2016 Air Quality Annual Status Report (ASR) for South Cambridgeshire District Council

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

June 2016

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Executive Summary: Air Quality in Our Area

This Report constitutes the 2016 Air Quality Annual Status Report (ASR) Report for South Cambridgeshire District Council. The Report includes air quality monitoring data from 2015. It also covers other issues and developments that have occurred in the last twelve months, since the Updating and Screening Assessment of 2015 that may have an impact on local air quality.

South Cambridgeshire is a rural district undergoing significant growth, particularly associated with new or expanded satellite towns/villages around Cambridge City which the district of South Cambridgeshire encompasses.

The area has good road and rail links with London and the South-East. The M11/A11 and A14 corridors pass through the District to the west/south and north of Cambridge respectively. To date, air quality issues within the District of South Cambridgeshire have been linked directly to the volume of traffic that runs through it, specifically along the A14. The A14 is congested on a regular basis between Bar Hill (to the West of Cambridge) and Milton (to the North-East). This has resulted in the declaration of an Air Quality Management Area for nitrogen dioxide (NO_2) and particulates (PM_{10}) along this stretch. Traffic levels have continued to grow along the A14 through the district so that the road is now almost at its maximum capacity. In 2015, a scheme to improve the section of the A14 north of Cambridge was completed, undertaken under the Government's 'Pinch-Point' programme and comprised adding an additional lane in both eastbound and westbound directions between junctions 31 and 32. In addition, as of May 2016, wholescale proposed improvements to the A14 between Cambridge and Huntingdon were confirmed by Highways England after several years of uncertainty, which are likely to be undertaken over the next five years and will significantly alleviate impacts on local air quality and possibly allow the revocation of the AQMA.

Future major developments are to be largely residential and reliant on road-based transport for travel and commuting to the city, London and the surrounding area. The demand for housing, particularly affordable housing, is very high.

The majority of the growth is associated with major developments such as 'Northstowe' a new c.12,000 dwelling settlement being developed to the north west of Cambridge due to commence construction in 2016. Similar developments on former wartime military bases are also planned for Bourn Airfield and Waterbeach Barracks together with several other significant developments on the periphery of Cambridge City.

The majority of these major developments will rely on existing transport infrastructure with additional planned public transport generally limited to buses on existing roads and an additional bus stop on the currently operational guided busway at Northstowe and a new station in Chesterton (under construction from early 2016), just north of Cambridge Station on the existing east coast mainline.

The challenge of maintaining good air quality in the wider district is focussed on minimising impacts from (or to) the new major developments. Most of the new developments, when subject to detailed modelling, do not identify any significant exceedances of national air quality objectives because they are being built in rural background areas where current pollution levels are low. However, the cumulative effect of multiple large concurrent developments is likely to pose a long term risk to air quality in the district even though that may not be immediately apparent when looking at modelled forecasts for individual sites, particularly as many of the developments are at outline or pre-application stage. This is a key challenge for the Council to overcome in ensuring due consideration is given to air quality through the planning process despite a clear and urgent need for new housing.

For new developments, efforts have therefore been focussed on actual deliverables achieved through compliance with planning conditions, such as electric car charging points, enhanced cycle provision, limited car parking and active ventilation on new buildings in sensitive areas.

The review of the new monitoring data has identified the following:

- The objectives for nitrogen dioxide and PM10 were met at all the monitoring locations (three continuous and 27 passive monitoring sites), with generally good data capture. The monitoring data relating to the existing AQMA also achieved relevant objectives.

- The assessment of new sources has not identified any specific new sources that have not been considered previously. A detailed assessment of any new sources is not therefore required.

South Cambridgeshire District Council will continue monitoring at all existing sites within the District and implement the measures outlined in its Air Quality Action Plan for the existing AQMA.

The next air quality review and assessment report will be the 2017 ASR. In addition, the council will be reviewing its Air Quality Strategy following the provision of an Air Quality Developers Guide to be issued in late-2016. The Council's Air Quality Action Plan relevant to the AQMA is largely dependent on the A14 which will be updated following completion of the new road, as the AQMA will need to be re-monitored, modelled and may be potentially revoked, negating the requirement of an action plan. It is acknowledged that greater partnership working amongst local authority's and transport planners is vital to implement any significant improvements with regards to air quality particularly associated with impacts form highways, whereby the Council have had a presence in local transport planning groups and will continue to do so where potential benefits can be delivered.

Air Quality in South Cambridgeshire

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas[1,2].

[1] Environmental equity, air quality, socioeconomic status and respiratory health, 2010

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion[3].

Within South Cambridgeshire, the absence of heavy industry means that the key pollutants of concern are Nitrogen Dioxide and Particulates associated with automotive transport.

The A14 runs through the district and is a key link from Felixstowe supplying freight to the Midlands, contributing particulates from diesel engines and it is along this road that the Council declared an Air Quality Management Area in 2008 due to emissions of nitrogen dioxide and particulates.

These pollutants have been monitored for several years, with efforts focussed on the A14 route, and have shown recent improvements which continues improving trends over the last couple of years.

Actions to Improve Air Quality

It is recognised by the Council that implementing measures which will actually deliver improvements or mitigate impacts in relation to air quality are often not tangible and difficult to achieve, particularly on major new developments where local planning policies do not categorically state what measures will be required unless national objectives are threatened. As such, efforts have been made in 2015 to achieve improvements through the use of planning conditions, such as the use of Euro 6 engine standards on the Northstowe construction site. This has been a mixed success and is recognised as an area for improvement. As such the Council will be producing a developers guide in 2016 which will go beyond the existing local development framework standards and specifically state what measures will be required on new developments. This document will be subject to committee scrutiny if required and is aimed at providing a basis and degree of transparency for developers intending to build in South Cambridgeshire.

Local Priorities and Challenges

For the coming year, the council wish to move away from a standard of just achieving national limit objectives and pursue a longer term & deliverable set of outcomes which will result in reduced impacts on local air quality. This will require liaison with

[2] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006
[3] Defra. Abatement cost guidance for valuing changes in air quality, May 2013

other authorities and planning authorities, a key element of that process is the 'City Deal' – see below.

How to Get Involved

The Greater Cambridge City Deal is an initiative aimed at providing more sustainable transport options, making it easier for people to travel by public transport, cycle or on foot, reducing traffic and easing congestion. Local Liaison Forums are being carried out as part of the City Deal and the public can get involved by contacting the City Deal Team here. They can also be followed on Twitter using @gccitydeal.

Note – This report has been submitted to DEFRA in word format to preserve all hyperlinks.

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1 Local Air Quality Management

This report provides an overview of air quality in South Cambridgeshire District Council during 2015. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) 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 pursuit of the objectives. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by South Cambridgeshire District Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England can be found in E.1 in Appendix E.

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 must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures it intends to put in place in pursuit of the objectives.

A summary of AQMAs declared by South Cambridge District Council can be found in Table 2.1. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at the link provided.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Pollutants and Air Quality Objectives	City / Town	One Line Description	Action Plan
AQMA 1	• NO_2 annual mean • PM_{10} daily mean	Bar Hill - Milton	An area along the A14 between Bar Hill and Milton.	**Air Quality Action Plan** for the Cambridgeshire Growth Areas (2009)

2.2 Progress and Impact of Measures to address Air Quality in South Cambridgeshire

South Cambridgeshire District Council has taken forward a limited number of measures during the current reporting year of 2015 in pursuit of improving local air quality. Details of the most relevant measures completed, in progress or planned are set out in Table 2.2. More detail on these measures can be found in the respective Action Plan (see link above). Key completed measures relate to the completion of major highway improvements although it is acknowledged the key driver in these aspects has been other factors rather than air quality. Limitations and corrective measures to mitigate impacts from air quality are outlined within the 'Actions to Improve Air Quality' section above.

Table 2.2 – Progress on Key Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
1	Guided Bus Way	Transport Planning & Infrastructure	Bus Route Improvements	CCC	2009-2010	2011	N/A	None	Completed	N/A	
2	A14 Improvement – Junction 31-32 (E/B & W/B)	Traffic Management	Strategic highway improvements	CCC	N/A	2015	N/A	None	Completed Autumn 2015	N/A	
3	A14/M11 Re-alignment	Traffic Management	Strategic highway improvements	CCC/ Highways England	N/A	2016-20	Central Gov't/Highways England Commitment	None	Work to commence 2016/7 (Package 1)	2020	
4	Policy Guidance and Development Control	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	SCDC	2015	2016	LDF Policy NE/16	None	SPD or Developers Guide for Low Emission Strategy measures	2016	
5	City Deal	Transport Planning & Infrastructure Promoting Travel Alternatives	Bus route improvements & Promotion of cycling/ Sustainable Transport	CCC/ Cambridge City Council	2015-2030	2016-	Connect existing and new residential and employment areas with high quality public transport networks, including new orbital bus routes around Cambridge & comprehensive network of pedestrian and cycle route.	None	Proposed scheme for making bus, cycle and walking journeys more convenient and safer from Northstowe announced.	Tranche 1 schemes by 2019	

CCC – Cambridgeshire County Council

SCDC – South Cambridgeshire District Council

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

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of $PM_{2.5}$ (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that $PM_{2.5}$ has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

South Cambridgeshire District Council undertakes monitoring for PM2.5 at one automatic monitoring station, Girton. In terms of assessing the data, guidance outlined in the Air Quality Expert's Group, '*Fine Particulate Matter (PM2.5) in the United Kingdom'* (2012) is considered relevant and indicates that an exposure reduction target will be the key driver for UK policy on exposure to PM2.5 based on an Average Exposure Indicator (AEI). Measures outlined in Table 2.2 are also expected to have a beneficial effect on concentrations of PM2.5 and additional monitoring for the pollutant will be implemented in 2016 at Northstowe Phase I through a Section 106 agreement. Future revisions of the Councils Air Quality Strategy will take PM2.5 into account more specifically and include ties to the Public Health Outcomes Framework (England) where possible.

Table 2.3 National Exposure Reduction Targets for PM2.5

Exposure reduction target relative to the AEI (average exposure indicator)[1] in 2010[2]		Year by which the exposure reduction target shouldbe met
Initial concentration, µg m^{-3}	Reduction target, %	
less than or equal to 8.5	0	2020
more than 8.5 but less than 13	10	
13 to less than 18	15	
18 to less than 22	20	
22 or more	All appropriate measures to achieve 18 µg m^{-3}	

1 The AEI is derived from three-year average urban background measurements (i.e. 2009, 2010, 2011 for 2010) as defined in the EU Ambient Air Quality Directive (2008/50/EC).
2 Where the AEI in the reference year is 8.5 µg m^{-3} or less, the exposure reduction target is zero. The reduction target is also zero in cases where the AEI reaches the level of 8.5 µg m^{-3} at any point of time during the period 2010 to 2020 and is maintained at or below that level.

Source - Air Quality Expert's Group, 'Fine Particulate Matter (PM2.5) in the United Kingdom' (2012)

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

3.1 Summary of Monitoring Undertaken

South Cambridgeshire District Council operated automatic monitoring stations at 3 different sites within the District in the year 2015. These are Orchard Park (Cambridge), Girton and Impington monitoring sites for measuring PM_{10} and NO_2 apart from the Girton monitoring site that also measures $PM_{2.5}$.

The monitoring stations at Girton and Impington are considered to be sites representative of nearby receptors situated alongside the A14, whilst the Orchard Park monitor is located within the grounds of a school. All three monitoring sites with the exception of Girton are located within the existing Air Quality Management Area for NO_2 and PM_{10}.

The data capture during 2015 for NO_2 was generally good but slightly below the required 90% at Impington and Orchard Park due to instrument comms issues and breakdowns, which was also the case for PM_{10} at Orchard Park, recording the lowest data capture of all monitoring stations at 77.3%

Following the bias adjustment process, all the nitrogen dioxide diffusion tubes showed compliance with the annual mean objective for nitrogen dioxide. Moreover, the current monitoring results compare favourably to the results of 2014 thereby continuing an improving trend recorded over recent years, and have a good data capture.

South Cambridgeshire District Council has examined the results from monitoring in the district. Concentrations both within the AQMA and outside of it are all below the national objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

3.1.1 Automatic Monitoring Sites

- At Impington, Orchard Park and Girton Road the annual and daily mean objectives for NO_2 and PM_{10} were achieved and show a slight improvement on previous years' data.

- For all sites, the daily mean objectives i.e. (days where concentrations were calculated to be >50μg/m^3) and hourly mean objectives i.e. (hours where concentrations were calculated to be >200μg/m^3) for PM_{10} and NO_2 were also achieved.
- Results are given in Tables A.3 - A.7 (in Appendix A).
- National monitoring results and associated information are also available at this link.

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

South Cambridgeshire District Council undertook non- automatic (passive) monitoring of NO_2 at 27 sites during 2015 Table A.2 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) and bias adjustment for the diffusion tubes are included in Appendix C.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for “annualisation” and bias. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

The monitoring stations at Girton Road and Impington are considered to be sites representative of nearby receptors situated alongside the A14, whilst the Orchard Park monitor is located within the grounds of a school. All of the monitoring stations with the exception of the Girton monitoring site are located within the existing Air Quality Management Area for NO2 and PM10.

All continuous and passive NO_2 monitoring sites achieved respective National Annual Mean Objectives.

Table A.5 in Appendix A compares the ratified and adjusted monitored NO_2 annual mean concentrations for the past 5 years with the air quality objective of 40µg/m^3. Graphs showing the recent trends in measured NO2 concentrations are presented in Figures A.1 – A.6.

For diffusion tubes, the full 2015 dataset of monthly mean values is provided in Appendix B.

Table A.4 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past 5 years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year.

Annual means greater than 60µg/m^3 may indicate that an exceedance of the 1-hour mean objective is also likely. No such exceedances were recorded at any monritong site.

3.2.2 Particulate Matter (PM_{10})

In 2015, fine particles were monitored at all the three different AQ monitoring locations within the district.

The annual and daily mean objectives were achieved at all the three monitoring sites at Girton, Orchard Park and Impington with generally good data capture.

Table A.5 in Appendix A compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past 5 years with the air quality objective of 40µg/m^3.

Table A.6 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past 5 years with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

3.2.3 Particulate Matter ($PM_{2.5}$)

South Cambridgeshire District Council monitored PM2.5 at a continuous monitoring station in Bar Hill prior to the eventual closure of the site in 2012. However, a new monitoring site for PM2.5 was commissioned December, 2011 at Girton. The concentrations at both the previous and new site have remained fairly stable throughout the monitoring periods. The highest level recorded was 14μg/m3 measured in 2013 at the new location. The annual mean concentrations have stabilised at 11 - 14μg/m3.

Table A.7 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past 5 years whilst Figure A.8 shows the annual trends in concentrations.

3.2.4 Sulphur Dioxide (SO_2)

South Cambridgeshire Council do not currently monitor sulphur dioxide concentrations as no relevant sources have been identified in previous rounds of updating and screening.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
IMP	Impington (A14)	Roadside	543739	261625	NO_x (NO_2) PM_{10}	Y	ET M200E ET BAM1020	Y (12m)	N/A	2.0
ORCH	Orchard Park Primary School (A14)	Urban background	544558	261579	NO_x (NO_2) PM_{10}	Y	ET M200E ET BAM1020	Y (1m)	N/A	2.0
GIRT	Girton	Roadside	542676	260667	NO_x (NO_2) PM_{10},$PM_{2.5}$	N	ET M200E ET BAM1020	Y (5m)	5	2.0

(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

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA ?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
DT1	1 Coppice, Histon	Urban background	544230	262048	NO_2	N	7m	0.5m	N	2
DT2	The Gables, High Street, Histon	Roadside	543770	263678	NO_2	N	5m	1m	N	2
DT3	Hill Farm Cottages, Lolworth	Roadside	536926	264956	NO_2	Y	N	4m	N	2
DT4	White Lion, 96 High St., Sawston	Urban background	548600	249136	NO_2	N	5m	1m	N	2
DT5	Rhadegund Farm Co. Lolworth	Roadside	538744	263640	NO_2	Y	1m	33m	N	2
DT6	64 High St., Linton	Roadside	556179	246815	NO_2	N	7m	0.5m	N	2
DT7	20 High St.,Tadlow	Roadside	528131	247399	NO_2	N	10m	2m	N	2
DT8	47 High Street, Harston	Urban background	542554	251002	NO_2	N	5m	1m	N	2

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA ?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
DT9	3 Garner Close, Milton	Urban background	547452	263175	NO_2	N	5m	1m	N	2
DT10	1A Weavers Field, Girton	Urban background	542537	261467	NO_2	Y	15m	1m	N	2
DT11	Heath Hse., A505, Thriplow	Urban background	544034	244585	NO_2	N	10m	1m	N	2
DT12	19 Lonetree Av., Impington	Roadside	544119	261862	NO_2	Y	7m	0.5m	N	2
DT13	1 Brook Close, Histon	Urban Background	543955	263588	NO_2	N	2m	1m	N	2
DT14	22 Water Lane, Histon	Roadside	544050	263306	NO_2	N	2m	0.5m	N	2
DT15	72 Cambridge Rd, Impington	Urban background	544243	261819	NO_2	Y	7m	0.5m	N	2
DT16	Hackers Fruit Farm, Lolworth	Roadside	539846	262826	NO_2	Y	5m	12m	N	2
DT17	5 Mill Lane, Sawston	Roadside	548545	249366	NO_2	N	15m	1m	N	2

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA ?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
DT18	1 Catchall Farm Cottages	Roadside	540509	262290	NO_2	Y	1m	10m	N	2
DT19	Crafts Way, Bar Hill	Roadside	538472	263675	NO_2	N	15m	1m	N	2
DT20	Chieftain Way, Arbury Park	Roadside	544828	261738	NO_2	Y	1m	0.5m	N	2
DT21	Topper Street, Arbury Park	Roadside	545056	261784	NO_2	Y	1m	0.5m	N	2
DT22	Flack End, Arbury Park	Roadside	545435	261906	NO_2	Y	2m	35m (from A14 WB)	N	2
DT23a	Orchard Park School	Urban background	544557	261571	NO_2	Y	1m	50m	Y	2
DT23b	Orchard Park School	Urban background	544557	261571	NO_2	Y	1m	50m	Y	2
DT23c	Orchard Park School	Urban background	544557	261571	NO_2	Y	1m	50m	Y	2
DT24	Co-op, High Street, Histon	Roadside	543768	263708	NO_2	Y	1.5m	2.6m	N	2

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA ?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
DT25	13 Engledow Drive, Orch. Park	Urban background	545259	261873	NO_2	Y	5m	4.5m	N	2
DT26	22 Topper Street , Arbury Park	Roadside	545169	261764	NO_2	Y	4.2m	0.2m	N	2
DT27	Church Lane, Little Abington	Urban background	552961	249251	NO_2	Y	14m	2.0m	N	2

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

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	NO_2 Annual Mean Concentration ($\mu g/m^3$) (3)				
					2011	2012	2013	2014	2015
IMP	Roadside	Automatic	99.1	99.1	31	31	27	23	22
ORCH	Urban Background		89.8	89.8	25	21	22	19	18
GIRT	Roadside		88.5	88.5	N/A	27	26	25	24
DT1	Urban background	Diffusion Tube	100	100	20.6	19.8	15.3	18.9	18.0
DT2	Roadside		100	100	36.3	33.8	28.2	31.5	31.7
DT3	Roadside		100	100	39.1	36.7	27.5	31.8	30.9
DT4	Urban background		83	83	27.8	29.2	28.0	28.3	24.7
DT5	Roadside		100	100	15.7	22.0	26.0	21.7	19.7
DT6	Roadside		83	83	30.7	32.4	28.2	31.1	28.4
DT7	Roadside		100	100	13	12.4	14.1	11.9	10.8
DT8	Urban background		100	100	23.7	25.6	25.7	28.0	29.5

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2015 (%) [2]	NO_2 Annual Mean Concentration ($\mu g/m^3$) [3]				
					2011	2012	2013	2014	2015
DT9	Urban background	Diffusion Tube	92	92	20.8	20.2	19.9	17.3	17.0
DT10	Urban background		100	100	32.6	29.5	26.8	30.5	27.0
DT11	Urban background		100	100	29.1	27.2	25.9	28.2	27.1
DT12	Roadside		100	100	23.7	21.8	20.2	21.1	18.6
DT13	Urban Background		100	100	21.1	19.5	19.0	19.7	18.4
DT14	Roadside		100	100	31.2	29.1	25.2	28.6	25.3
DT15	Urban background		100	100	25.3	23.1	25.1	22.3	20.9
DT16	Roadside		100	100	28.5	**41.5**	**42.9**	38.0	34.0
DT17	Roadside		100	100	17.2	17.9	17.8	15.1	14.9
DT18	Roadside		100	100	25.6	24.4	26.4	25.4	22.5
DT19	Roadside		100	100	21.4	23.9	23.7	22.9	20.6

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	NO_2 Annual Mean Concentration ($\mu g/m^3$) (3)				
					2011	2012	2013	2014	2015
DT20	Roadside	Diffusion Tube	100	100	22.9	21.7	21.2	21.9	18.3
DT21	Roadside		100	100	22.5	21.7	22.0	20.8	18.9
DT22	Roadside		100	100	26.3	25.8	24.8	24.1	21.4
DT23a	Urban background		100	100	21.0	19.9	19.4	20.4	17.9
DT23b	Urban background		100	100	21.0	18.9	19.2	19.8	17.4
DT23c	Urban background		100	100	21.0	21.5	19.6	19.4	18.6
DT24	Roadside		100	100	22.9	22.2	21.1	21.2	19.3
DT25	Urban background		100	100	25.0	25.9	24.6	24.0	21.6
DT26	Urban background		100	100	23.6	24.0	21.6	21.5	21.1
DT27	Urban background		100	100	13.5	12.7	15.2	12.5	11.7

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

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

(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%).

(3) Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per Technical Guidance LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details

All diffusion tubes results have been bias adjusted as follows 2015 – 0.82, 2014 – 0.81, 2013 -0.80, 2012 – 0.79, 2011 – 0.84

Figure A.1 Trends in Annual Mean NO_2 Concentrations Measured at Automatic Monitoring Site at Impington from 2008 – 2015

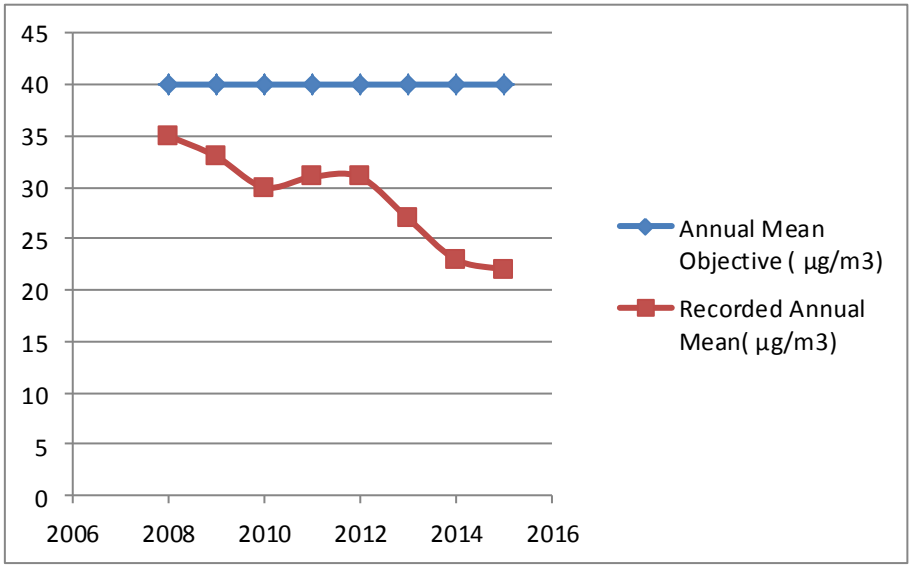


Figure A.2 Trends in Annual Mean NO_2 Concentrations Measured at Automatic Monitoring Site at Orchard Park from 2008 - 2015

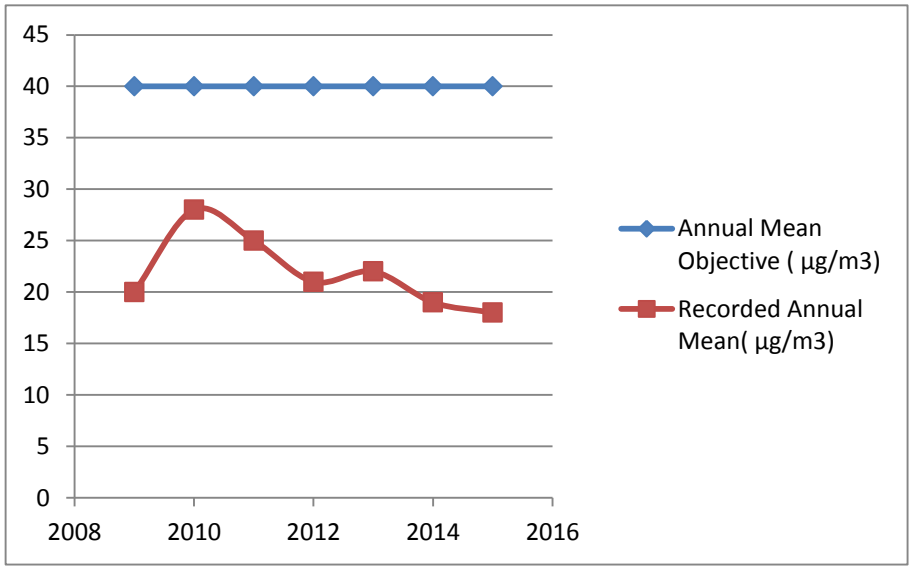


Figure A.3 Trends in Annual Mean NO_2 Concentrations Measured at Automatic Monitoring Site at Girton from 2008 – 2015

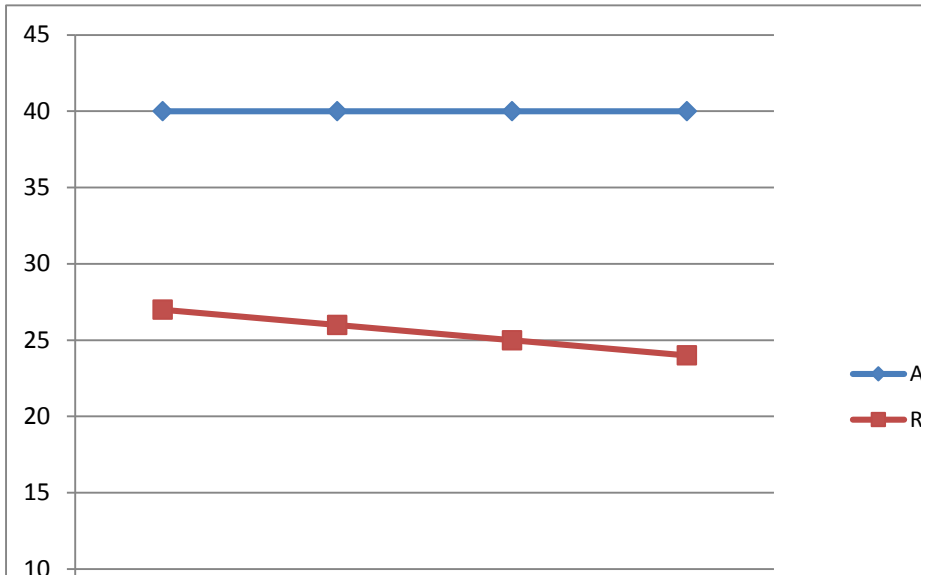


Figure A.4 Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites

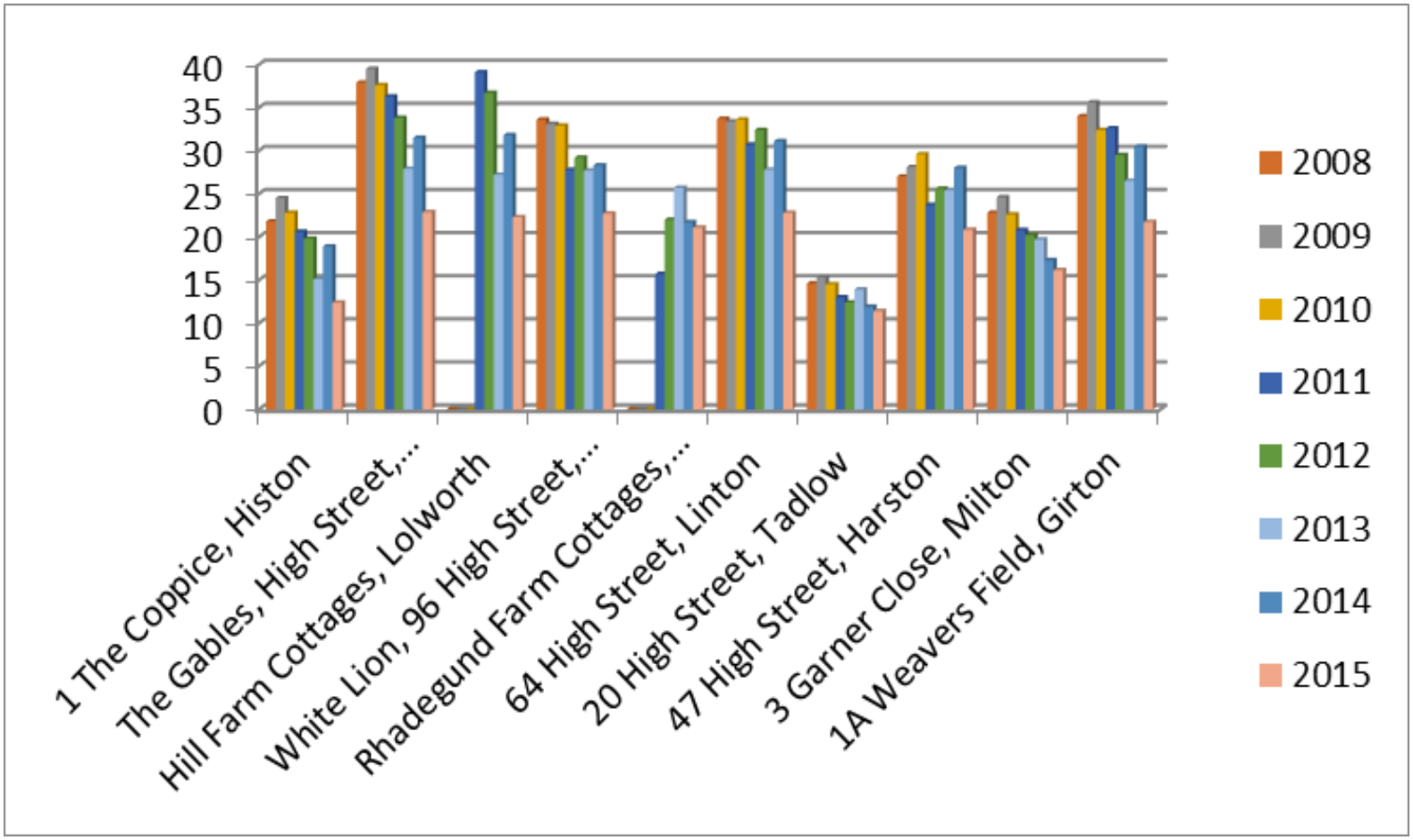


Figure A.5 Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites

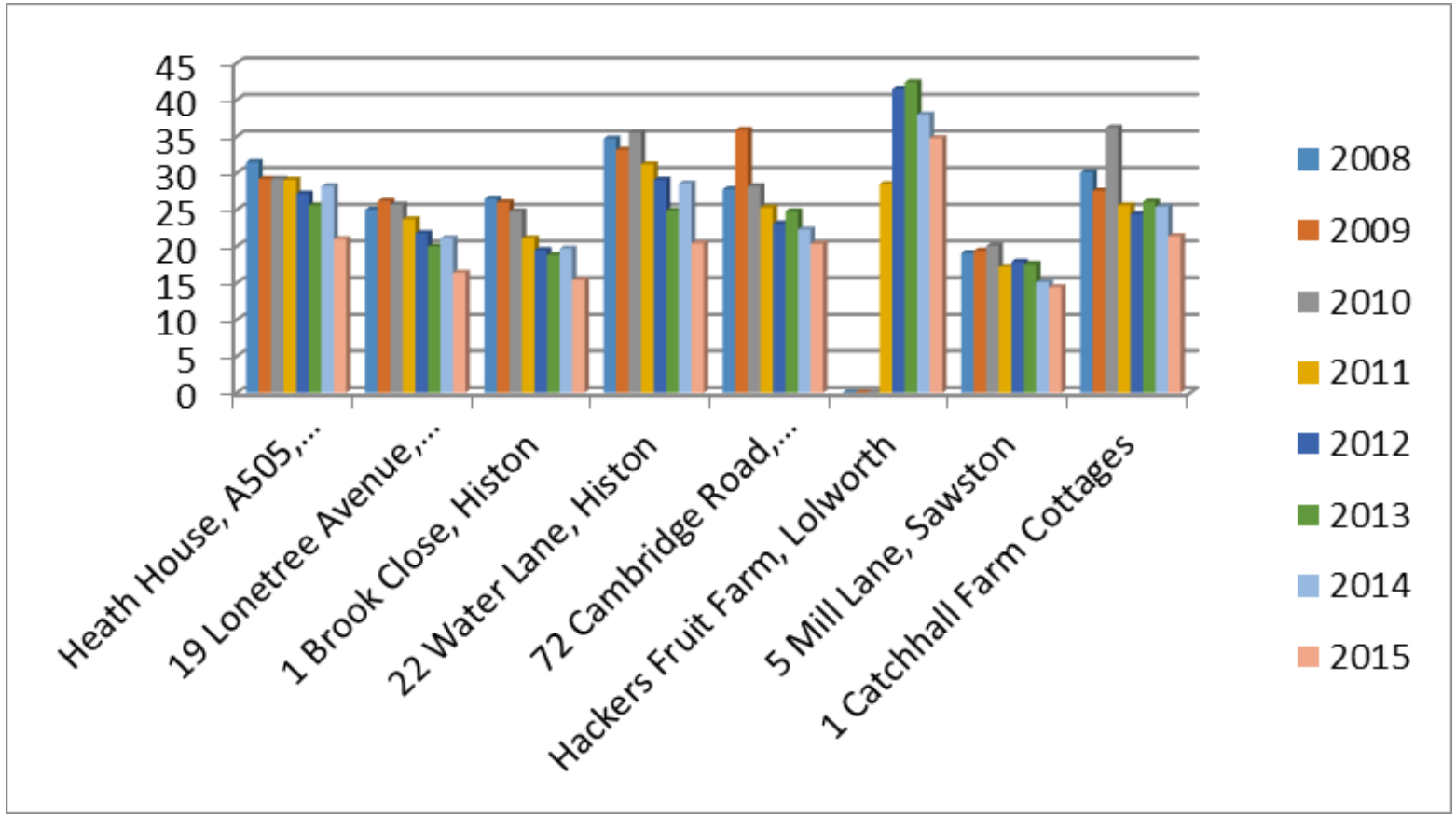


Figure A.6 Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites

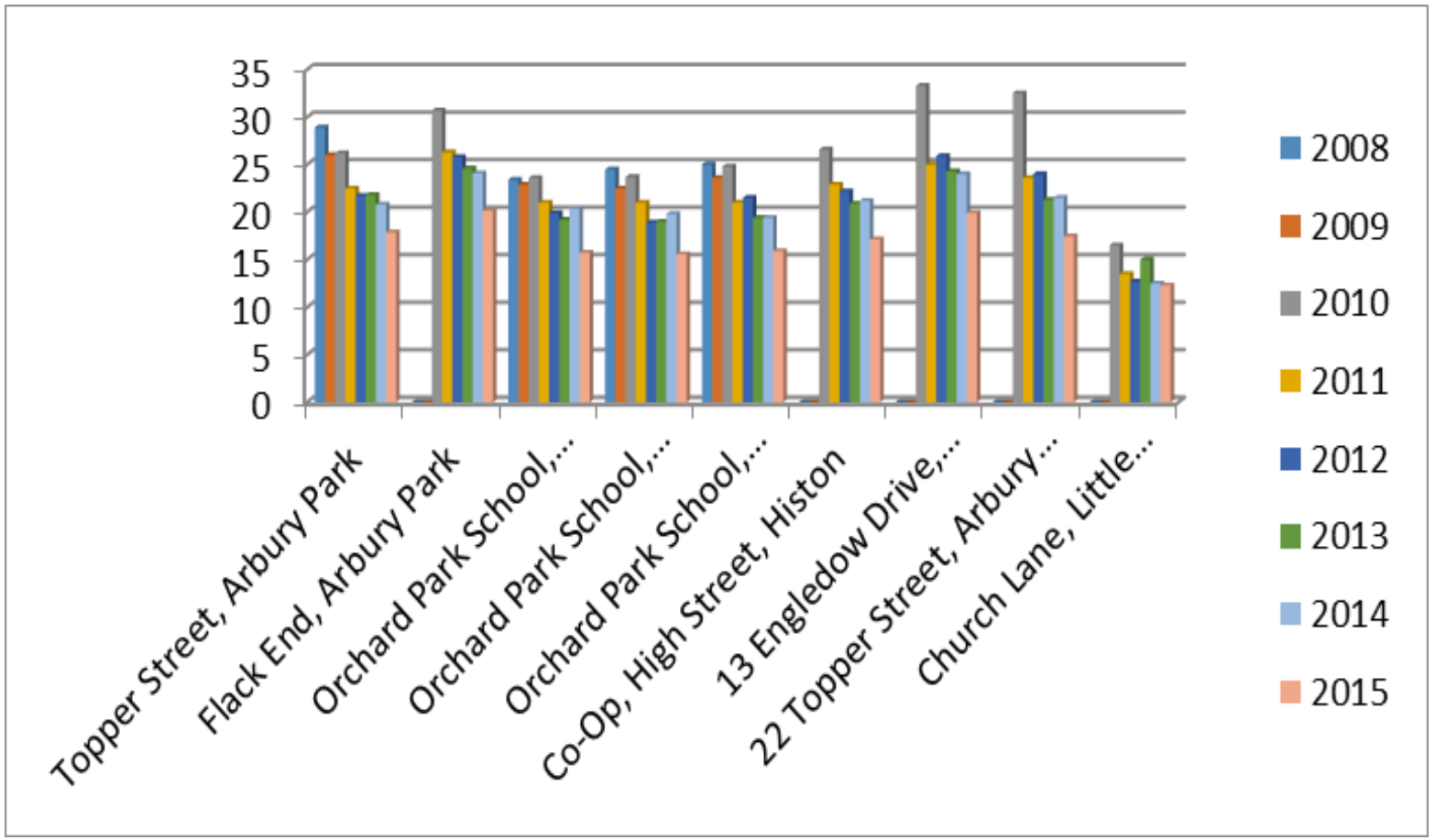


Table A.4 – 1-Hour Mean NO_2 Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	NO_2 1-Hour Means > 200µg/m^3 (3)				
					2011	2012	2013	2014	2015
IMP	Roadside	ET M200E (Chemiluminescence) ET BAM1020	99.1	99.1	0	0	1	0	0
ORCH	Urban Background	ET M200E (Chemiluminescence) ET BAM1020	89.8	89.8	0	0	0(86)	0	0(71)
GIRT	Roadside	ET M200E (Chemiluminescence) ET BAM1020	88.5	88.5	N/A	0	0	0	0(96)

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

(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%).

(3) If the period of valid data is less than 90%, the 99.8th percentile of 1-hour means is provided in brackets.

Table A.5 – Annual Mean PM_{10} Monitoring Results

Site ID	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	PM_{10} Annual Mean Concentration ($\mu g/m^3$) (3)				
				2011	2012	2013	2014	2015
IMP	Roadside	97.6	97.6	**54**	**58**	**55**	22	18
ORCH	Urban Background	77.3	77.3	23	21	22	22	16
GIRT	Roadside	89.8	89.8	N/A	26	30	16	11

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

(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 – 24-Hour Mean PM_{10} Monitoring Results - Comparison with 24-hour mean Objective

Site ID	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	PM_{10} 24-Hour Means > 50µg/m^3 (3)				
				2011	2012	2013	2014	2015
IMP	Roadside	97.6	97.6	**119 days**	**180 days**	21 days	4 days	2 days
ORCH	Urban Background	77.3	77.3	10 days	4 days	7 days	7 days	1 day (25)
GIRT	Roadside	89.8	89.8	N/A	16 days	23 days	2 days	1 day (25)

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

(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%).

(3) If the period of valid data is less than 90%, the 90.4th percentile of 24-hour means is provided in brackets.

Figure A.7 Trends in Annual Mean PM_{10} Concentrations in $\mu g/m^3$ from 2008 – 2015

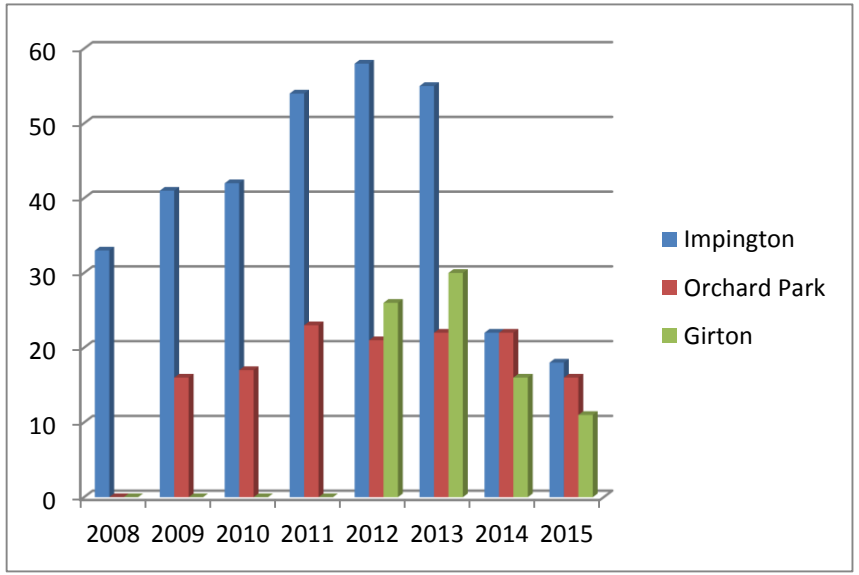


Figure A.8 Trends in Annual Mean PM_{10} in Comparison with the Daily Mean Objectives in ($\mu g/m^3$)

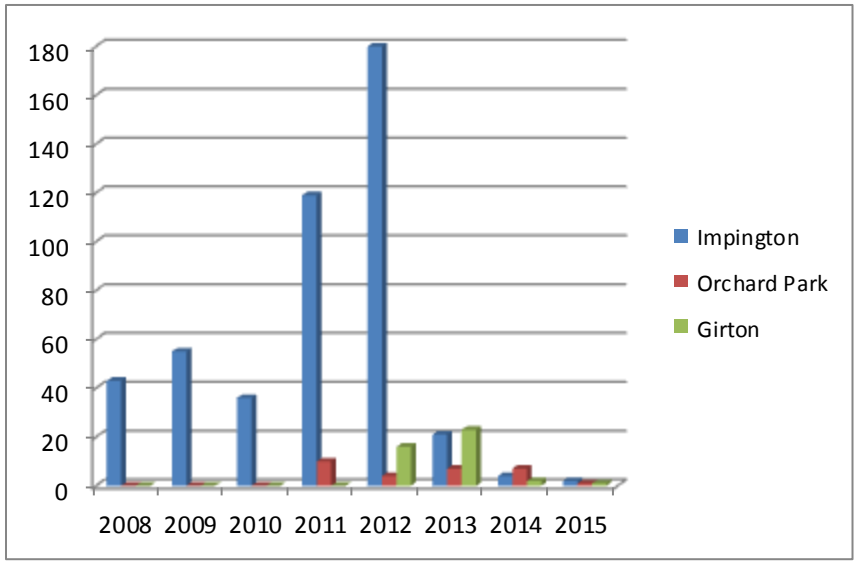


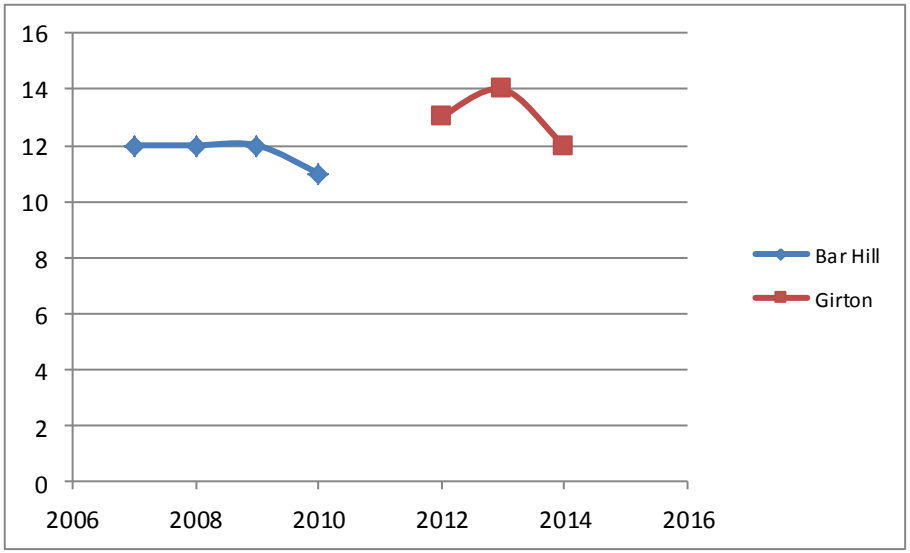
Table A.7 – $PM_{2.5}$ Monitoring Results

Site ID	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2015 (%) (2)	$PM_{2.5}$ Annual Mean Concentration (µg/m^3) (3)				
				2011	2012	2013	2014	2015
GIRT	Roadside	94.3	94.6	N/A	13	14	12	11

(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.9 Trends in Annual Mean $PM_{2.5}$ Measured in (µg/m^3) at Bar Hill and Girton between 2007 - 2015



*Note Bar Hill site was de-activated in 2012 and the Girton site came online in 2011/12, hence the gaps in data.

Appendix B: Full Monthly Diffusion Tube Results for 2015

Table B.1 – NO_2 Monthly Diffusion Tube Results - 2015

Site ID	NO_2 Mean Concentrations (µg/m^3)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean	
													Raw Data	Bias Adjusted (1)
1 Coppice, Histon	26.6	30.9	20.3	19.8	16.4	14.7	20.6	19.7	20.1	25.1	24.7	24.7	**22.0**	18.0
The Gables, High Street, Histon	49.3	49.6	37.4	38.5	37.6	30.8	39.4	36.5	37.7	33.0	43.2	31.3	**38.7**	31.7
Hill Farm Cottages, Lolworth	46.8	51.7	28.5	33.2	33.0	30.3	37.3	36.1	35.8	31.4	44.3	43.8	**37.7**	30.9
White Lion, 96 High St., Sawston	40.3	34.8	34.2	34.3	25.8	missing	22.0	22.4	27.3	29.3	30.6	missing	**30.1**	24.7
Rhadegund Farm Co. Lolworth	24.3	24.8	28.5	36.0	19.4	22.8	16.8	20.2	29.5	33.6	17.0	15.2	**24.0**	19.7
64 High St., Linton	35.3	35.6	37.5	34.0	35.0	34.0	38.7	32.9	missing	missing	35.1	28.7	**34.7**	28.4
20 High St.,Tadlow	20.1	20.4	12.9	10.9	9.7	7.4	6.7	10.8	11.3	14.9	17.0	15.7	**13.2**	10.8

Site ID	NO_2 Mean Concentrations ($\mu g/m^3$)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean	
													Raw Data	Bias Adjusted (1)
47 High Street, Harston	43.1	45.6	36.7	36.5	25.1	24.8	28.3	29.0	38.4	38.2	40.6	45.8	**36.0**	29.5
3 Garner Close, Milton	31.4	28.9	19.7	18.5	17.7	13.0	13.8	15.9	20.7	22.9	missing	25.7	**20.7**	17.0
1A Weavers Field, Girton	42.7	38.1	28.0	31.2	25.0	23.5	30.8	27.6	32.2	35.0	38.9	42.3	**32.9**	27.0
Heath Hse., A505, Thriplow	37.9	39.5	30.8	35.0	29.8	26.0	31.0	30.9	31.8	33.2	35.1	36.0	**33.1**	27.1
19 Lonetree Av., Impington	28.9	24.3	20.6	21.4	18.3	13.3	17.0	20.1	22.3	24.6	30.0	31.7	**22.7**	18.6
1 Brook Close, Histon	31.7	32.4	16.0	22.0	17.0	15.9	16.7	17.0	22.2	29.5	24.8	23.4	**22.4**	18.4
22 Water Lane, Histon	38.0	42.1	32.2	27.9	21.6	20.9	29.9	26.1	31.5	32.8	36.2	31.3	**30.9**	25.3
72 Cambridge Rd, Impington	33.1	31.4	24.0	25.9	20.3	15.4	22.0	22.7	22.4	23.7	29.6	35.6	**25.5**	20.9
Hackers Fruit Farm, Lolworth	41.9	42.8	51.2	60.0	35.1	25.1	32.2	36.0	47.2	69.4	34.0	23.2	**41.5**	34.0

Site ID	NO_2 Mean Concentrations (µg/m^3)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean	
													Raw Data	Bias Adjusted (1)
5 Mill Lane, Sawston	25.2	25.2	15.9	20.2	12.7	12.8	14.4	17.5	16.6	19.2	18.0	19.8	**18.1**	14.9
1 Catchall Farm Cottages	28.8	27.4	30.7	40.7	18.7	29.4	21.5	27.3	32.4	39.8	16.8	15.9	**27.5**	22.5
Crafts Way, Bar Hill	27.6	33.9	32.7	29.2	15.9	15.9	15.5	21.7	29.6	34.5	22.5	22.1	**25.1**	20.6
Chieftain Way, Arbury Park	32.3	20.5	27.4	23.4	17.3	15.3	17.6	18.6	23.7	27.7	22.9	21.1	**22.3**	18.3
Topper Street, Arbury Park	32.9	31.1	20.8	20.3	18.4	12.2	16.2	17.3	27.1	30.4	28.5	20.7	**23.0**	18.9
Flack End, Arbury Park	35.9	36.7	28.7	25.5	18.6	19.2	16.0	19.0	27.8	34.1	24.2	27.1	**26.1**	21.4
Orchard Park School	30.7	25.2	25.2	20.6	18.4	16.2	18.1	17.3	23.6	26.1	20.7	20.1	**21.9**	17.9
Orchard Park School	29.1	26.6	19.1	19.4	16.8	14.8	18.8	17.2	23.8	24.8	24.7	20.1	**21.3**	17.4
Orchard Park School	29.6	30.3	25.2	21.3	19.8	16.8	16.6	16.5	23.0	26.9	25.9	20.0	**22.7**	18.6

Site ID	NO_2 Mean Concentrations ($\mu g/m^3$)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean	
													Raw Data	Bias Adjusted (1)
Co-op, High Street, Histon	29.4	29.9	22.7	25.5	16.0	14.0	20.1	17.6	26.3	26.4	25.5	28.6	**23.5**	19.3
13 Engledow Drive, Orch. Park	36.0	30.9	30.5	25.4	22.6	20.0	16.4	21.7	30.2	37.3	25.7	19.7	**26.4**	21.6
22 Topper Street , Arbury Park	39.1	36.9	25.1	23.6	21.8	16.5	16.3	19.6	28.8	31.8	26.3	22.9	**25.7**	21.1
Church Lane, Little Abington	21.5	22.2	12.8	14.3	11.4	8.1	8.5	10.6	12.5	18.5	15.0	15.7	**14.3**	11.7

(1) See Appendix C for details on bias adjustment

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

Automatic Monitoring

- QA/QC of automatic monitoring data is carried out by AEA Technology (http://www.aeat.co.uk) now Ricardo – AEA.
- Tri-annual audits of the monitoring stations are carried out by AEA Technology.
- Services of all the three AQ monitoring stations i.e. Impington, Girton and Orchard Park are carried out bi-annually by the equipment suppliers; Enviro - Technology.
- The sites are manually calibrated on a monthly basis by the Local Site Operative. The output from the calibrations is forwarded to AEAT now Ricardo – AEA for QA/QC and ratification purposes.
- South Cambridgeshire District Council is a member of the Calibration Club, operated by AEAT now Ricardo – AEA.
- All NOx analysers are chemiluminescence analysers
- All particulate matter analysers are BAMs. In line with current guidance, BAM data is multiplied by 1.3 to give the gravimetric equivalent.

Non-Automatic Monitoring

- The monitoring of nitrogen dioxide by diffusion tube has been an on-going project since 1995.
- During 2015, NO2 monitoring was undertaken at 27 sites within the district using passive diffusion tubes. However, the Orchard Park School monitoring site was used as a co-location site with triplicate tubes co-located with the continuous monitor.
- The tubes are supplied and analysed by Environmental Scientifics Group (ESG - formerly Harwell Scientifics), a UKAS accredited laboratory (0322). The tube preparation method is 50% TEA in Acetone and analysis is by desorption with distilled water, with the extract analysed using a segmented flow auto analyser with ultraviolet detection. The exposure periods for the diffusion tubes are those of the UK Nitrogen Dioxide Diffusion Tube Network run by NETCEN which effectively is a four or five week duration. QA/QC procedures are as detailed in the UK NO2 Diffusion Tube Network Instruction Manual which can be found here.

- The tube results have been annualised where data capture was less than 90%, which related to diffusion tube sites DT4 (Sawston) & DT6 (Linton).

- A laboratory bias adjustment factor of 0.82 (taken from the 2015 Orchard Park Primary School co-location site, grid reference 544557, 261571) has been applied to the 2015 diffusion tube results.

- The address of the analysing lab is:

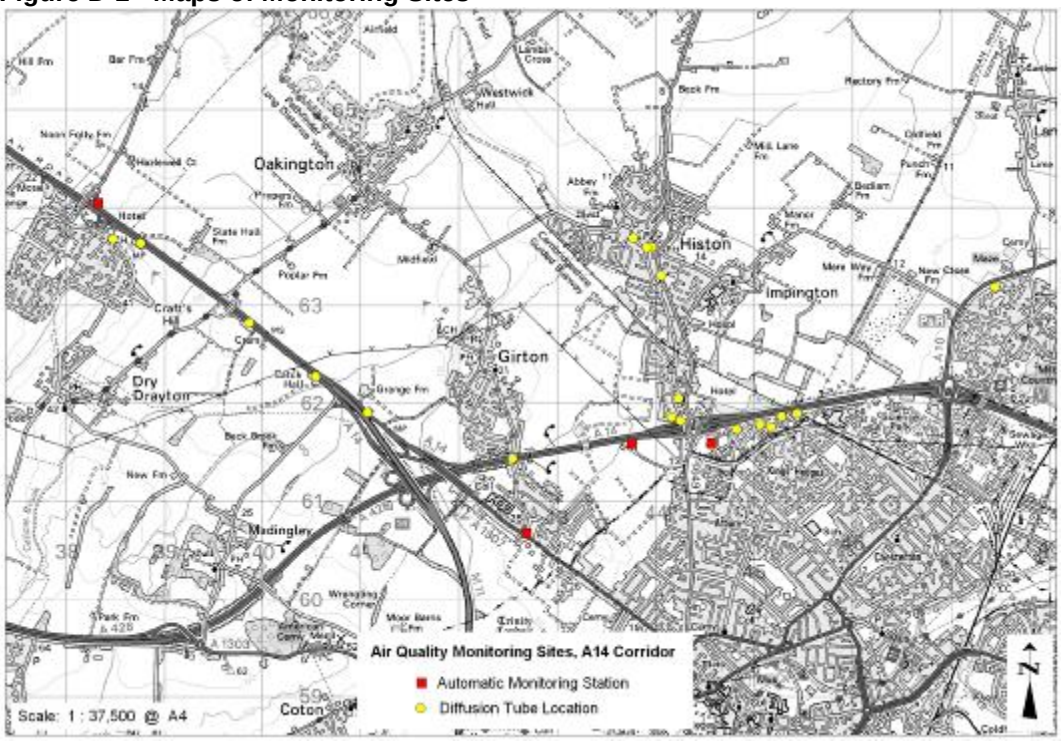
  Environmental Scientifics Group (ESG) Ltd
  12 Moorbrook
  Southmead Industrial Park
  Didcot
  Oxon
  OX11 7HP

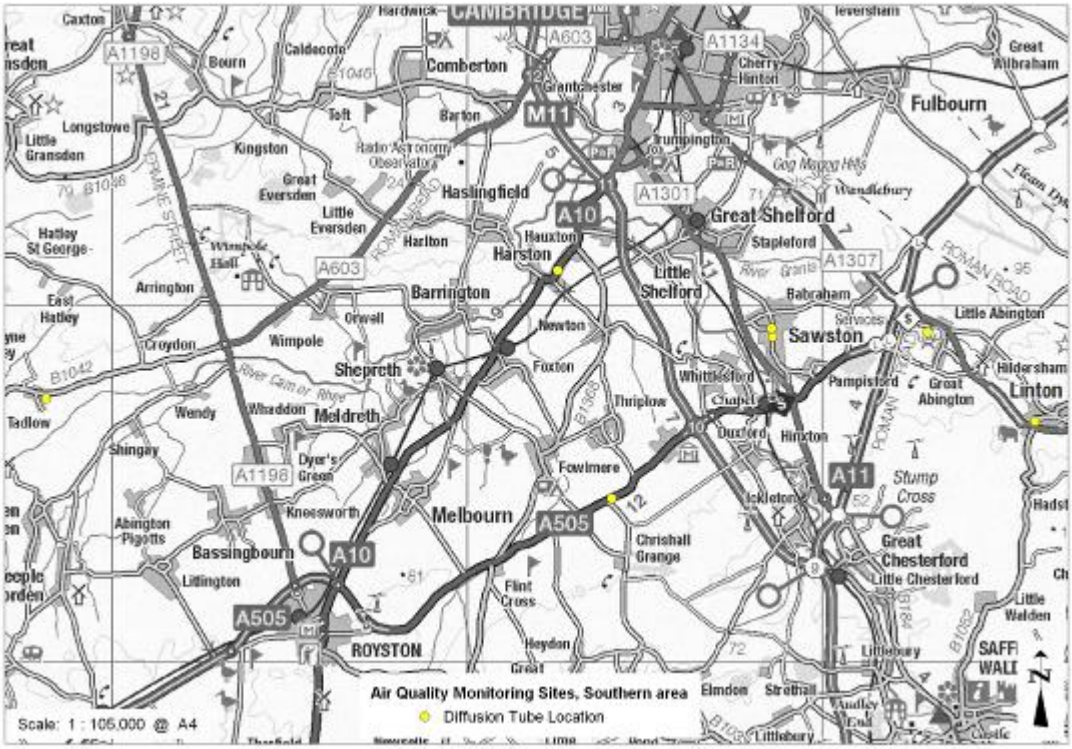
- ESG Ltd confirms that the methods and procedures they follow meet the guidelines set out in Defras' "Diffusion Tubes for Ambient Monitoring: Practical Guidance".

- ESG takes part in the WASP Proficiency Scheme. The laboratory performance is rated at the highest level of "good".

Appendix D: Map(s) of Monitoring Locations

Figure D 1 - Maps of Monitoring Sites





Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England

Pollutant	Air Quality Objective[4]	
	Concentration	Measured as
Nitrogen Dioxide (NO_2)	200 µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m^3	Annual mean
Particulate Matter (PM_{10})	50 µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350 µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
	266 µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

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

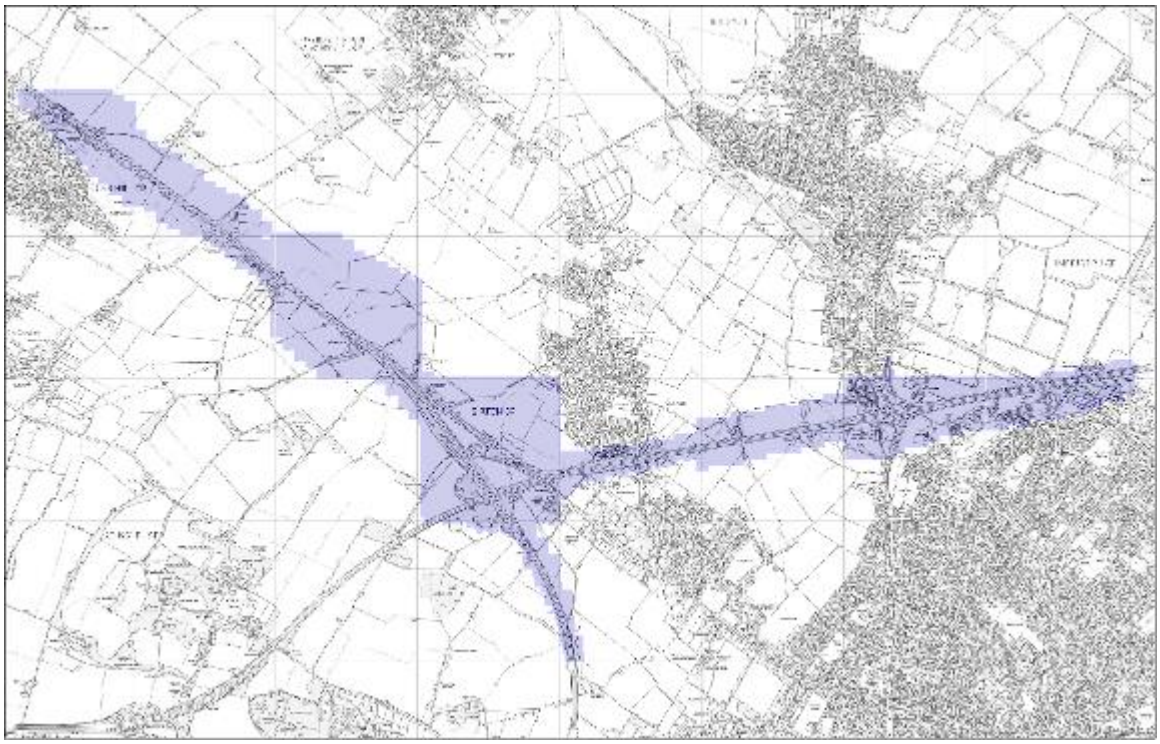
Table E.2: Summary of previous review and assessment work

Report	Year	Conclusion
Review and Assessment	1998	The report progress benzene, 1-3 butadiene, lead, carbon monoxide, PM_{10} and nitrogen dioxide to a Stage 2 assessment. The overall conclusion was that all objectives were likely to be met.
Review and Assessment	2000	All objectives likely to be met, however, given the increasing traffic on the A14 and the introduction of new industrial sources, it was concluded that detailed monitoring would be required for nitrogen dioxide, PM_{10} and sulphur dioxide.
Updating and Screening Assessment	2003	Based on monitoring results, it was concluded that all objectives were likely to be met.
Progress Report	2004	Monitoring results were showing exceedances of the annual mean for nitrogen dioxide along a stretch of the A14, therefore a Detailed Assessment was required for NO_2. All other objectives were predicted as likely to be met.
Detailed Assessment of Nitrogen Dioxide Along the A14 Corridor	2006	The annual mean objective for nitrogen dioxide was not likely to be met along the A14 between Bar Hill and Milton; therefore, it was necessary to declare an Air Quality Management Area.
Progress Report	2007	Monitoring results were showing exceedances of the daily mean for PM_{10} along a stretch of the A14, therefore a Detailed Assessment was required for PM_{10}. Monitoring of NO_2 along the A14 continued to show exceedances of the annual mean objective. All other objectives were predicted as likely to be met.
Detailed Assessment of PM_{10} Along the A14 Corridor	2008	The daily mean objective for PM_{10} was not likely to be met along the A14 between Bar Hill and Milton; therefore, it was necessary to declare an Air Quality Management Area.

Report	Year	Conclusion
Progress Report	2008	A Further Assessment of NO_2 and PM_{10} were required. Objectives for all other pollutants were predicted as likely to be met.
Further Assessment of nitrogen dioxide and PM_{10} Along the A14 Corridor	2008	The AQMA for NO_2 and PM_{10} was declared. An Air Quality Action Plan (AQAP) is required and consultation is underway for its development.
Updating and Screening Assessment	2009	Based on the monitoring results from the previous year, it was concluded that levels of NO_2 and PM_{10} along the A14 between Bar Hill and Milton would remain above the national objective. No other significant developments or increases in traffic or industrial emissions were identified.
Air Quality Action Plan	2010	Acceptance of Air Quality Action Plan by Defra. Detailed priority actions to be worked on over the coming years.
Progress Report	2010	Progress made towards improving air quality with improvements to local policy and strategy. No significant local / infrastructure changes.
Progress Report	2011	During 2010, the objectives for nitrogen dioxide were met at all monitoring locations. However, the daily PM_{10} objective was exceeded at the Bar Hill and Impington continuous monitoring stations and the annual mean PM_{10} objective was exceeded at Impington.
Modelling Assessment (not submitted as review and assessment report)	2011	As a result of recent monitoring results and review of the Air Quality Management Area, an air quality assessment was conducted using ADMS-Urban model the air quality along A14. In summary: • The modelling study concluded that there continues to be exceedances of air quality objectives for NO_2 (annual mean) and PM_{10} (daily mean) on both the north and south sides of the A14. • The modelling study shows that, despite current exceedances, all locations will achieve national objectives by 2016. • Depending on future monitoring, it is possible that the AQMA may have to be expanded on the north side of the A14 to incorporate Hill Farm Cottages at Swavesey • If monitoring at all locations on the south side of the A14 continue to indicate that national objectives are being achieved at those locations, the AQMA may be modified so that it only incorporates the north side of the A14 (no exceedances, no need for an AQMA).
Updating and Screening Assessment	2012	No new sources identified for any Detailed Assessment to have been required. However, an NO_2 (annual mean) in excess of the 40 $\mu g/m^3$ objectives was measured at one of the automatic monitoring sites in Bar Hill. There is no exceedance of the NO_2 1-hour mean objective at any of the automatic monitoring stations but an annual mean PM_{10} concentration in excess of the 40 $\mu g/m^3$ objective was measured at the Impington automatic monitoring site. The 50 $\mu g/m^3$ 24-hr mean objective was exceeded 119 times at the same site whilst all the air quality objectives were achieved at other monitoring locations of relevant exposure outside the existing AQMA.
Progress Report	2013	Whilst there are no new sources identified for detailed assessment to be carried out, monitoring data showed exceedances of the daily and annual mean objective for PM_{10} at the Impington monitoring station but this with Nitrogen Dioxide was achieved at the Orchard Park and Girton monitoring stations whilst the NO_2 objectives was also achieved at the Impington site.

Report	Year	Conclusion
Progress Report	2014	There are no new sources identified for detailed assessment to be carried out whilst the daily and annual mean AQ objectives for NO_2 were achieved at Impington, Orchard Park and Girton. It was a similar achievement for the PM_{10} at Girton and Orchard Park but this was exceeded at Impington. Although little attention should be paid to the Impington PM_{10} result due to the low data capture at the site for this year.
Updating and Screening Assessment	2015	The objectives for NO_2 & PM_{10} were met at all the monitoring locations (continuous and passive monitoring). The assessment of new sources did not identify any new sources that have not been considered previously. A detailed assessment of any new sources was not therefore required.

Figure E 1 Map(s) of AQMA Boundary



The Air Quality Management Area (as pictured above) was initially declared in July 2007 following measured and modelled exceedances of the annual mean objective for nitrogen dioxide. The following year, exceedances of the daily mean objective for PM10 were identified at the Bar Hill and Impington continuous monitoring stations. As a result of this, a Detailed Assessment of PM10 was carried out. This led to the revocation of the original AQMA and the designation of a 2nd AQMA to include PM10 in July 2008. After discussions with Defra, it was decided that the boundary for the PM10 (which was originally slightly smaller than that of the NO2 AQMA) would be the same as the original boundary for nitrogen dioxide.

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
EU	European Union
FDMS	Filter Dynamics Measurement System
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
SCDC	South Cambridgeshire District Council
SO_2	Sulphur Dioxide

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