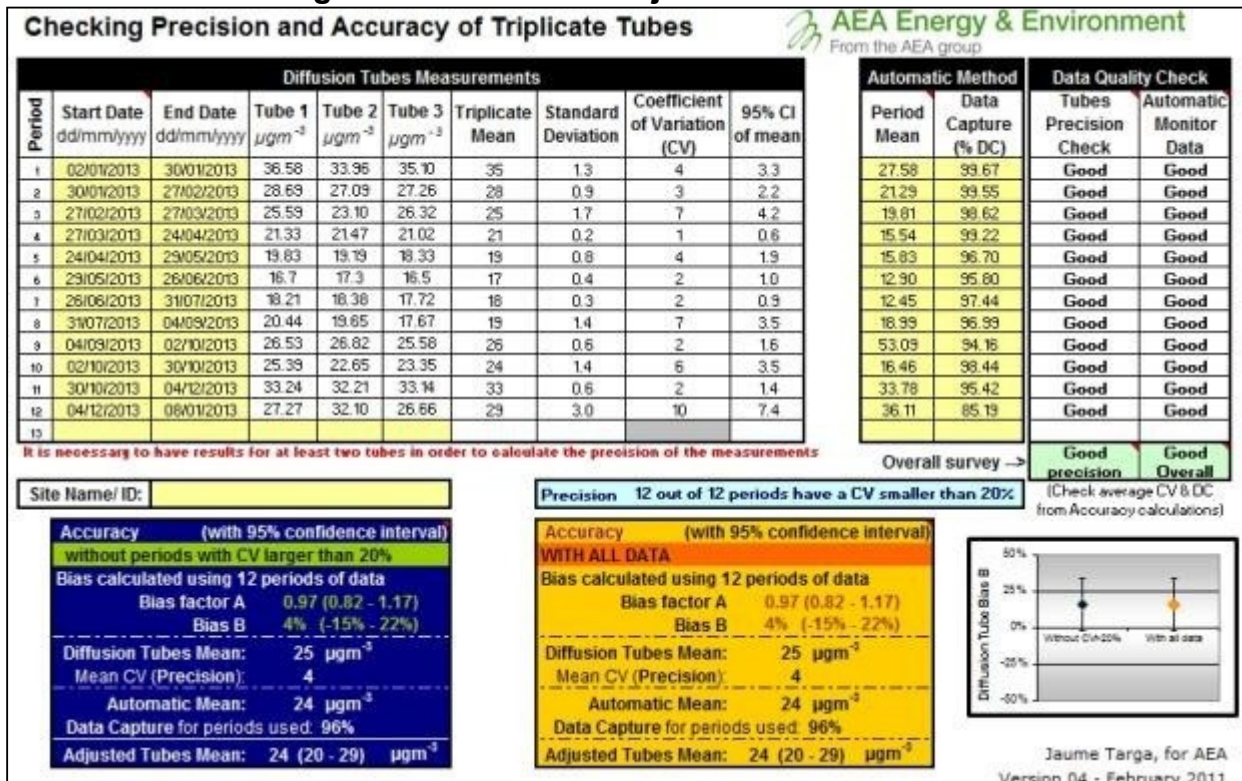
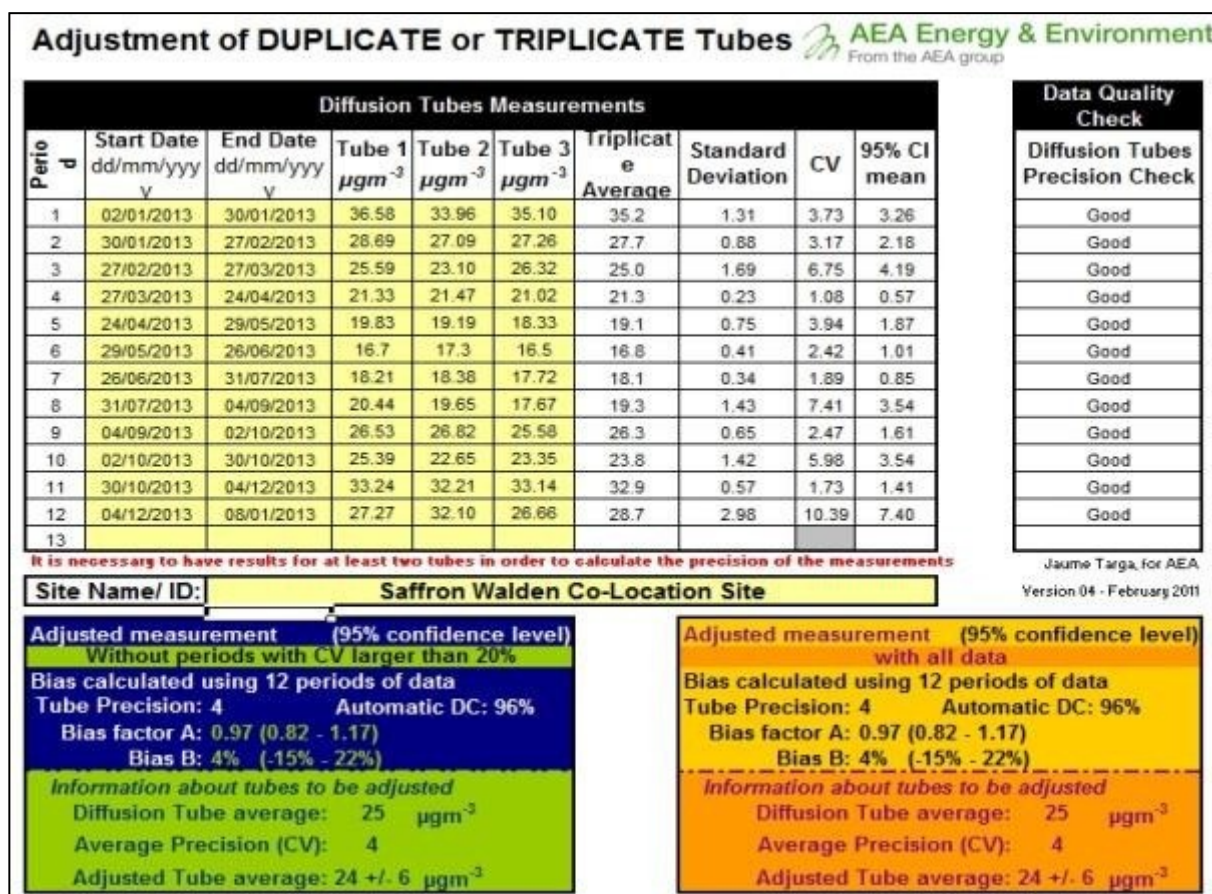


Table A.1 Bias Adjustment calculations for diffusion tubes for Uttlesford District Council 2013

Site ID	Address	2013 Mean Concentration ($\mu\text{g}/\text{m}^3$)	2013 Mean Concentrations* ($\mu\text{g}/\text{m}^3$) After Bias Adjustment (0.97)
UT001	Walden 1 PO High Street	40.14	38.94
UT002	Airport 1 Thatched Cottage	24.55	23.82
UT003	Walden 3 Gibson Gardens	16.54	16.04
UT004	Walden 4 YHA	44.06	42.74
UT005	Walden 5 Thaxted Road	37.36	36.24
UT006	Stansted, Norman Ct	16.43	15.94
UT007	Airport 2 Rose Cottage	25.60	24.84
UT008	Hallingbury	30.63	29.71
UT009	Burton End	39.93	38.73
UT010	Newport	26.77	25.96
UT011	Walden 11 33 High Street	35.41	34.35
UT012	Walden 12 Town Hall	21.64	20.99
UT013	Fire Station 1 Co-located	24.98	24.23
UT014	Fire Station 2 Co-located	24.49	23.75
UT024	Takeley Hill Hatfield Forest	16.22	15.73
UT025	Elman's Green Hatfield Forest	16.29	15.80
UT026	South Gate Hatfield Forest	13.70	13.28
UT027	Fire Station 3 Co-located	24.05	23.33
UT028	Walden 16 London Road	42.61	41.33
UT029	Walden 17 Debden Road	27.33	26.51
UT030	Walden 18 Friends School	30.67	29.75
UT031	Walden Peaslands Rd	24.53	23.79
UT032	Walden Borough Lane	20.11	19.51
UT033	Stansted Chapel Hill	30.71	29.79

Figure A.2 Adjustment of Triplicate Tubes at the Saffron Walden Co-Location Study



QA/QC of diffusion tube monitoring

The Workplace Analysis Scheme for Proficiency (WASP) is an independent analytical proficiency-testing (PT) scheme, operated by the Health and Safety Laboratory (HSL). WASP offers a number of test samples designed to test the proficiency of laboratories undertaking analysis of chemical pollutants in workplace and ambient air. One such sample is the WASP NO₂ test sample type that is distributed to participants in a quarterly basis.

The following table summarises laboratory performance in WASP NO₂ Proficiency Testing Scheme for Rounds 120-122 which took place in 2013. Data for WASP R119 was not available at the time of writing this report.


Table A.2 WASP NO₂ Proficiency Testing Scheme for Rounds 120-122

	WASP R120	WASP R121	WASP R122
Laboratory	January to March 2013	April to June 2013	July to September 2013
Gradko International	100%	100%	100%

Nitrogen Dioxide fall off with distance calculations

Diffusion Tubes UT004 and UT028 both showed exceedences after applying the bias adjustment calculations. Tables A.3 and A.4 show calculations made using the nitrogen dioxide fall off with distance calculator.

Figure A.3 Diffusion Tube UT004 Nitrogen Dioxide fall off with distance calculator

This calculator allows you to predict the annual mean NO₂ concentration for a location ("receptor") that is close to a monitoring site, but nearer or further the kerb than the monitor. The next sheet shows your results on a graph. 

Enter data into the yellow cells

Step 1	How far from the KERB was your measurement made (in metres)?	(Note 1)	1.4	metres
Step 2	How far from the KERB is your receptor (in metres)?	(Note 1)	2.2	metres
Step 3	What is the local annual mean background NO ₂ concentration (in µg/m ³)?	(Note 2)	11.029058	µg/m ³
Step 4	What is your measured annual mean NO ₂ concentration (in µg/m ³)?	(Note 2)	42.74	µg/m ³
Result	The predicted annual mean NO ₂ concentration (in µg/m ³) at your receptor	(Note 3)	39.6	µg/m ³


Note 1: In some cases the term "kerb" may be taken to be the edge of the trafficked road - see the FAQ at <http://laqm2.defra.gov.uk/FAQs/Monitoring/Location/index.htm> for further details. Distances should be measured horizontally from the kerb and assumes that the monitor and receptor have similar elevations. Each distance should be greater than 0.1m and less than 50m (in practice, using a value of 0.1m when the monitor is closer to the kerb than this is likely to be reasonable). The receptor is the location for which you wish to make your prediction. The monitor can either be closer to the kerb than the receptor, or further from the kerb than the receptor. The closer the monitor and the receptor are to each other, the more reliable the prediction will be. When your receptor is further from the kerb than your monitor, it is recommended that the receptor and monitor should be within 20m of each other. When your receptor is closer to the kerb than your monitor, it is recommended that the receptor and monitor should be within 10m of each other.

Note 2: The measurement and the background must be for the same year. The background concentration could come from the national maps published at www.airquality.co.uk, or alternatively from a nearby monitor in a background location.

Note 3: The calculator follows the procedure set out in Box 2.3 of LAQM TG(09). The results will have a greater uncertainty than the measured data. More confidence can be placed in results where the distance between the monitor and the receptor is small than where it is large.

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Figure A.4 Diffusion Tube UT028 Nitrogen Dioxide fall off with distance calculator

This calculator allows you to predict the annual mean NO₂ concentration for a location ("receptor") that is close to a monitoring site, but nearer or further the kerb than the monitor. The next sheet shows your results on a graph. 

Enter data into the yellow cells

Step 1	How far from the KERB was your measurement made (in metres)?	(Note 1)	2	metres
Step 2	How far from the KERB is your receptor (in metres)?	(Note 1)	2.8	metres
Step 3	What is the local annual mean background NO ₂ concentration (in µg/m ³)?	(Note 2)	15.126662	µg/m ³
Step 4	What is your measured annual mean NO ₂ concentration (in µg/m ³)?	(Note 2)	41.33	µg/m ³
Result	The predicted annual mean NO ₂ concentration (in µg/m ³) at your receptor	(Note 3)	39.3	µg/m ³

Note 1: In some cases the term "kerb" may be taken to be the edge of the trafficked road - see the FAQ at <http://laqm2.defra.gov.uk/FAQs/Monitoring/Location/index.htm> for further details. Distances should be measured horizontally from the kerb and assumes that the monitor and receptor have similar elevations. Each distance should be greater than 0.1m and less than 50m (in practice, using a value of 0.1m when the monitor is closer to the kerb than this is likely to be reasonable). The receptor is the location for which you wish to make your prediction. The monitor can either be closer to the kerb than the receptor, or further from the kerb than the receptor. The closer the monitor and the receptor are to each other, the more reliable the prediction will be. When your receptor is further from the kerb than your monitor, it is recommended that the receptor and monitor should be within 20m of each other. When your receptor is closer to the kerb than your monitor, it is recommended that the receptor and monitor should be within 10m of each other.

Note 2: The measurement and the background must be for the same year. The background concentration could come from the national maps published at www.airquality.co.uk, or alternatively from a nearby monitor in a background location.

Note 3: The calculator follows the procedure set out in Box 2.3 of LAQM TG(09). The results will have a greater uncertainty than the measured data. More confidence can be placed in results where the distance between the monitor and the receptor is small than where it is large.

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Appendix 2: Uttlesford District Council raw diffusion tube data 2013

Table A.3 Uttlesford District Council raw diffusion tube data 2013

Site ID	Address	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
UT001	Walden 1 PO High Street	52.55	43.51	31.82	32.69	36.61	34.0	33.70	39.78	45.71	35.18	52.17	44.00
UT002	Airport 1 Thatched Cottage	27.27	31.48	26.21	22.94	20.18	20.5	20.09	21.39	25.46	23.66	32.32	23.11
UT003	Walden 3 Gibson Gardens	26.00	19.96	21.02	14.18	11.67	10.0	9.46	9.81	14.66	16.57	23.84	21.26
UT004	Walden 4 YHA	51.38	43.67	41.01	33.77	36.47	Missing	37.36	44.74	50.14	41.06	57.08	47.98
UT005	Walden 5 Thaxted Road	57.33	48.64	46.66	29.73	26.33	25.3	26.13	29.02	35.41	30.72	56.31	36.76
UT006	Stansted, Norman Ct	22.53	18.73	19.20	13.89	11.75	10.4	10.74	12.55	16.20	17.98	23.33	19.93
UT007	Airport 2 Rose Cottage	35.07	27.57	22.75	20.75	22.8	19.8	19.31	23.22	29.90	25.82	36.21	24.10
UT008	Hallingbury	33.44	31.60	38.14	33.02	26.03	29.7	29.30	25.65	25.42	31.71	33.78	29.73
UT009	Burton End	38.61	40.76	36.30	34.37	40.13	37.6	31.68	37.79	43.80	33.78	59.46	44.87
UT010	Newport	33.21	28.92	22.66	21.50	25.27	20.1	19.69	24.92	29.59	27.17	34.96	33.22
UT011	Walden 11 33 High Street	41.00	38.72	30.71	28.47	35.56	31.7	30.20	36.57	41.66	33.43	42.47	34.41
UT012	Walden 12 Town Hall	29.00	22.77	24.58	21.42	17.21	15.0	16.45	16.38	21.26	22.95	31.00	Missing
UT013	Fire Station 1 Co-located	36.58	28.69	25.59	21.33	19.83	16.7	18.21	20.44	26.53	25.39	33.24	27.27
UT014	Fire Station 2 Co-located	33.96	27.09	23.10	21.47	19.19	17.3	18.38	19.65	26.82	22.65	32.21	32.10
UT024	Takeley Hill Hatfield Forest	24.29	18.59	17.13	10.52	10.16	11.0	10.21	Missing	16.01	16.34	27.62	16.54
UT025	Elman's Green Hatfield Forest	22.94	19.64	19.53	13.33	13.1	10.9	10.80	13.41	15.86	13.32	24.82	17.83
UT026	South Gate Hatfield Forest	21.86	14.29	14.01	9.09	10.13	8.8	8.64	11.80	12.91	15.08	23.04	14.71
UT027	Fire Station 3 Co-located	35.10	27.26	26.32	21.02	18.33	16.5	17.72	17.67	25.58	23.35	33.14	26.66
UT028	Walden 16 London Road	53.40	44.08	39.92	36.43	36.07	35.55	36.23	40.94	41.64	42.70	62.09	42.28
UT029	Walden 17 Debden Road	36.61	28.66	23.95	23.73	21.18	19.70	23.79	22.75	30.38	29.33	35.42	32.44
UT030	Walden 18 Friends School	32.38	33.66	36.44	25.27	28.57	26.9	29.32	24.91	33.07	31.20	39.95	26.38
UT031	Walden Peaslands Rd	30.17	21.39	23.70	19.47	19.86	19.1	19.95	19.83	27.98	29.20	34.77	28.88
UT032	Walden Borough Lane	27.16	22.23	21.72	16.69	15.62	14.0	13.74	14.70	18.52	19.89	28.83	28.17
UT033	Stansted Chapel Hill	38.63	37.94	30.04	27.43	25.54	29.6	29.72	27.00	28.95	31.29	36.87	25.55

Appendix 3: List of Prescribed Processes in the Uttlesford District

Table A.4 List of Prescribed Processes in Uttlesford District

Process Name	Process Type	Permit ID	Status
E Corr	Concrete crushing	B/MW/01	28.04.99
E Corr	Concrete crushing	B/MW/02	17.09.03
R B Haigh	Concrete crushing	B/MW/03	21.03.00
Freemix	Cement batching	B/3/1/02	19.08.13
R B Haigh	Cement batching	B/3/1/03	14.11.13
Cemex	Cement batching	B/3/1/01	13.05.94
Station Coachworks	Vehicle respraying	B/VF/01	20.10.95
Airline Services Ltd	Dry cleaning	B/DC/01	04.10.06
Barkers of Dunmow	Dry cleaning	B/DC/02	01.11.06
Suit-Ability	Dry cleaning	B/DC/04	25.10.07
Saffron Walden Laundry Co Ltd	Dry cleaning	B/DC/03	30.10.07
Multicleaning Services	Dry cleaning	B/DC/05	23.10.13
SGA Technologies Ltd	Surface treatment of metals	B/4/01(04)1	21.10.12
Tyremart Services	Waste Oil Burner	B/WOB/01	23.03.93
Roding Motor Services	Waste Oil Burner	B/WOB/02	31.03.92
Carros Automotive	Waste Oil Burner	B/WOB/03	21.12.12
Premier Garage	Waste Oil Burner	B/WOB/04	21.12.12
Belle Trailers	Waste Oil Burner	B/WOB/05	21.12.12
Fiern Engines	Waste Oil Burner	B/WOB/06	23.02.13
Chesterford Engineering	Waste Oil Burner	B/WOB/07	29.04.13
Bonney Engineering	Waste Oil Burner	B/WOB/08	04.11.13
Tesco SW	Petrol Vapour II	B/PVII/02	13.10.98
Tesco GD	Petrol Vapour II	B/PVII/03	13.10.98
BP Service Station	Petrol Vapour II	B/PVII/01	29.11.04
Welcome Break	Petrol Vapour II	B/PVII/04	13.10.98
Starthill Service St	Petrol Vapour	B/PVI/05	15.12.98
Saracens Filling St	Petrol Vapour	B/PVI/07	15.12.98
Rontec	Petrol Vapour	B/PVI/09	15.12.98
Avis Rent a Car Ltd	Petrol Vapour	B/PVI/03	24.04.06
Hertz (UK) Ltd	Petrol Vapour	B/PVI/06	12.10.06
Europcar Ltd	Petrol Vapour	B/PVI/08	24.04.06
Airport Energy Services	Petrol Vapour	B/PVI/10	23.10.02
Central Garage	Petrol Vapour	B/PVI/04	01.04.08
Dunmow Convenience Store	Petrol Vapour	B/PVI/02	29.11.04
Jet	Petrol Vapour	B/PVI/01	17.07.98
Acrow Galvanizing	Galvanizing	A2/2.3/05/01	30.06.92
Printpack	Printing of flexible packaging	A2/6.4/06/01	26.04.95