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DISTRICT COUNCIL

2013 Air Quality Progress Report for Mid Sussex District Council

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

Date (July, 2013)



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Department	Environmental Health
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Report Reference number	MSAQPR13
Date	July 2013

Executive Summary

Diffusion tube monitoring data for January to December 2012 has been used to assess compliance with the national air quality objectives.

Mid Sussex do not have any automatic monitoring sites.

Nitrogen dioxide (NO₂)

The 2012 annual means were below the nitrogen dioxide (NO₂) objective at 17 monitoring sites.

The objective was exceeded at 5 locations, one in East Grinstead and 4 in Hassocks.

Three of the sites in Hassocks have relevant exposure i.e. residential premises within 15m of a monitoring site.

2 of these sites are within the Air Quality Management Area (AQMA) declared in March 2012.

An Action Plan detailing how the detected NO₂ levels may be reduced is out for consultation with statutory consultees and the public. The consultation period ends in August 2013.

The draft action plan will be submitted to defra once it has been approved by Cabinet, in September 2013.

Particulate matter (PM10)

No further action required.

Sulphur dioxide

No further action required.

Benzene

No further action required.

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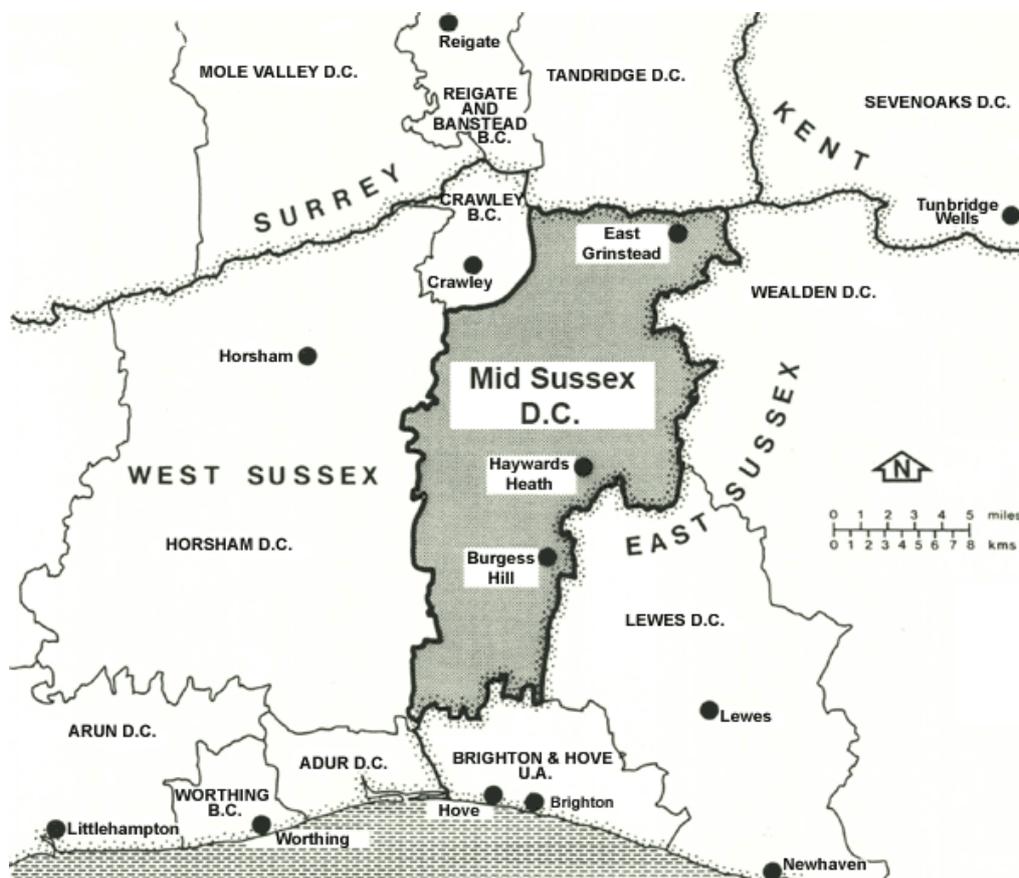
1 Introduction

1.1 Description of Local Authority Area

Mid Sussex District Council is located within the County of West Sussex. More than half the area is designated as an Area of Outstanding Natural Beauty. It lies on the eastern edge of the county and shares boundaries with East Sussex to the east, Surrey to the north and Brighton and Hove to the south.

Mid Sussex covers an area of some 33,400 hectares (approximately 128 square miles) and includes the three main towns of East Grinstead, Burgess Hill and Haywards Heath in a predominantly rural area, in which there are some 25 villages and many small hamlets.

The District has a population of approximately 128,000. Sixty percent of the population live in the three main towns with the remaining 40% living in the smaller villages and rural areas. It is well served by transport links to London, Gatwick Airport, the M25, the coast and Europe.



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 Local Air Quality Management process.

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).

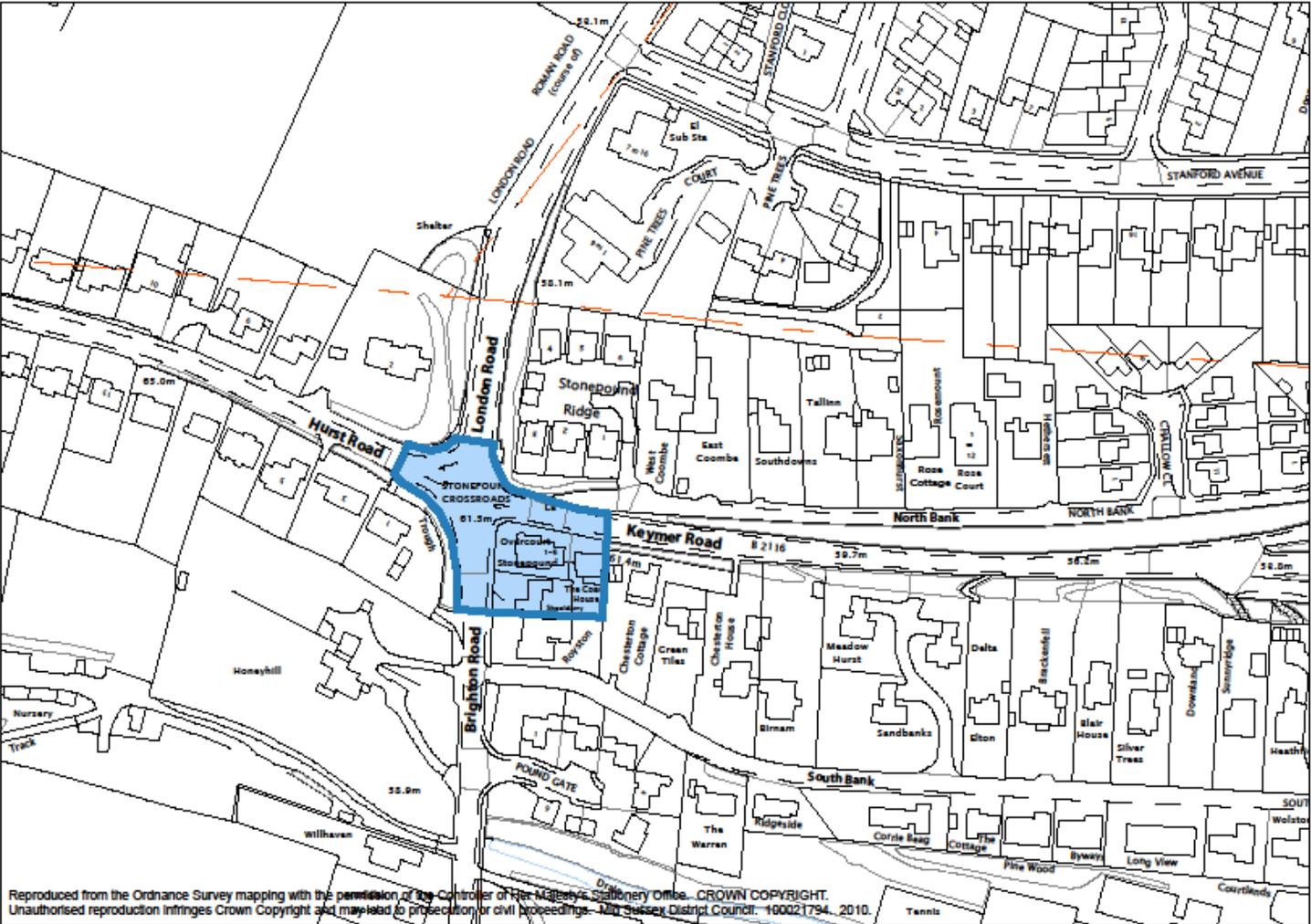
Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in England

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

Previous Review /Assessment	Date	Exceedences	AQMA's Declared	Outcome
Stage 1 Review & Assessment Report	Dec 1998	None	None	
Stage 2 Review & Assessment Report	June 2000	None	None	
Updating & Screening Assessment 2003	April 2003	None	None	
Air Quality Progress Report 2004	April 2004	None	None	
Air Quality Progress Report 2005	April 2005	None	None	
Updating & Screening Assessment 2006	April 2006	None	None	
Air Quality Progress Report 2007	April 2007	None	None	
Air Quality Progress Report 2008	April 2008	NO ₂ at 2 sites	None	Extra diffusion tubes to be installed. Detailed Assessment required for NO ₂
Updating & Screening Assessment 2009	May 2009	NO ₂ at 5 sites	None	Detailed Assessment required for NO ₂
Air Quality Progress Report 2010	May 2010	NO ₂ at 6 sites	AQMA to be declared	Detailed Assessment completed for NO ₂
Detailed Assessment 2011	May 2011	NO ₂ at 6 sites	AQMA Declared	Action Plan to be completed
Updating & Screening Assessment 2012	July 2012	NO ₂ at 3 sites	AQMA Declared	Action Plan completed and out for consultation

Figure 1.1 Map of Air Quality Management Area at Stonepound Hassocks



2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Mid Sussex do not have any automatic monitoring sites.

2.1.2 Non-Automatic Monitoring Sites

Across the District there are 22 locations where nitrogen dioxide (NO₂) diffusion tubes are located.

See Figure 2.1 and Table 2.1 for locations and details of the monitoring sites.

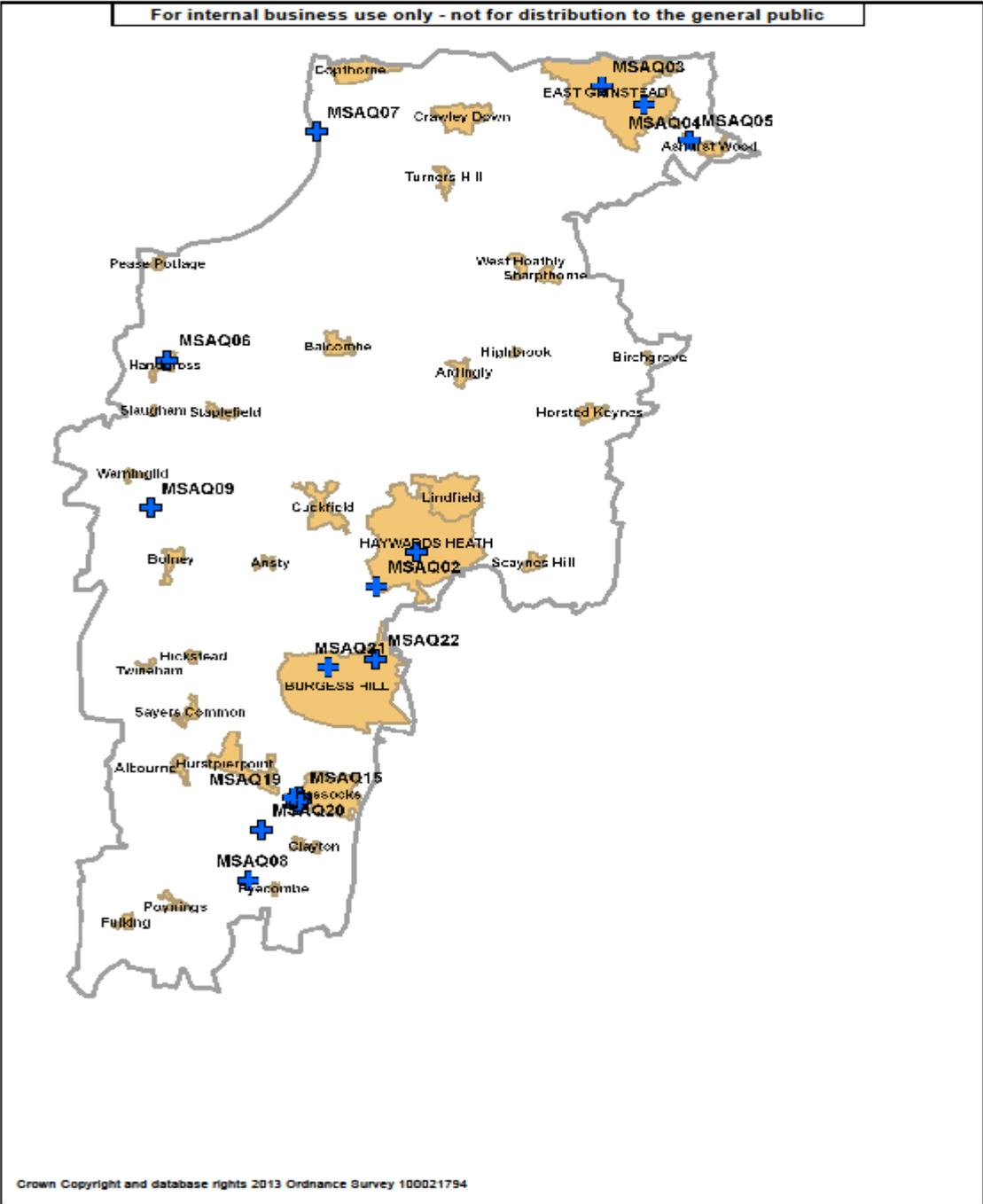
The Air Quality Progress Report 2008 indicated that the Stonepound crossroads area, located in Hassocks, was at risk of exceeding the annual mean air quality objective for nitrogen dioxide and consequently 8 additional monitoring sites were added to the network in July 2008.

The results for 2009 and 2010 confirmed further exceedences and consequently early in 2012 an Air Quality Management Area (AQMA) was declared.

Results at Stonepound for 2012 indicate there are 4 sites which exceed the annual mean air quality objective for nitrogen dioxide, 3 of which have relevant exposure.

Results from locations across the rest of the district confirmed there was one exceedence at the London Road East Grinstead site. This does not have relevant exposure.

Figure 2.1 Maps of non-automatic monitoring sites in Mid Sussex



01/07/2013
Scale
1:145000



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Air Quality Monitoring

June 2013

Site No. 1

South Road, Haywards Heath, adjacent The Cook Shop

 NO2 Monitoring Sites

Scale : 1:1,250





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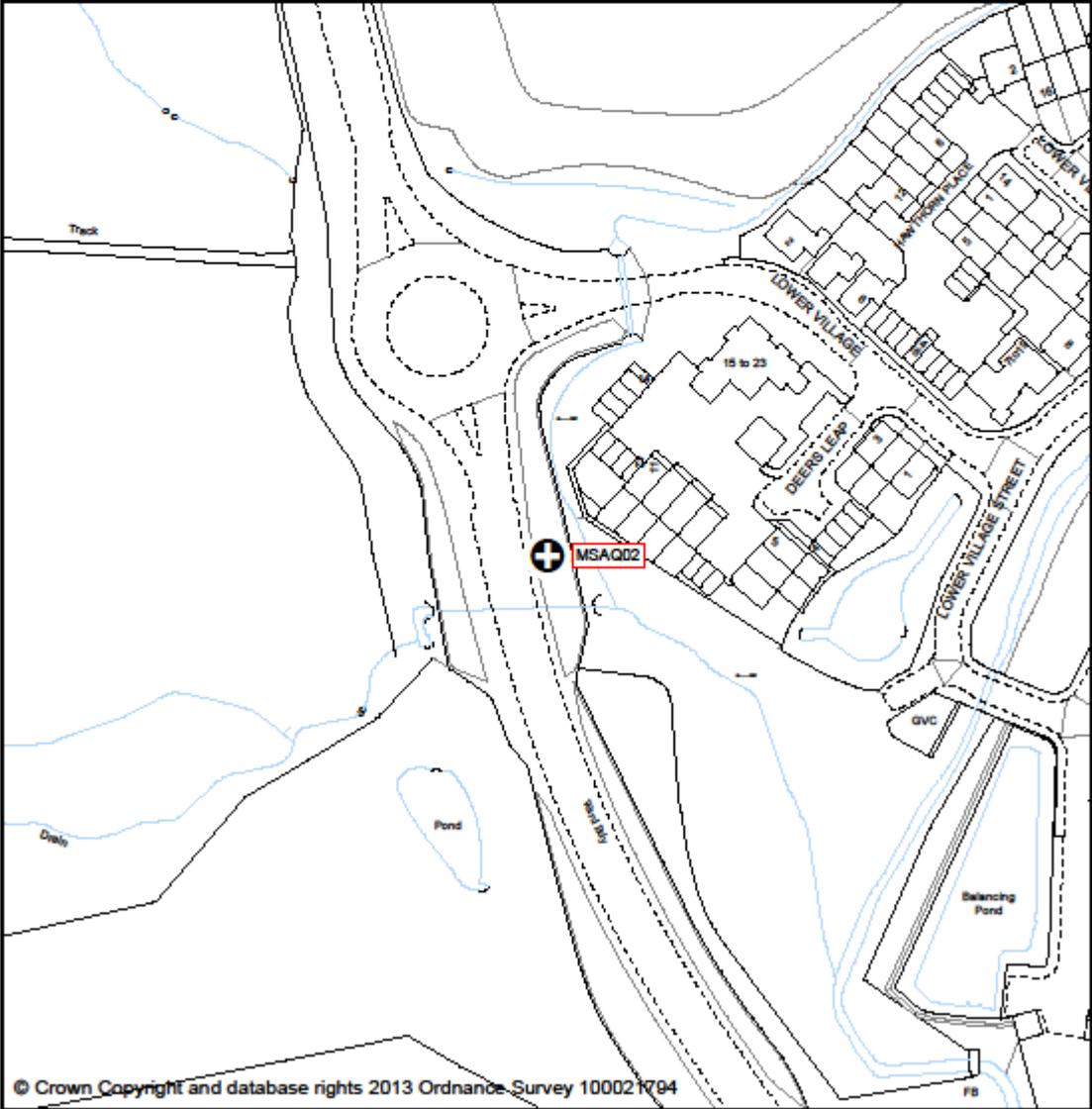
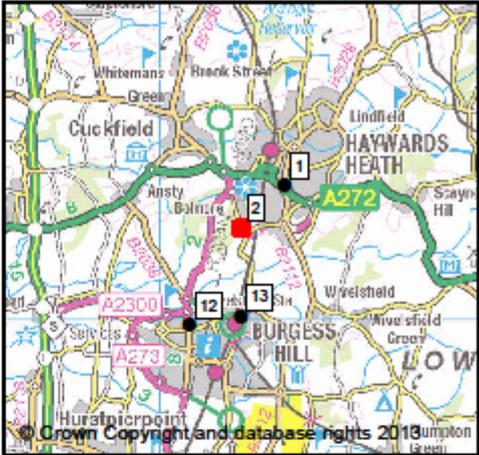
Air Quality Monitoring

June 2013

Site No. 2

Lower Village roundabout, Traunstein Way, Haywards Heath

 NO2 Monitoring Sites Scale : 1:1,250





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Air Quality Monitoring

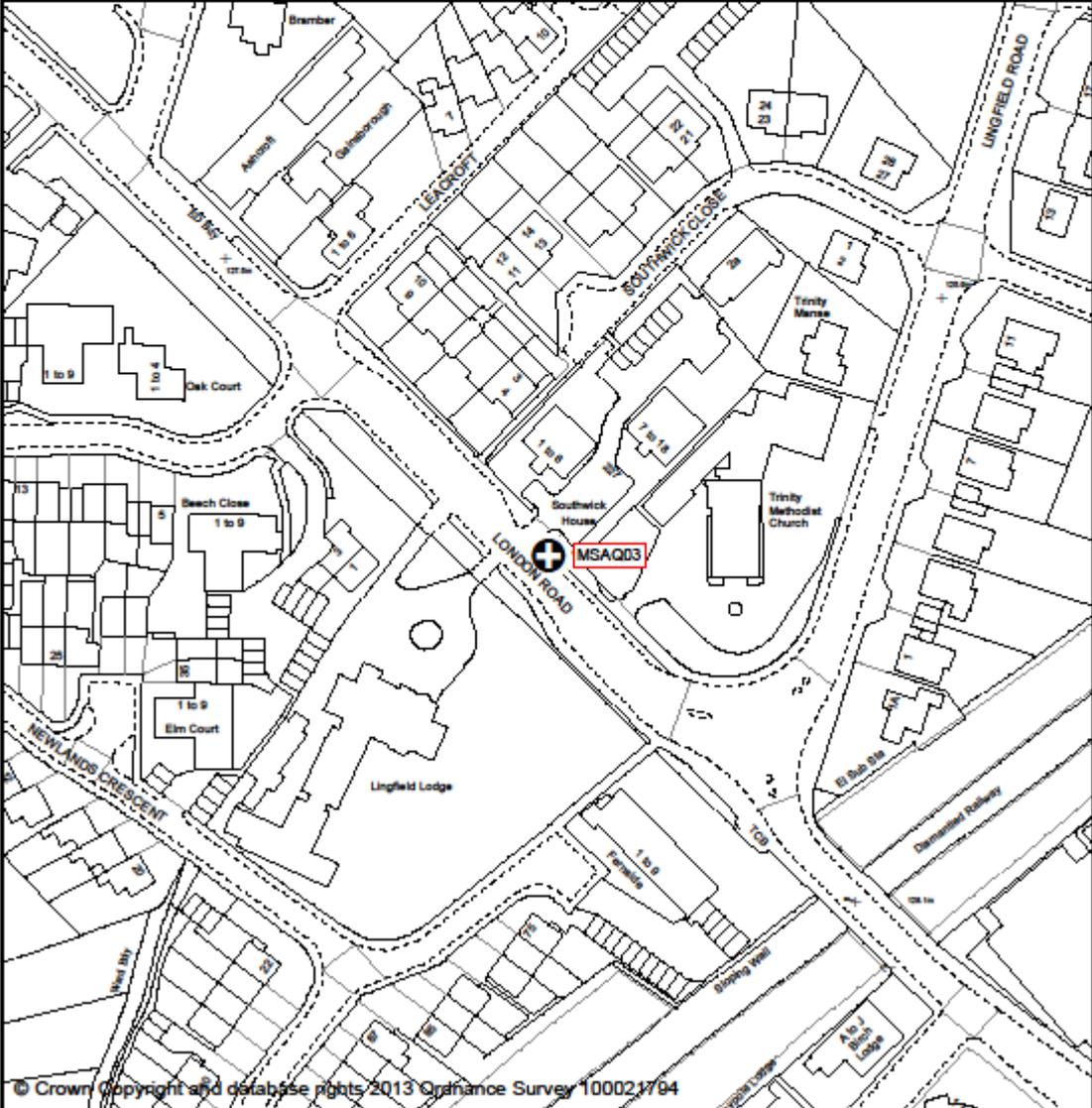
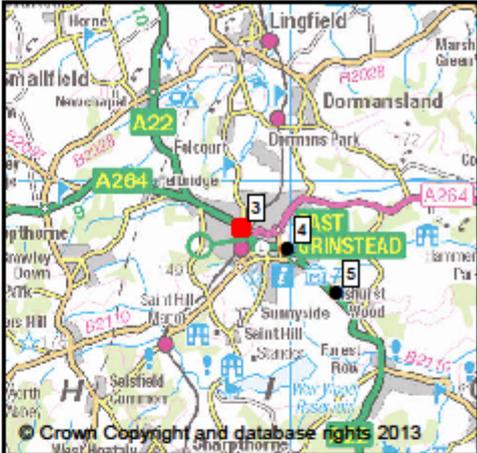
June 2013

Site No. 3

London Road, East Grinstead, adjacent Southwick House

 NO2 Monitoring Sites

Scale : 1:1,250

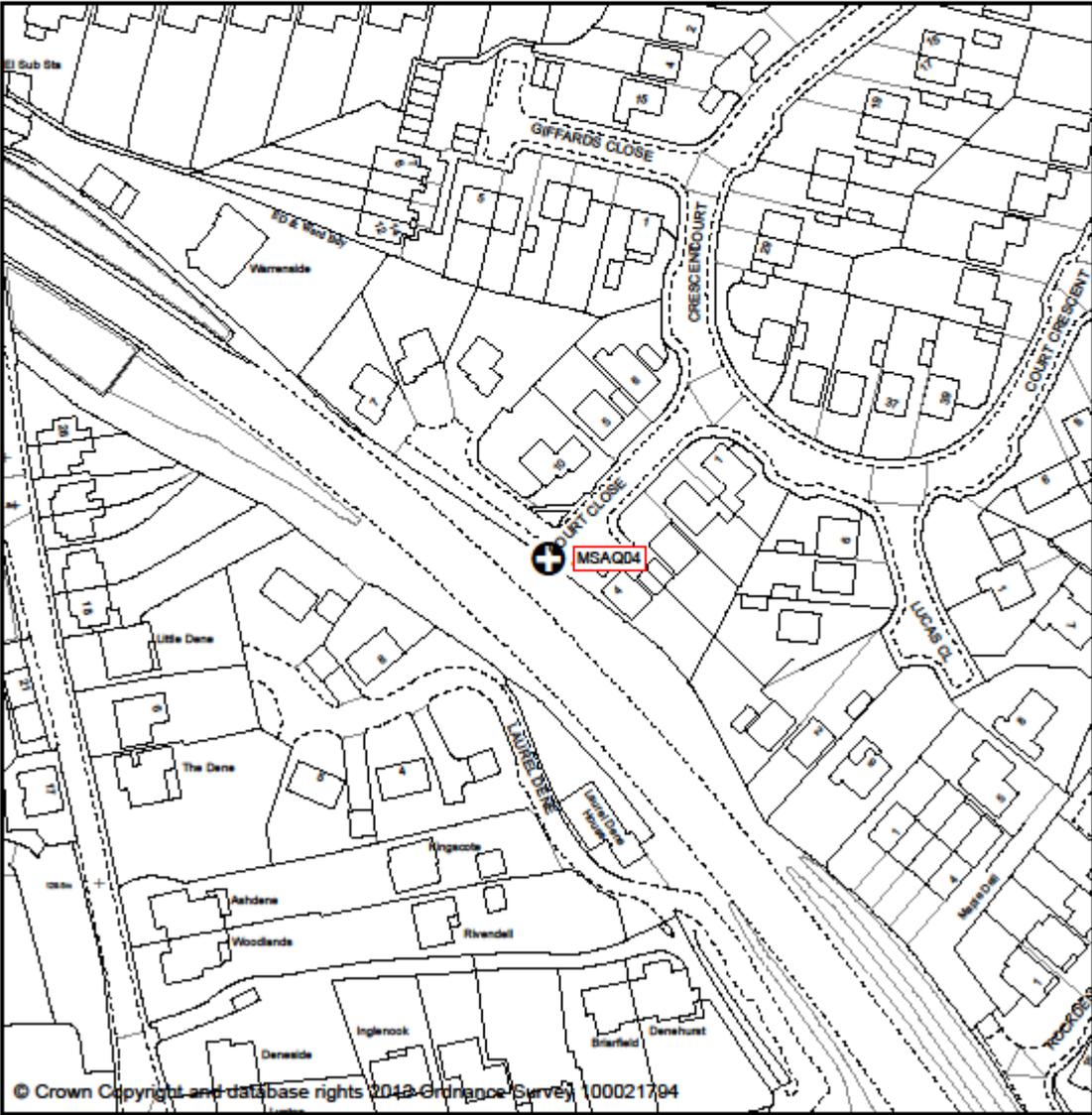
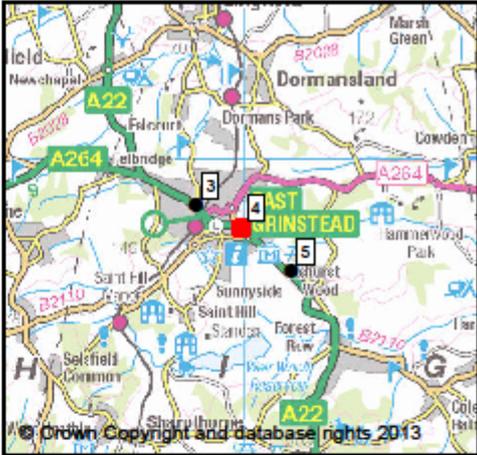




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June 2013
Site No. 4
Court Close, East Grinstead

 NO2 Monitoring Sites Scale : 1:1,250

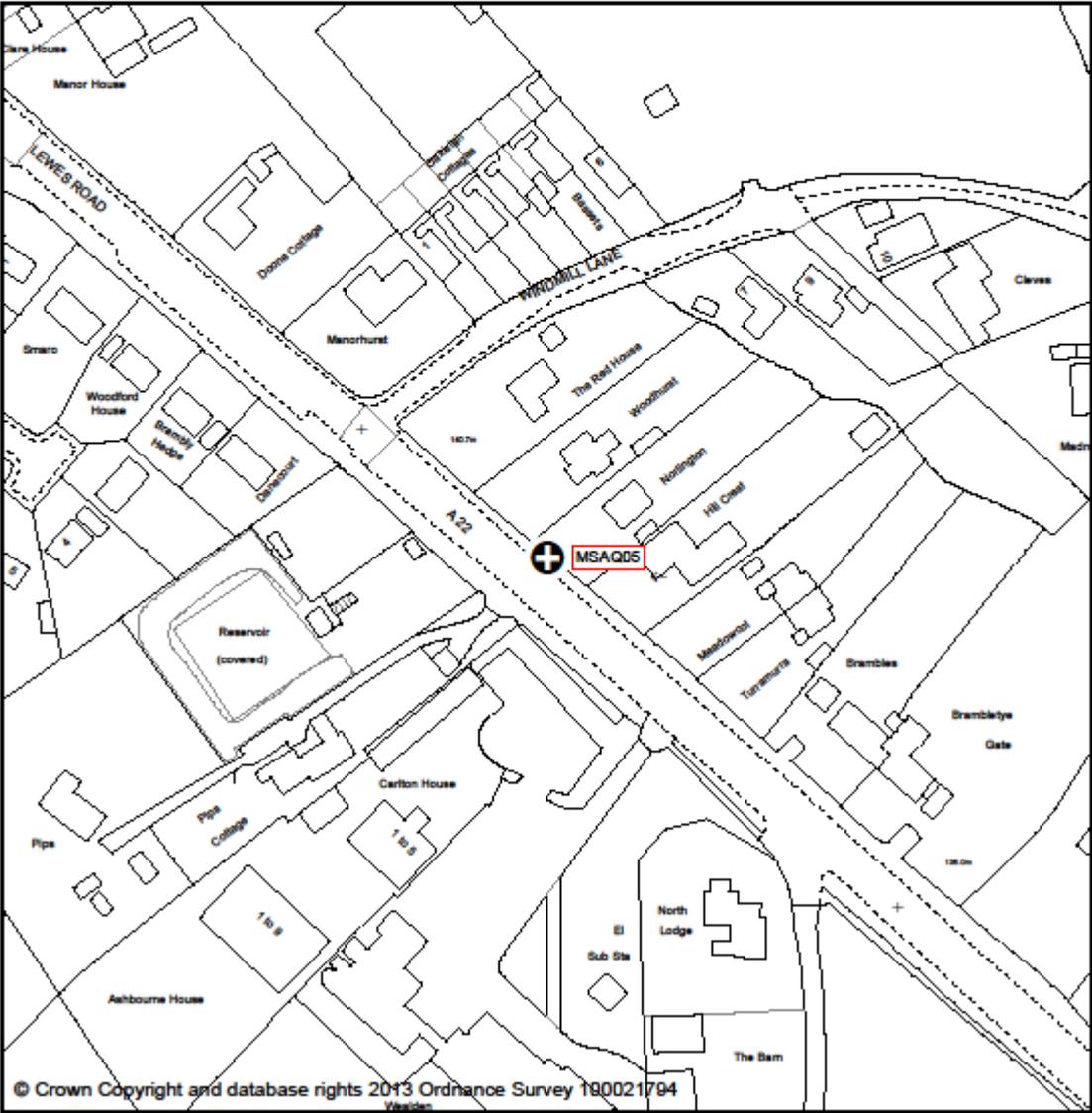




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Air Quality Monitoring
June 2013
Site No. 5
Lewes Road, East Grinstead

 NO2 Monitoring Sites Scale : 1:1,250

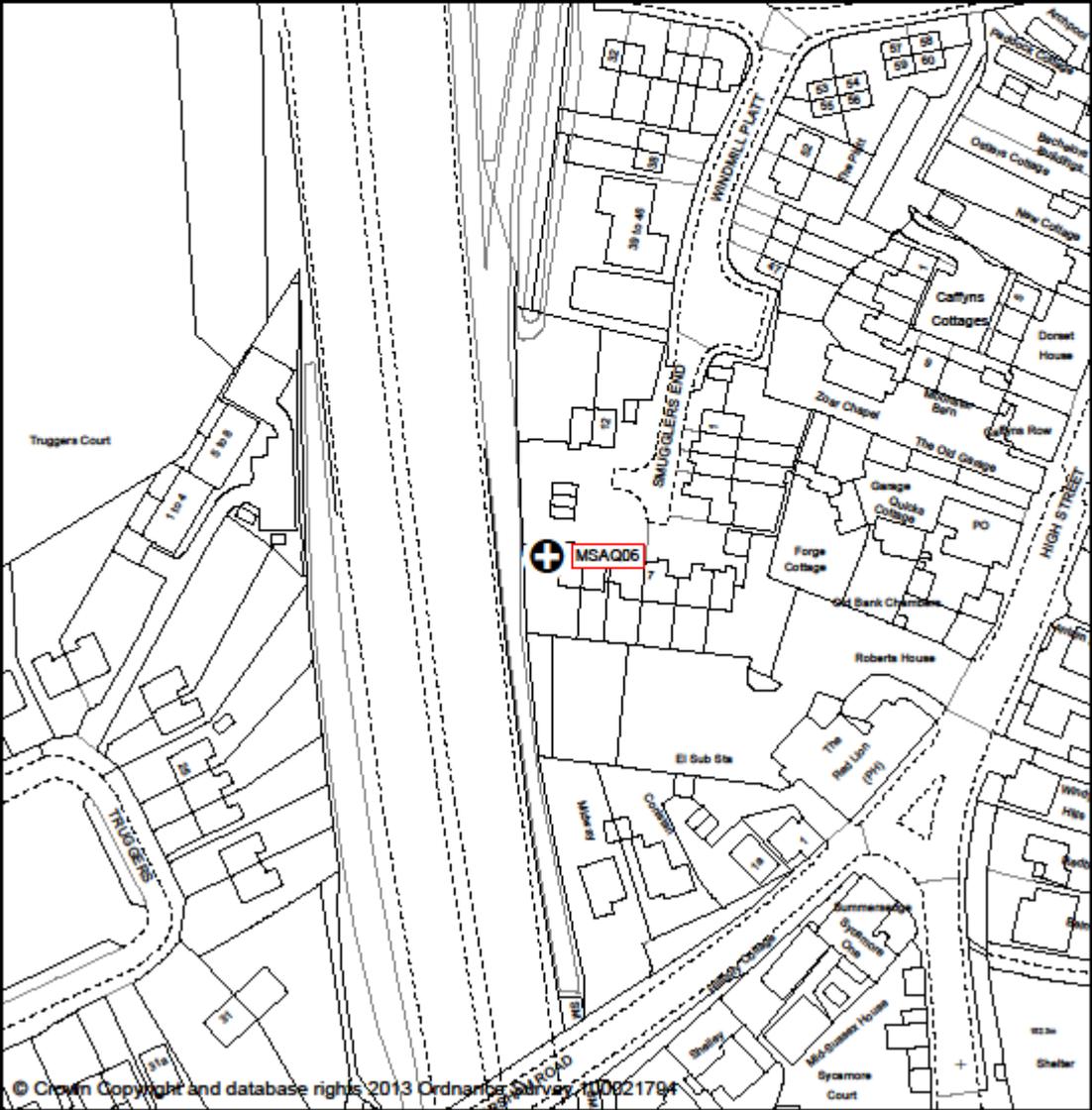
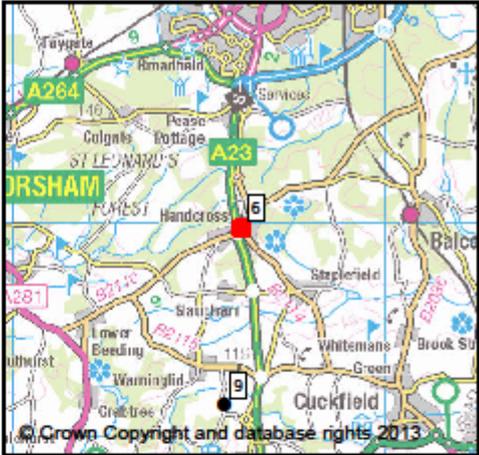




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June 2013
Site No. 6
Smugglers End, Handcross

 NO2 Monitoring Sites Scale : 1:1,250





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Air Quality Monitoring

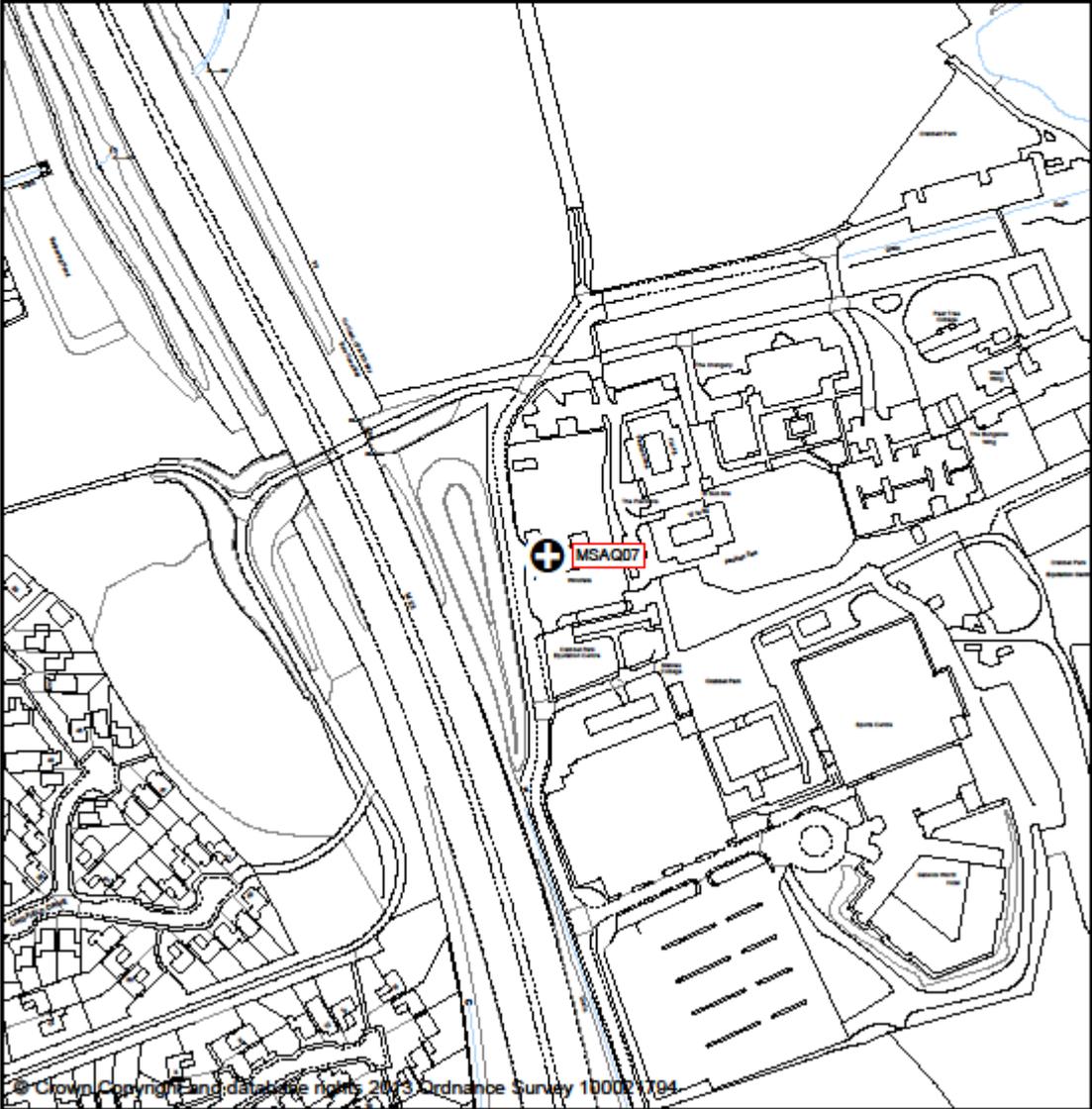
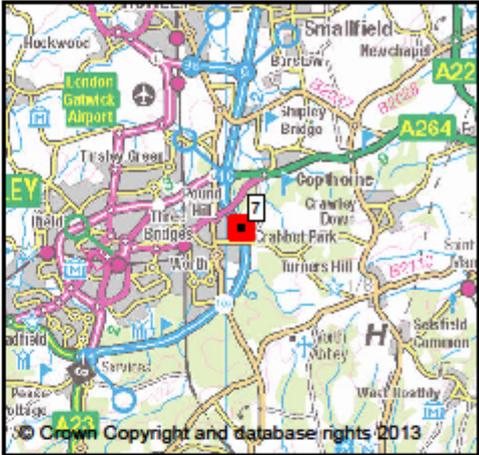
June 2013

Site No. 7

Crabbet Park, Worth

 NO2 Monitoring Sites

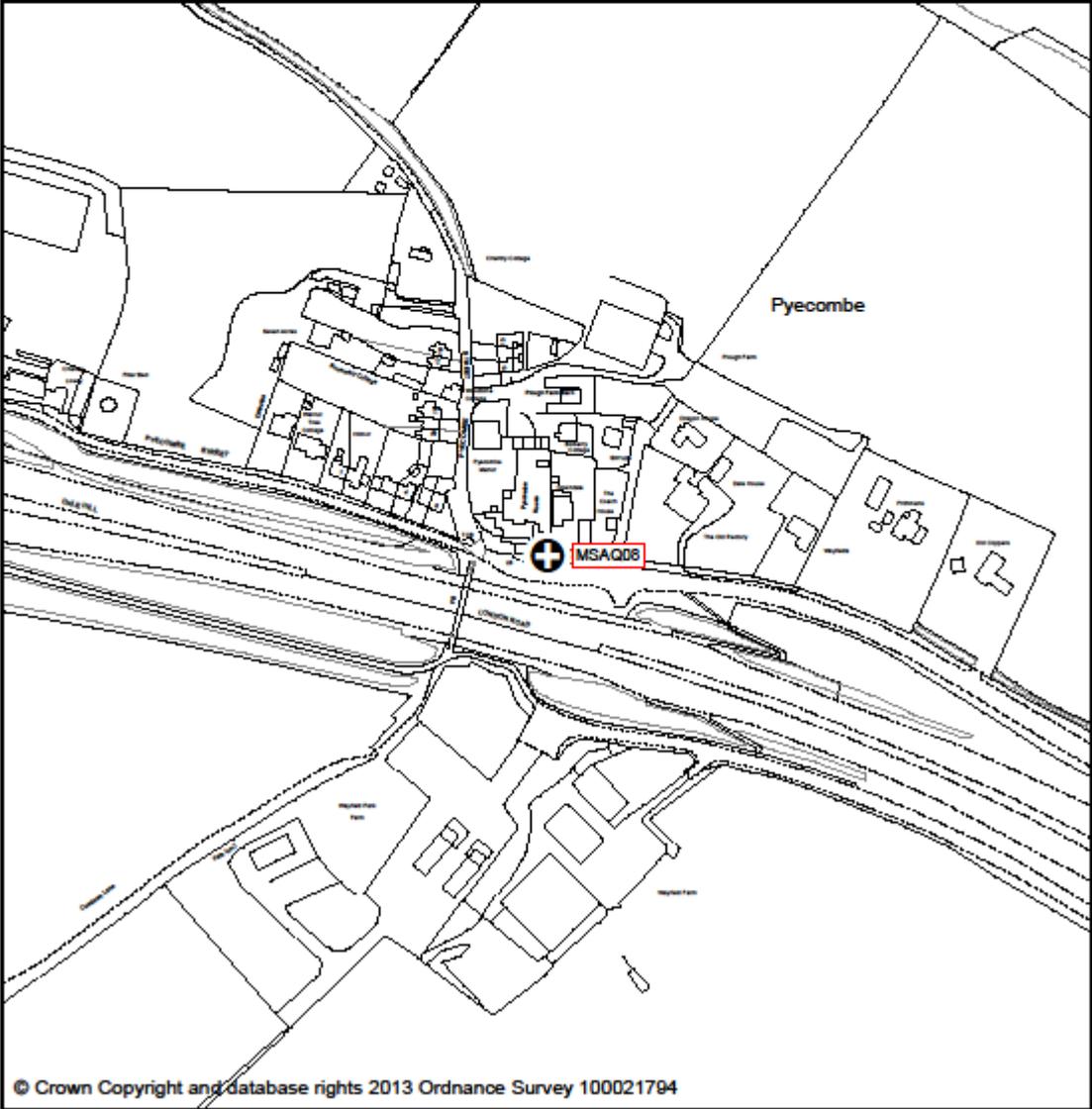
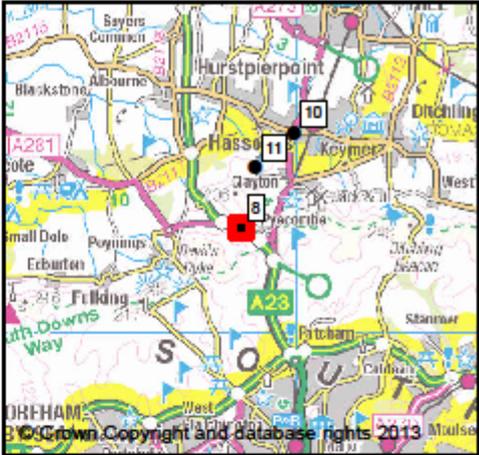
Scale : 1:2,500




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Site No. 8
Pyecombe Street, Pyecombe

 NO2 Monitoring Sites Scale : 1:2,500





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Air Quality Monitoring

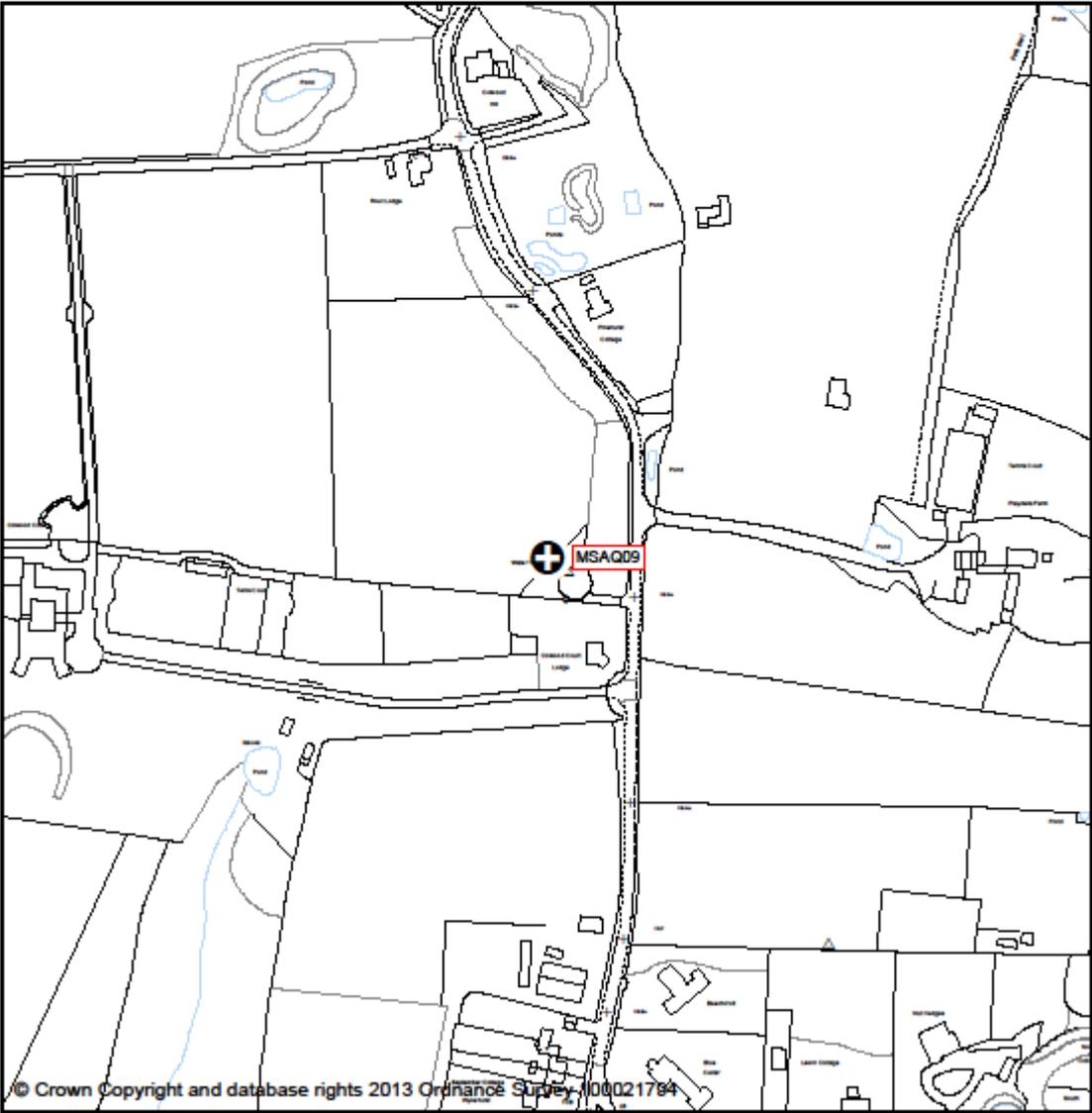
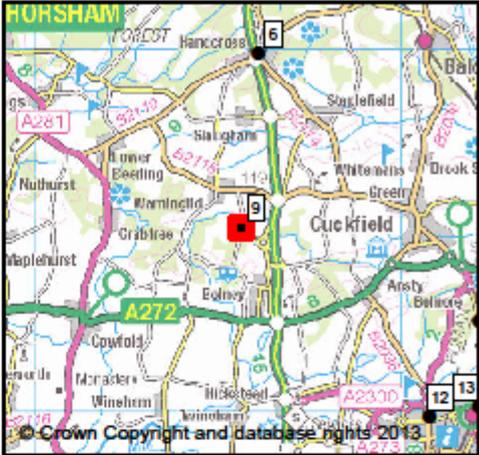
June 2013

Site No. 9

Water Tower, Colwood Lane, Warninglid

 NO2 Monitoring Sites

Scale : 1:2,500





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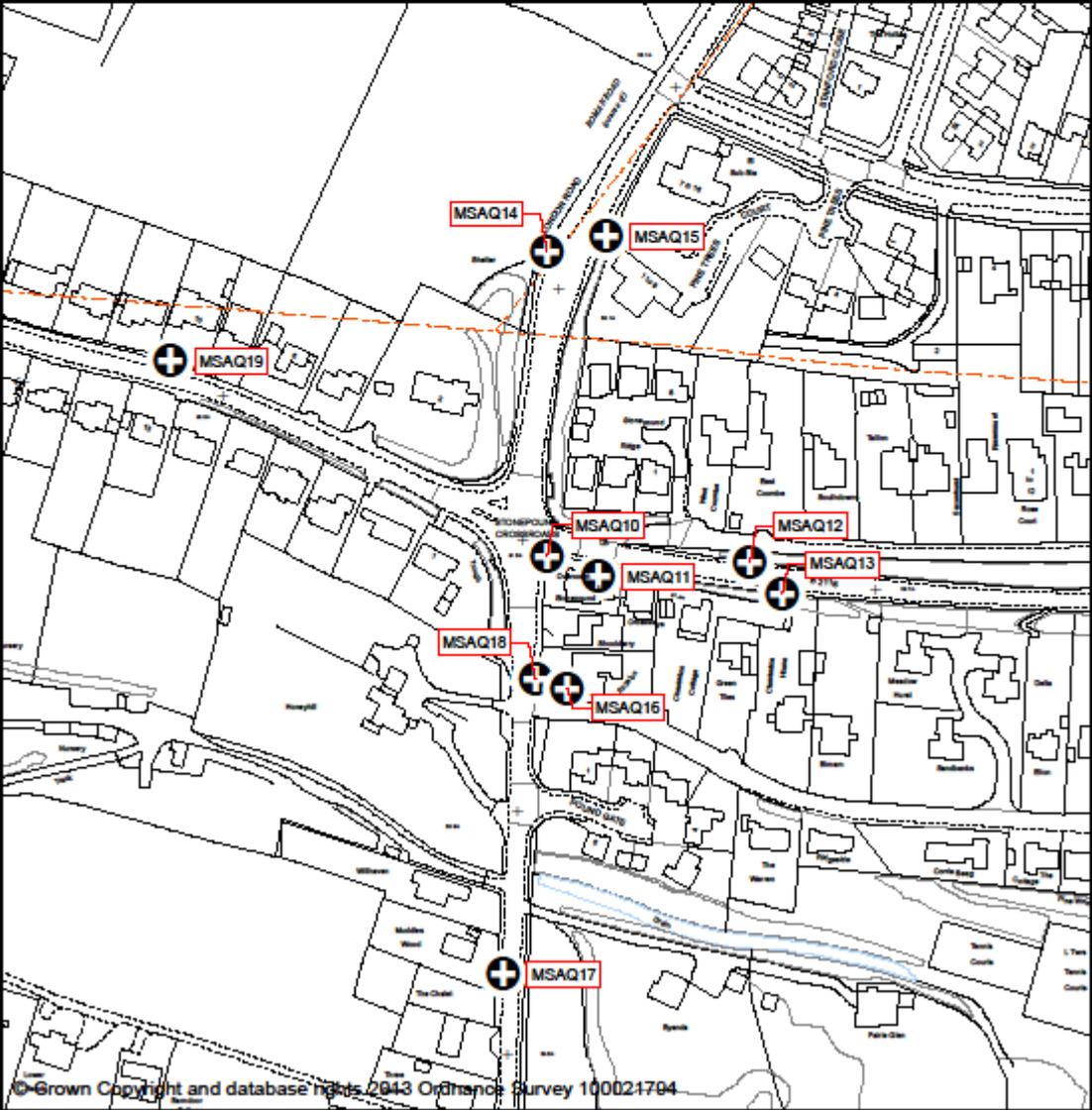
Air Quality Monitoring

June 2013

Site No. 10

Stonepound Crossroads, Keymer Road, Hassocks

 NO2 Monitoring Sites Scale : 1:2,000

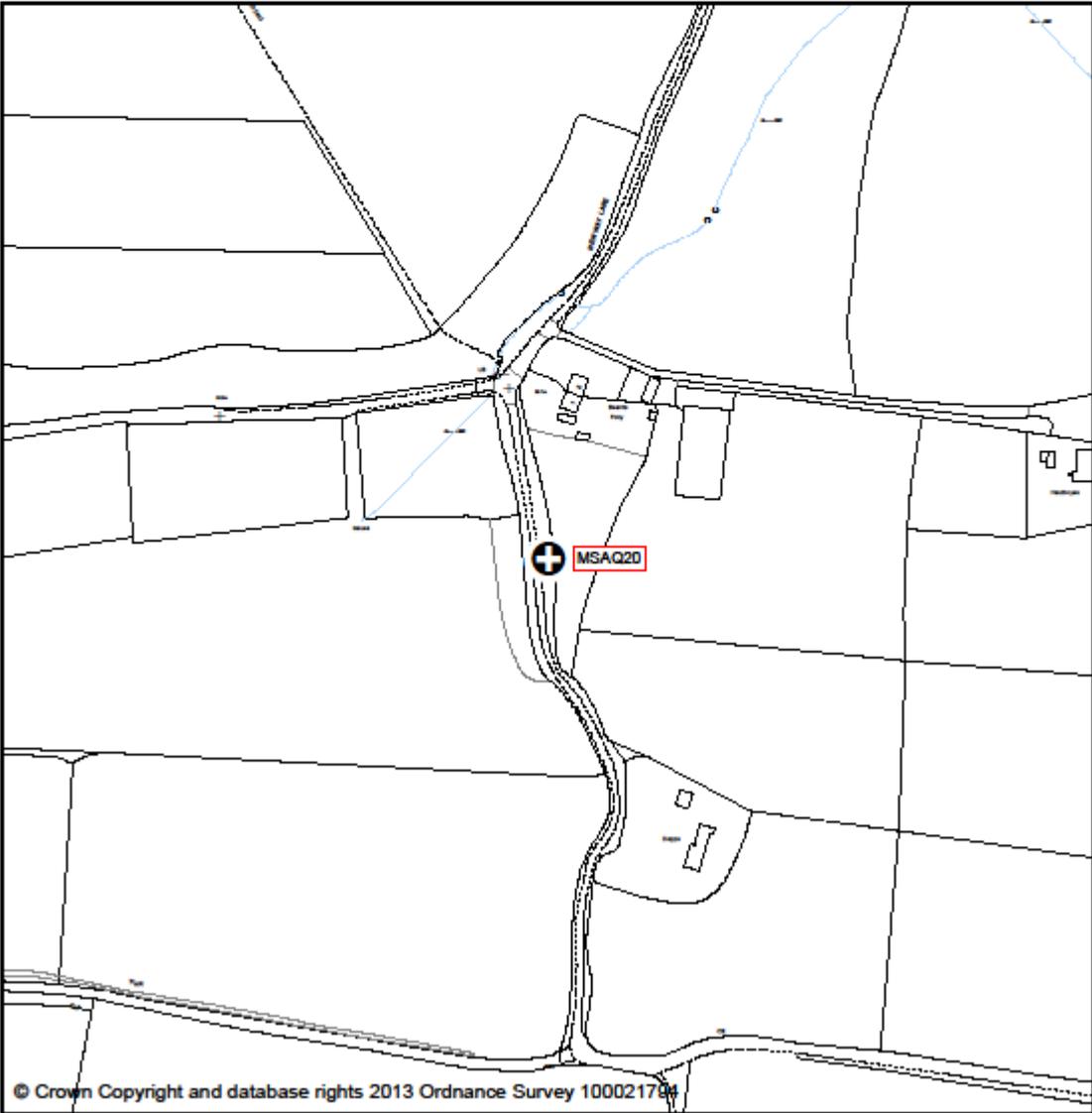




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June 2013
Site No. 11
New Way Lane, Hurstpierpoint

 NO2 Monitoring Sites Scale : 1:2,500

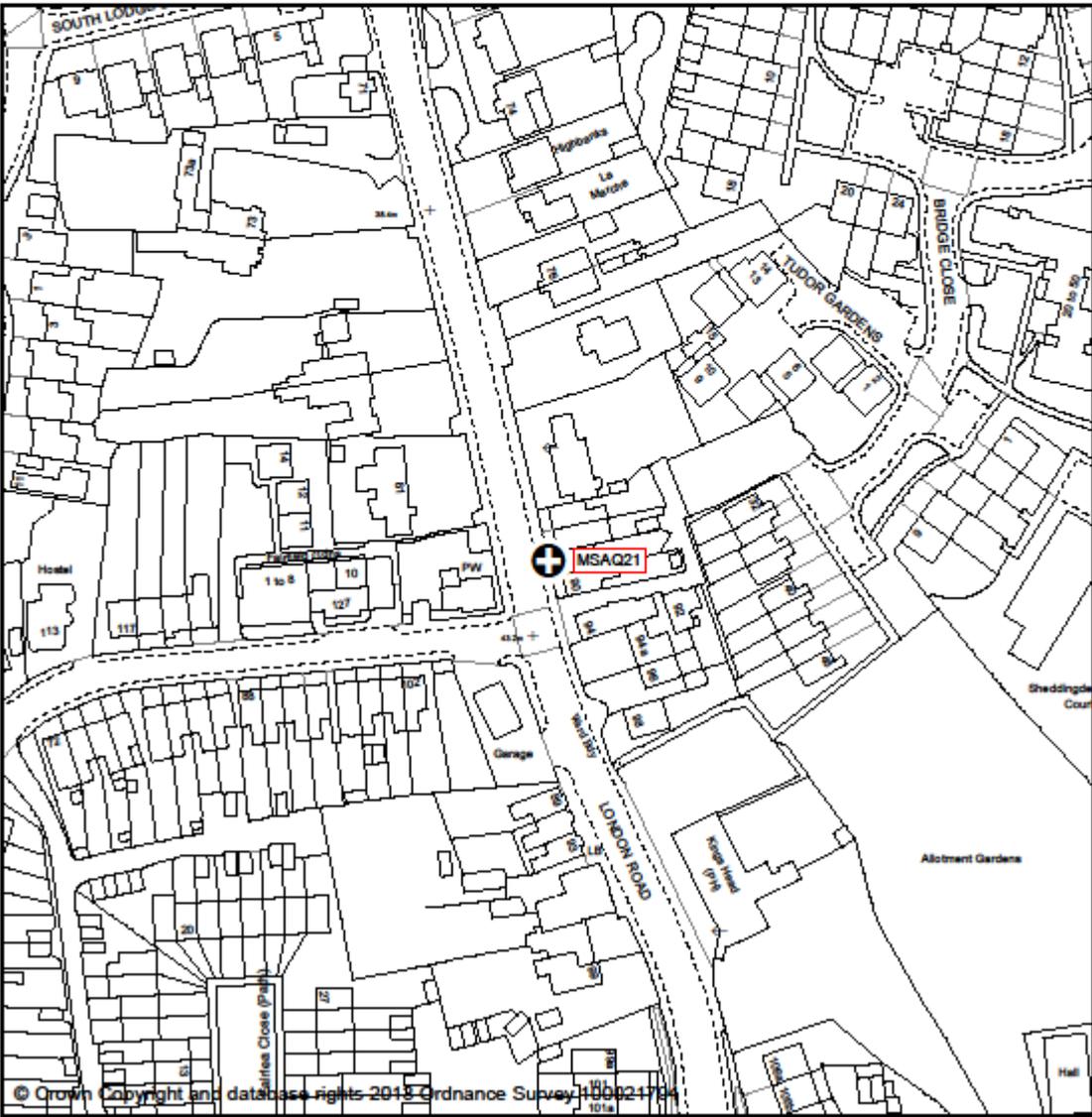




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Site No. 12
86-88 London Road, Burgess Hill

 NO2 Monitoring Sites Scale : 1:1,250





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Air Quality Monitoring
June 2013
Site No. 13
26 Leylands Road, Burgess Hill

 NO2 Monitoring Sites Scale : 1:1,250

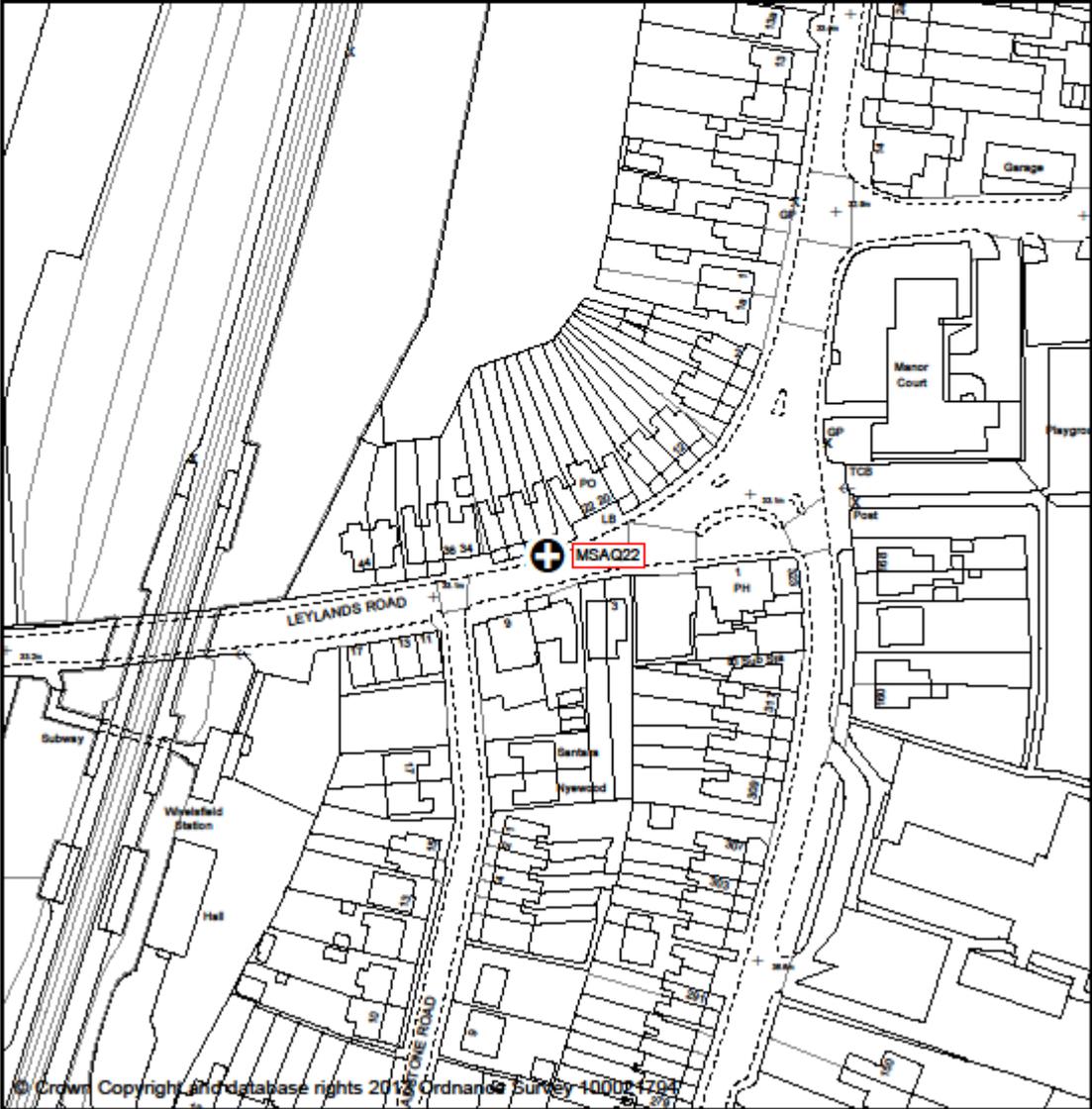
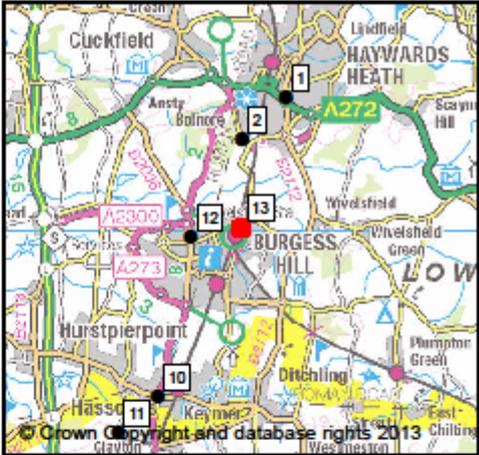


Table 2.1 Details of non-automatic monitoring sites

Site Name	Site Reference	Site Type	OS Grid Ref	Pollutants Monitored	In AQMA	Relevant Exposure	Distance to kerb of nearest road
South Road Haywards Heath	MSAQ1	Roadside	X 533342 Y 123588	NO ₂	No	Yes (0m)	2.5m
Traunstein Way Haywards Heath Relief Road	MSAQ2	Roadside	X 532184 Y 122459	NO ₂	No	No	n/a
London Road East Grinstead	MSAQ3	Kerbside	X 538690 Y 138757	NO ₂	No	No	0.5m
Court Close East Grinstead	MSAQ4	Suburban	X 539919 Y 138162	NO ₂	No	Yes (14m)	0.5m
Lewes Road East Grinstead	MSAQ5	Suburban	X 541243 Y 136998	NO ₂	No	No	1.5m
Smugglers End Handcross	MSAQ6	Roadside	X 526137 Y 129830	NO ₂	No	Yes (0m)	n/a
Crabbet Park Worth	MSAQ7	Suburban	X 530440 Y 137280	NO ₂	No	Yes (0m)	n/a
Pyecombe Street Pyecombe	MSAQ8	Roadside	X 528477 Y 112870	NO ₂	No	Yes (7.5m)	1m
Water Tower Colwood Lane Warninglid	MSAQ9	Rural	X 525658 Y 125037	NO ₂	No	No	n/a
Stonepound Keymer Road Hassocks	MSAQ10	Roadside	X 529911 Y 115489	NO ₂	Yes	Yes (6.7m)	1.5m
Over Court 1 Keymer Road Hassocks	MSAQ11	Roadside	X 529915 Y 115489	NO ₂	Yes	Yes (0m)	5.5m
Telegraph Pole Keymer Road Hassocks	MSAQ12	Kerbside	X 530038 Y 115493	NO ₂	No	N	1.1m
Lamp Post Keymer Road Hassocks	MSAQ13	Kerbside	X 530044 Y 115472	NO ₂	N	Yes (8.15m)	0.85m
Bus Stop London Road Hassocks	MSAQ14	Kerbside	X 529911 Y 115598	NO ₂	N	No	1.6m

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Traffic Light Sign London Road Hassocks	MSAQ15	Kerbside	X 529930 Y 115600	NO ₂	N	Yes (6.5m)	1.6m
Çaçade of residential premises Brighton Road Hassocks	MSAQ16	Roadside	X 529918 Y 115443	NO ₂	N	Yes (0m)	11.5m
Lamp Post Brighton Road Hassocks	MSAQ17	Kerbside	X 529894 Y 115340	NO ₂	N	Yes (10m)	1.25m
Bus Stop Brighton Road Hassocks	MSAQ18	Kerbside	X 529909 Y 115442	NO ₂	N	Yes (9m)	1.98m
Lamp Post Hurst Road Hassocks	MSAQ19	Roadside	X 529779 Y 115557	NO ₂	N	Yes (13.2m)	1.3m
New Way Lane Hassocks	MSAQ20	Rural	X 528854 Y 114517	NO ₂	N	n/a	n/a
London Road Burgess Hill	MSAQ21	Roadside	X 530794 Y 119823	NO ₂	N	Yes (2.5m)	1.9m
Leylands Road Burgess Hill	MSAQ22	Roadside	X 532160 Y 120071	NO ₂	N	Yes (3m)	1.5m

2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide

Mid Sussex District Council operate a number of diffusion tube sampling sites.

The bias corrected results for January to December 2012 are in Table 2.2. All data have been ratified, see Appendix A.

The 2012 annual means were below the NO₂ objective at 17 of the 22 monitoring sites.

The objective was exceeded at the following locations:

1. Stonepound, Keymer Road, Hassocks
2. Overcourt, 1 Keymer Road, Hassocks
3. Lamp post, Keymer Road, Hassocks
4. Bus Stop, London Road, Hassocks
5. London Road, East Grinstead

The first three are sites with relevant exposure (i.e. residential premises within 15m of a monitoring site).

Stonepound and Overcourt are within the Air Quality Management Area (AQMA) declared in March 2012.

Diffusion Tube Monitoring Data

Table 2.2 Results of nitrogen dioxide diffusion tube monitoring in 2012

Site ID	Location	Site Type	Within AQMA?	Triplicate or Collocated Tube	Data Capture 2012	Data with less than 9 months has been annualised	Annual mean concentration (Bias Adjustment factor = 0.97)	Notes
							2012 ($\mu\text{g}/\text{m}^3$)	
MSAQ1	South Road Haywards Heath	Roadside	No		12 months		24.4	Relevant exposure (façade)
MSAQ2	Traunstein Way (Haywards Heath Relief Road) Haywards Heath	Roadside	No		11 months		17.5	Not relevant exposure
MSAQ3	London Road East Grinstead	Kerbside	No		11 months		41.8	Not relevant exposure
MSAQ4	Court Close East Grinstead	Suburban	No		10 months		23.4	Relevant exposure Estimated Concentration at nearest receptor $20.3\mu\text{g}/\text{m}^3$ ⁽²⁾
MSAQ5	Lewes Road East Grinstead	Suburban	No		12 months		37.6	Not relevant exposure
MSAQ6	Smugglers End Handcross	Roadside	No		12 months		31.6	Relevant exposure (façade)
MSAQ7	Crabbet Park Worth	Suburban	No		12 months		30.1	Relevant exposure (façade)
MSAQ8	Pyecombe Street Pyecombe	Roadside	No		11 months		31.4	Relevant exposure Estimated Concentration at nearest receptor $24.7\mu\text{g}/\text{m}^3$ ⁽²⁾

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MSAQ9	Water Tower Colwood Lane Warninglid	Rural background	No		12 months		9.2	Not relevant exposure
MSAQ10	Stonepound Keymer Road Hassocks ⁽²⁾	Roadside	Yes	Trilocated	12 months		47.4	Relevant exposure Estimated Concentration at nearest receptor 37.4µg/m ³⁽²⁾
MSAQ11	Overcourt Keymer Road Hassocks ⁽²⁾	Facade	Yes	Trilocated	12 months		47.0	Relevant exposure (façade)
MSAQ12	Telegraph Pole Keymer Road Hassocks	Kerbside	No		11 months		40.0	Not relevant exposure
MSAQ13	Lamp Post Keymer Road Hassocks	Kerbside	No		12 months		43.4	Relevant exposure Estimated Concentration at nearest receptor 30.2µg/m ³⁽²⁾
MSAQ14	Bus Stop London Road Hassocks	Kerbside	No		12 months		41.9	Not relevant exposure
MSAQ15	Traffic Light Sign London Road Hassocks	Kerbside	No		12 months		38.4	Relevant exposure Estimated Concentration at nearest receptor 30.3µg/m ³⁽²⁾
MSAQ16	Façade of residential premises Brighton Road Hassocks	Facade	No		10 months		22.8	Relevant exposure (façade)
MSAQ17	Lamp Post Brighton Road Hassocks	Kerbside	No		12 months		25.4	Relevant exposure Estimated Concentration at nearest receptor 19.7µg/m ³⁽²⁾

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MSAQ18	Bus Stop Brighton Road Hassocks	Kerbside	No		12 months		34.9	Relevant exposure Estimated Concentration at nearest receptor 26.9µg/m ³ ⁽²⁾
MSAQ19	Lamp Post Hurst Road Hassocks	Kerbside	No		11 months		20.7	Relevant exposure Estimated Concentration at nearest receptor 16.6µg/m ³ ⁽²⁾
MSAQ20	New Way Lane Hurstpierpoint	Rural background	No		11 months		9.4	Not relevant exposure
MSAQ21	London Road Burgess Hill	Kerbside	No		9 months		31.2	Relevant exposure
MSAQ22	Leylands Road Burgess Hill	Kerbside	No		10 months		27.7	Relevant exposure

⁽¹⁾ Bias adjustment factor taken from the spreadsheet available at the defra website (v07.13) <http://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html>

⁽²⁾ Concentration at nearest receptor calculated using the spreadsheet available at <http://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html> and the background map data available at <http://laqm.defra.gov.uk/maps/maps2010.html>

Table 2.3 Results of nitrogen dioxide monitoring using diffusion tubes 2007 to 2012

Site ID	Location	Site Type	Within AQMA	Annual mean concentrations ($\mu\text{g}/\text{m}^3$) Adjusted for bias					
				2007 (0.77 bias)	2008 (0.87 bias)	2009 (0.84 bias)	2010 (0.85 bias)	2011 (0.83 bias)	2012 (0.97 bias)
MSAQ1	South Road Haywards Heath	Roadside	No	24.7	28.1	26.7	27.0	24.2	24.4
MSAQ2	Partly constructed Haywards Heath Relief Road	Roadside	No	14.5	14.7	15.0	16.4	13.7	17.5
MSAQ3	London Road East Grinstead	Kerbside	No	40.3	44.5	44.5	43.7	39.1	41.8
MSAQ4	Court Close East Grinstead	Suburban	No	22.5	23.1	22.7	24.0	20.1	23.4
MSAQ5	Lewes Road East Grinstead	Suburban	No	37.2	40.5	40.7	39.8	35.6	37.6
MSAQ6	Smugglers End Handcross	Roadside	No	28.9	32.3	32.1	33.2	28.2	31.6
MSAQ7	Crabbet Park Worth	Suburban	No	29.2	32.5	30.1	31.6	29.1	30.1
MSAQ8	Pyecombe Street Pyecombe	Roadside	No	27.6	33.5	33.9	32.8	32.0	31.4
MSAQ9	Water Tower Colwood Lane Warninglid	Rural background	No	11.2	11.3	11.7	13.0	10.2	9.2
MSAQ10	Overcourt 1 Keymer Road Hassocks	Roadside	Yes	40.9	48.7	50.7	55.2	49.0	47.4
MSAQ11	Stonepound 2 Keymer Road Hassocks	Facade	Yes	44.1	48.1	50.4	50.1	47.0	47.0
MSAQ12	Bus Stop Keymer Road Hassocks	Kerbside	No	N/A	46.4 ⁽¹⁾	45.5 ⁽¹⁾	50.4	33.0 ⁽¹⁾	40.0
MSAQ13	Lamp Post Keymer Road Hassocks	Kerbside	No	N/A	43.2 ⁽¹⁾	44.5	45.4	45.9	43.4

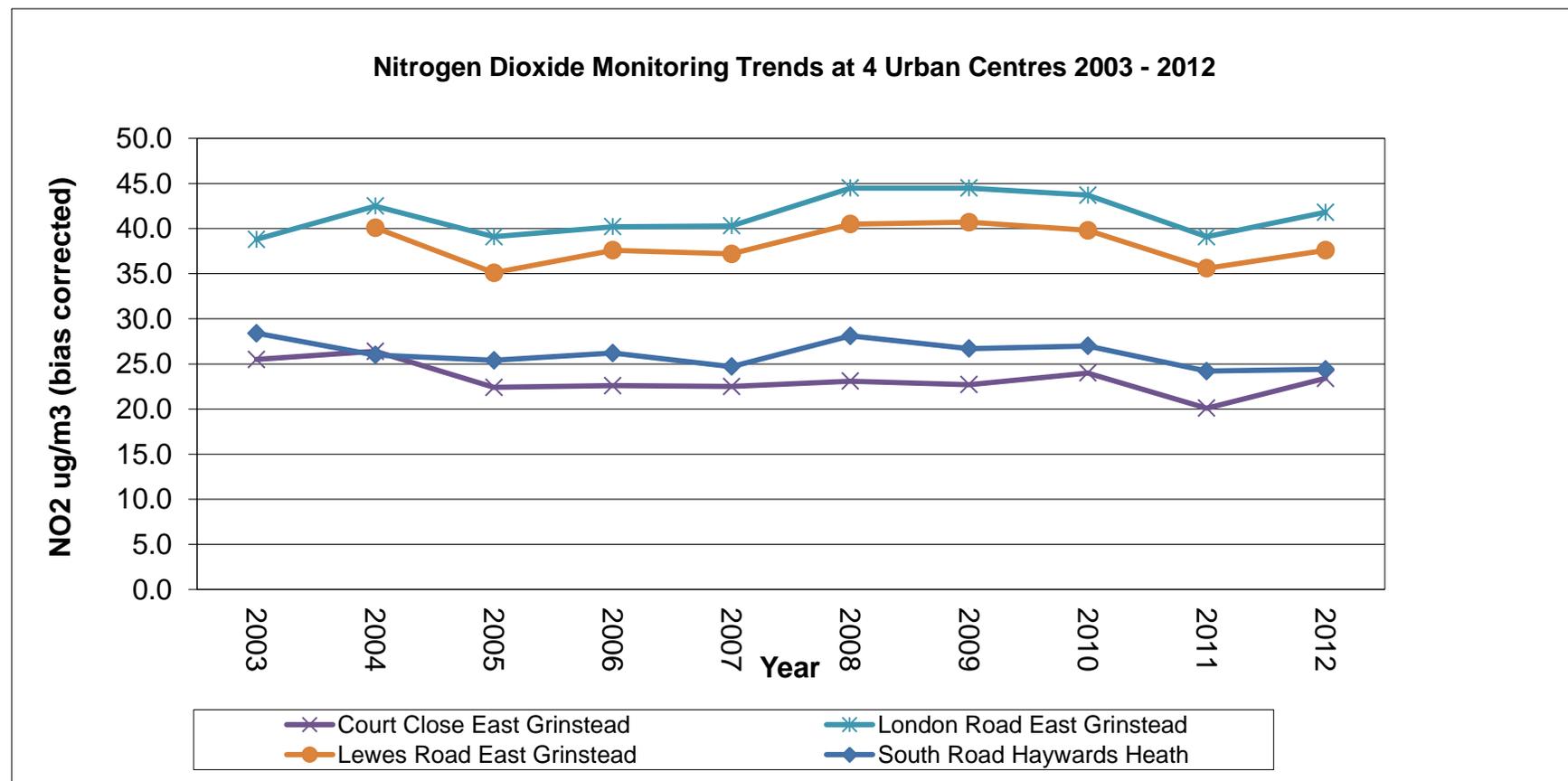
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MSAQ14	Bus Stop London Road Hassocks	Kerbside	No	N/A	42.4 ⁽¹⁾	43.8	41.3	39.7	41.9
MSAQ15	Traffic Light Sign London Road Hassocks	Kerbside	No	N/A	39.3 ⁽¹⁾	41.3	42.8	38.5	38.4
MSAQ16	Façade of residential premises Brighton Road Hassocks	Facade	No	N/A	26.5 ⁽¹⁾	24.5	27.2	23.7	22.8
MSAQ17	Lamp Post Brighton Road Hassocks	Kerbside	No	N/A	25.0 ⁽¹⁾	25.6	28.0	24.8	25.4
MSAQ18	Bus Stop Brighton Road Hassocks	Kerbside	No	N/A	32.1 ⁽¹⁾	35.3	38.5	35.7	34.9
MSAQ19	Lamp Post Hurst Road Hassocks	Kerbside	No	N/A	22.3 ⁽¹⁾	23.2	23.9	20.9	20.7
MSAQ20	New Way Lane Hurstpierpoint	Rural background	No	N/A	N/A	N/A	N/A	13.5 ⁽¹⁾	9.4
MSAQ21	London Road Burgess Hill	Kerbside	No	N/A	N/A	N/A	N/A	N/A	31.2
MSAQ22	Leylands Road Burgess Hill	Kerbside	No	N/A	N/A	N/A	N/A	N/A	27.7

Trends in annual mean nitrogen dioxide concentrations measured at diffusion tube monitoring sites

Graph 2.1

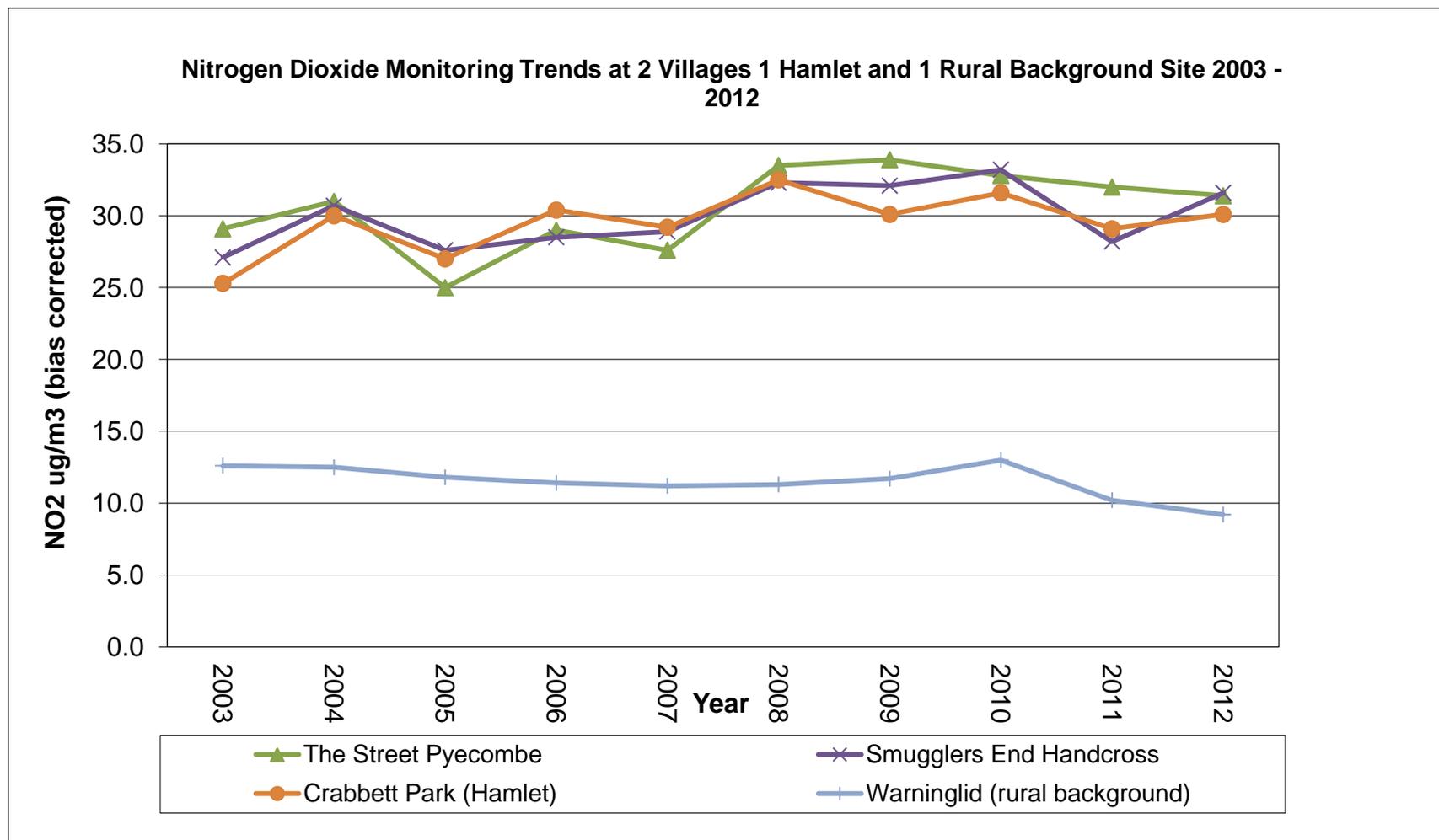
Annual mean concentrations (bias corrected) 2003 to 2012 of nitrogen dioxide diffusion tube measurements at 4 urban centre sites



From 2005 to 2009 there has been a gradual increase in the monitored levels of nitrogen dioxide at 3 of the 4 urban centres. The 4th, Court Close East Grinstead, has remained at a relatively consistent level. In 2010 the monitored levels declined slightly at 2 sites, London Road and Lewes Road East Grinstead and in 2011 the monitored levels at 3 of the sites were lower than in previous years. In 2012 the levels increased though they were still lower than in 2010.

Graph 2.2

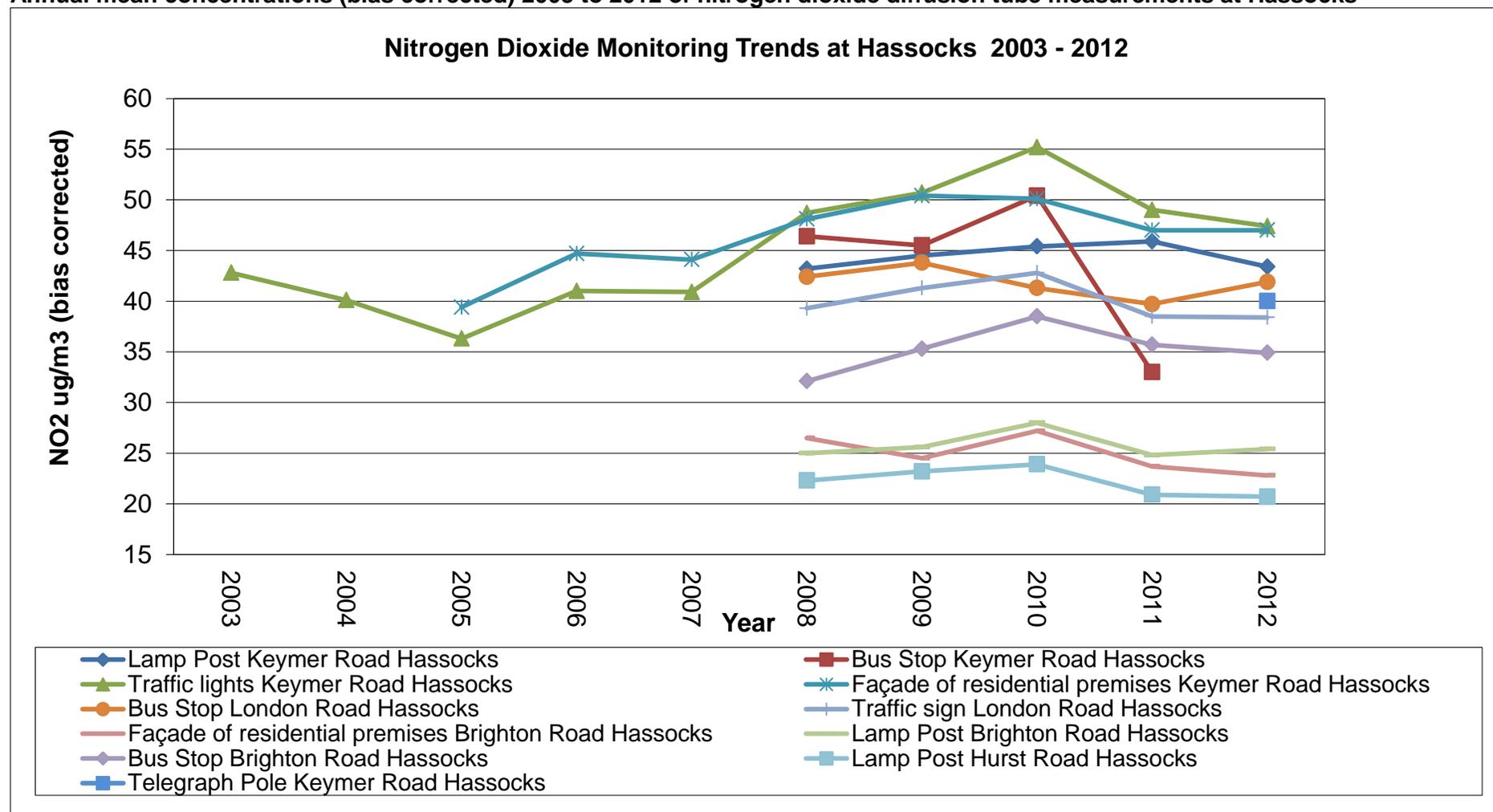
Annual mean concentrations (bias corrected) 2003 to 2012 of nitrogen dioxide diffusion tube measurements at 2 villages, 1 hamlet and 1 rural background site



From 2005 to 2009 there has been a gradual increase in levels nitrogen dioxide at 3 of the sites. The levels recorded in 2011 have reduced slightly from 2010. From 2008 to 2012 there has been a steady decline at the Pyecombe site. The rural background declined in 2011 and 2012.

Graph 2.3

Annual mean concentrations (bias corrected) 2003 to 2012 of nitrogen dioxide diffusion tube measurements at Hassocks



From 2003 to 2010 the levels recorded at the traffic lights and at the façade in Keymer Road have increased year on year, reducing slightly in 2011. All sites showed an overall increase in levels from 2008 to 2010. 4 of the sites remain above the objective in 2012. The Bus stop site at Keymer Road ceased to be used due to consistent vandalism. An alternative site (telegraph pole) was set up slightly further east.

2.2.2 Particulate Matter (PM₁₀)

Mid Sussex do not monitor for PM₁₀.

2.2.3 Sulphur Dioxide (SO₂)

Mid Sussex do not monitor for sulphur dioxide.

2.2.4 Benzene

Mid Sussex do not monitor for Benzene.

Monitoring of benzene across the district was undertaken using diffusion tubes between 1997 and 2005.

The results considered in the Updating & Screening Assessment 2003 and the Progress Reports for 2004 and 2005 indicated the benzene objective would not be exceeded in the future.

2.2.5 Summary of Compliance with AQS Objectives

The results from monitoring for nitrogen dioxide across the Mid Sussex District show, except at Hassocks, levels recorded are below the objective at all relevant locations.

3 New Local Developments

Mid Sussex confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Mid Sussex confirms that all the following have been considered:

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

4 Planning Applications

Proposed planning applications that may need to be considered for Air Quality in the near future are a development of housing to the North West of Burgess Hill, adjacent to the A2300 and a mixed development of housing and industrial units on land West of Copthorne, adjacent to the M23.

It should also be noted that an application for a second runway at Gatwick Airport has recently been submitted to the Government.

5 Implementation of Action Plans

The draft Action Plan is out for consultation with Statutory consultees and the public. The consultation period ends in August 2013 when any feedback will be considered. The Action Plan will be submitted to Cabinet in September before submission to defra.

6 Conclusions and Proposed Actions

6.1 Conclusions from New Monitoring Data

The 2012 annual means were below the nitrogen dioxide (NO₂) objective at 17 monitoring sites.

The objective was exceeded at 5 locations, 3 of which have relevant exposure i.e. residential premises within 15 metres of a monitoring site.

Two of these sites are within the Air Quality Management Area (AQMA) declared in March 2012.

6.2 Proposed Actions

The draft Action Plan is out for consultation with Statutory consultees and public consultation is currently underway.

7 References

DEFRA (2002) The Air Quality (England) (Amendment) Regulations. HMSO.

DEFRA (2003) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum. HMSO.

DETR (2000) The Air Quality (England) Regulations. HMSO.

DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. HMSO.

DEFRA (2009) Local Air Quality Management Policy Guidance. LAQM.PG(09)

DEFRA (2009) Local Air Quality Management Technical Guidance. LAQM.TG(09)

The Environment Act (1995)

The Environmental Protection Act (1990)

Appendices

Appendix A: QA:QC Data

Diffusion Tube Bias Adjustment Factors

The tubes are supplied by Gradko laboratories and are prepared using 20% TEA in water.

The bias adjustment factor used to correct the diffusion tube monitoring results is 0.97 taken from the database of diffusion tube bias factors spreadsheet (v07.13) available at <http://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html>.

QA/QC of Diffusion Tube Monitoring

Results for the nitrogen dioxide diffusion collocation studies available at <http://laqm.defra.gov.uk/diffusion-tubes/precision.html> show Gradko laboratory had good precision.

The laboratory scored 100% in the Workplace Analysis Scheme for Proficiency (WASP) for samples undertaken from January to December 2012.

Appendix B:
Nitrogen dioxide diffusion tube monitoring
Monthly results January to December 2012

Site ID	Location	Monthly Average levels of NO ₂ (µg/m ³)											
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
MSAQ1	South Road Haywards Heath	23.6	34.5	35.5	23.2	22.7	19.0	20.6	24.2	25.2	20.7	24.2	28.6
MSAQ2	Traunstein Way (Haywards Heath Relief Road)	20.3	22.6	19.8	13.4	10.6	7.8	43.3	Lost	11.3	14.6	15.8	18.7
MSAQ3	London Road East Grinstead	45.3	53.0	49.7	Lost	31.3	31.8	34.9	42.2	49.5	39.6	50.7	45.9
MSAQ4	Court Close East Grinstead	28.8	33.4	31.3	19.5	Lost	13.2	Lost	17.9	22.7	23.2	25.3	25.8
MSAQ5	Lewes Road East Grinstead	45.4	50.0	49.5	36.7	32.5	28.4	24.4	32.1	42.0	37.8	46.8	39.5
MSAQ6	Smugglers End Handcross	36.2	42.0	36.4	32.6	25.1	24.3	26.1	31.5	37.9	29.6	34.3	34.8
MSAQ7	Crabbet Park Worth	35.0	35.8	38.3	30.7	23.3	21.3	24.4	28.7	33.1	31.3	36.4	34.7
MSAQ8	Pyecombe Street Pyecombe	37.8	Lost	37.2	27.4	24.4	24.9	28.0	33.1	31.5	35.9	39.5	36.5
MSAQ9	Water Tower Colwood Lane Warninglid	13.7	4.5	16.9	8.1	7.8	6.1	6.6	7.7	7.3	11.1	11.7	12.7
MSAQ10	Stonepound Keymer Road Hassocks	54.6	47.2	57.2	47.5	58.9	41.3	36.7	45.2	51.6	51.3	50.0	44.5
MSAQ11	Overcourt Keymer Road Hassocks	58.7	47.7	48.7	46.0	59.4	40.3	41.1	44.6	50.2	48.2	48.4	48.2
MSAQ12	Telegraph Pole Keymer Road Hassocks	52.6	43.2	Lost	45.1	45.6	35.6	33.5	31.7	43.3	42.5	37.9	42.7
MSAQ13	Lamp Post Keymer Road Hassocks	57.4	42.9	56.5	41.6	55.5	25.3	29.5	37.4	45.8	49.2	50.9	45.1
MSAQ14	Bus Stop London Road Hassocks	42.2	30.9	44.0	38.3	40.3	41.8	58.2	52.3	41.5	42.2	45.6	41.4
MSAQ15	Traffic Light Sign London Road Hassocks	47.6	25.5	46.4	23.3	39.4	39.7	45.0	44.7	37.6	43.6	41.6	40.7
MSAQ16	Façade of residential premises Brighton Road Hassocks	27.8	16.9	29.1	26.9	23.3	18.2	22.0	19.6	26.1	25.3	Lost	Lost
MSAQ17	Lamp Post Brighton Road Hassocks	34.6	20.9	33.4	27.6	25.3	20.4	18.6	22.4	25.6	28.9	28.1	28.9
MSAQ18	Bus Stop Brighton Road Hassocks	44.8	30.9	41.6	30.6	36.3	30.1	29.5	34.6	40.7	36.2	39.6	36.8
MSAQ19	Lamp Post Hurst Road Hassocks	29.6	18.1	32.0	26.8	16.8	13.2	14.6	17.3	18.7	21.3	Lost	26.8
MSAQ20	New Way Lane Hurstpierpoint	12.7	4.9	15.7	Lost	9.3	6.3	6.2	9.1	5.5	11.8	12.5	12.7

Mid Sussex District Council

MSAQ21	London Road Burgess Hill			22.6	Lost	32.3	27.9	22.9	27.3	30.9	40.5	40.9	44.6
MSAQ22	Leylands Road Burgess Hill			41.3	31.7	26.6	18.8	17.0	22.3	26.2	32.2	35.5	34.4