



2019 Air Quality Annual Status Report (ASR)

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

July, 2019

Mid Sussex District Council

Local Authority Officer	Nick Bennett
Department	Environmental Health
Address	Oaklands Road Haywards Heath West Sussex RH19 1SS
Telephone	01444 477292
E-mail	pollution@midsussex.gov.uk
Report Reference number	MSDC ASR 2019
Date	July 2019

Executive Summary: Air Quality in Our Area

This report details the results of air quality monitoring undertaken in 2018 across Mid Sussex District and is prepared in accordance with the guidance issued by the Department for Environment, Food and Rural Affairs (Defra).

Local Authorities across the United Kingdom are required to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives set by the Government are likely to be achieved. Where exceedances are 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.

Mid Sussex District Council (MSDC) declared an AQMA at Stonepound Crossroads in Hassocks in 2012. Since then pollution levels have started to decline. The Council's AQAP includes measures such as "intelligent" traffic lights to improve traffic flow, "cut engine, cut pollution" signs, travel plans, planning controls and promotion of more sustainable transport.

We believe that by working together with the public and our partners, we can reduce reliance on the car and improve the air that we all breathe.

Air Quality in Mid Sussex

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 inequalities issues, because areas with poor air quality are also often the less affluent areas^{1,2}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³.

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

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

The area covered by Mid Sussex District Council is primarily countryside with three major towns. One area of the district, the Sussex Downs, has been designated as part of a National Park, with a significant number of villages, hamlets, ancient churches and woodlands in character and does not incorporate a significant heavy industrial base. Locally, the most significant contributions to poor air quality come from road transport and the air pollutant of most concern is nitrogen dioxide (NO₂).

Road transport is responsible for some 80% of NO₂ concentrations at the roadside, with diesel vehicles of greatest concern at a local level. This is due in part to improvements in real world emissions testing showing that laboratory test-based emission standards have not delivered the expected reductions.

The main source of air pollution in the district is road traffic emissions mostly from major roads, notably the increased use by HGV traffic on the A2300 link from the A23 and the A273 north and south of Hassocks.

Air quality monitoring and modelling carried out by the Council indicated that despite good air quality within most of the District, the air quality objectives for Nitrogen Dioxide (NO₂) were not being met in the Stonepound Crossroads area of Hassocks where the A273 Brighton Road intersects with the B2116 Keymer Road. Therefore, in March 2012 an Air Quality Management Area (AQMA) was declared at Stonepound Crossroads Hassocks.

Monitoring results across the district in 2018 are mixed, some sites showing an increase in the Nitrogen Dioxide (NO₂) levels compared to those recorded in 2017, notably the monitoring points inside the Stonepound Crossroads AQMA which all show a slight increase. This may be at least partially attributable to the housing development close by with its associated traffic management measures and additional HGV movements, as well as traffic management on the A2300 in preparation for the future road widening. Other sites, including the 3 main urban centres, show a decrease in NO₂ levels. The long-term trend, despite the increase at some sites, appears to be continuing downwards.

Within the AQMA at Stonepound Crossroads in Hassocks the main pollutant (NO₂) is from road traffic emissions. Exceedances are due to the topography and volume of road traffic. Since the AQMA was declared there has been an overall reduction in measured NO₂.

The Council have drawn up an Air Quality Action Plan (AQAP) which focuses on a range of measures designed to limit the exceedance of the NO₂ air quality objective of 40ug/m³.

These include:

- Ensuring traffic light sequencing is operating at optimum efficiency
- Signage and advertising to encourage use of the A2300 as an alternative route
- Future widening of the A2300 as part of major development to the North of Burgess Hill
- “Cut engine, cut pollution” signs erected approaching each arm of the crossroads
- Travel wise schemes to promote sustainable transport - to include more car share schemes and alternatives to the car. Promotion of school and work travel plans. Development and promotion of cycle routes
- Education and raising awareness - increasing the availability of air quality information and incentivising people to change their travel behaviour
- Working with Planners to ensure appropriate mitigation measures are implemented for new development affecting the AQMA

Although the work under Local Air Quality Management (LAQM) is the legal obligation of district councils, actions aimed at improving air quality often require the cooperation of various departments and organisations. MSDC works in conjunction with other stakeholders, such as planning, Public Health England, West Sussex County Council (WSCC) highways, neighbouring districts, the Sussex-Air Partnership and the Environment Agency. The assessment and implementation of the identified traffic management schemes is done in cooperation with WSCC as they are the authority responsible for roads and transport management. An air quality action plan group has been set up, the work of which contributes largely to the development of Action Plans for the AQMA and the district as a whole. The Council is consulted by the Environment Agency upon the granting of environmental permits for ‘Part A1’ processes and liaises with the Agency regarding any issues concerning those permits.

Additionally, Mid Sussex District Council are members of the Sussex Air Quality Partnership (Sussex Air) which benefits from the co-ordinated monitoring of air pollutants across the region, and provides airAlert* and coldAlert services:

***airAlert is a free service for the residents of Sussex which provides an early warning of poor air quality by text/SMS, voice-mail or e-mail for individuals with asthma or poor respiratory health. This service is also available as a smart-phone app.**

Actions to Improve Air Quality

MSDC has taken forward a number of measures during the current reporting year of 2018 in pursuit of improving local air quality. The key actions in 2018 focused on a range of measures designed to limit the exceedance of the NO₂ air quality objective. These include:

- Ensuring traffic light sequencing continues to operate at optimum efficiency – a new software upgrade to the traffic light control is programmed for 2019.
- Signage and advertising to encourage use of the A2300 as alternative route
- Commencement of preparatory works for the widening of the A2300 as part of a forthcoming development
- Continuing to work with local schools to amend travel plans
- Working with Planning to ensure maximum mitigation measures implemented for any new development affecting the AQMA, including working on new Sussex wide planning guidance for developers with regard to air quality
- District Plan includes policies DP21 Transport and DP29 Noise, Air and Light requiring transport mitigation and due consideration to be given to Air Quality issues
- MSDC are part of Sussex Air's successful bid to Defra for funding of an anti-idling awareness campaign where schools and businesses near to AQMA's in Sussex have been visited as part of the campaign

Conclusions and Priorities

The only exceedances found in 2018 remain within the existing AQMA at Hassocks. The underlying trend for NO₂ levels within the AQMA, and in the district generally, remains downward. New residential developments near to the AQMA have been granted planning permission. However, modelling undertaken by developers indicates that increases in pollution attributable to these developments are not “significant” and the longer term downward trend in local pollution is likely to continue.

The Council’s priorities for the coming year are:-

- Work in partnership with West Sussex Public Health and West Sussex County Council to raise awareness of the facts relating to poor air quality, how to reduce sources of air pollution, focusing on the co-benefits of active travel to health and wellbeing; and how to reduce exposure to air pollution during episodes of poor air quality (air/Alert)
- The promotion of “Green” travel at the Council with incentives for staff to take sustainable methods of travel into work to promote the cycle-to-work scheme and Easit membership benefits. Council staff now have access to electric bikes.
- Improvement to new cycling and walking routes from Hassocks Station to the South Downs Way via Lodge Lane. An options appraisal has now been completed.
- The delivery of works worth £460,000 has been identified to progress the cycle links between Stonepound Crossroads and Dale Avenue, Keymer Road and Windmills Junior School and an alternate cycle route between Albourne Road and Hassocks Road, and this will progress to the design stage in 2019/20. Construction could potentially take place in 2021/22.
- MSDC are part of West Sussex County Council’s *Breathing Better: a partnership approach to improving air quality in West Sussex* and attend the Inter Authority Air Quality Group made up of the county, districts and boroughs.

- Following the upgrade of slow electric vehicle chargers to fast chargers in MSDC car parks and installation of rapid chargers in the car park at Hassocks Train Station, new sites for charging are to be identified in liaison with Planning Officers and other partners
- Car sharing continues to be promoted through the Green Travel Pages on the MSDC intranet.
- Hassocks Parish Council to consider parking restrictions on the roads in the area north east of the crossroads (e.g. Stanford Avenue), to dissuade commuters from driving through the AQMA to park for free during the day.
- Continuing to educate & encourage members of the public to reduce reliance on car use.
- Effective communication of the issues to the public, professional partners and colleagues
- Following recent elections, newly elected members to receive training on air quality issues, the council's responsibilities with regard to LAQM, and how air quality fits into the planning regime
- Making the crossroads more user friendly with pedestrian and cycling facility improvements such as puffin crossings, advanced stop-lines and early release signals for cyclists.

Local Engagement and How to get Involved

In 2018 Elected Members received specific training on Air Quality and the Scrutiny Committee for Community, Housing and Planning reviewed the work on the Annual Air Quality Progress report. Following the local elections in May 2019, new Members will also be offered training on Air Quality and the impact on planning.

MSDC continue to be members of the Sussex Air Quality Partnership (Sussex Air) which benefits from the co-ordinated monitoring of air pollutants across the region, including the airAlert and coldAlert services:

airAlert

Sussex Air offers to residents of Sussex a free service which provides an early warning of poor air quality by text/SMS, voice-mail or e-mail for individuals with asthma or poor respiratory health.

This service is also available as a smart-phone app.

coldAlert

Sussex Air offers to residents in Sussex free cold weather alerts. The service is open over the winter months, normally from November to March, and sends alerts by text/SMS, voice-mail or e-mail to individuals who may be susceptible to the cold weather.

This service is also available as a smart-phone app.

To receive local air pollution alerts and /or cold weather alerts you register at

- airAlert online at www.airalert.info/
- coldAlert online at www.coldalert.info/
- both by telephone on 01273 484 337
- alternatively download the airAlert app for Apple or Android phones

Additionally, members of the public are able to:

- Plan travel routes via Travel West Sussex at <http://www.travelwestsussex.co.uk/>
- Find out from their child's school about available travel options for getting to school
- See the Air Quality section of the council's website for information on Bonfires & Smoke, current & previous air quality reports, Stonepound Crossroads AQMA and AQAP

Table of Contents

Executive Summary: Air Quality in Our Area	i
Air Quality in Mid Sussex	i
Actions to Improve Air Quality	iv
Conclusions and Priorities	v
Local Engagement and How to get Involved	vi
1 Local Air Quality Management	1
2 Actions to Improve Air Quality	2
2.1 Air Quality Management Areas.....	2
2.2 Progress and Impact of Measures to address Air Quality in Mid Sussex	4
2.3 PM _{2.5} – Local Authority Approach to Reducing Emissions and/or Concentrations.....	12
3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance	13
3.1 Summary of Monitoring Undertaken	13
3.1.1 Non-Automatic Monitoring Sites.....	13
3.2 Individual Pollutants	13
3.2.1 Nitrogen Dioxide (NO ₂).....	13
Appendix A: Monitoring Results	14
Appendix B: Full Monthly Diffusion Tube Results for 2018	28
Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC	30
Appendix D: Maps of Monitoring Locations and AQMAs	31
Appendix E: Summary of Air Quality Objectives in England	48
Glossary of Terms	49
References	50

List of Tables

Table 2.1 – Declared Air Quality Management Areas.....	3
Table 2.2 – Progress on Measures to Improve Air Quality	9
Table A.2 – Details of Non-Automatic Monitoring Sites	14
Table A.3 – Annual Mean NO ₂ Monitoring Results for 2014 to 2018.....	17
Table B.1 – NO ₂ Monthly Diffusion Tube Results for 2018.....	28
Table E.1 – Air Quality Objectives in England	48

List of Figures

Figure A.1 – Trends in Annual Mean NO₂ Concentrations20

1 Local Air Quality Management

This report provides an overview of air quality in Mid Sussex during 2018. 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 Mid Sussex 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 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 compliance with the objectives.

A summary of the AQMA declared by MSDC can be found in Table 2.1. Further information related to the declared AQMA, including a map of AQMA boundaries are available online at <https://www.midsussex.gov.uk/media/1811/stonepound-crossroads-air-quality-management-area-order.pdf>.

Alternatively, see Appendix D: Maps of Monitoring Locations and AQMAs (Figure 11), which provides a map of air quality monitoring locations in relation to the AQMA.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	City / Town	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance (maximum monitored/modelled concentration at a location of relevant exposure)				Action Plan		
						At Declaration		Now		Name	Date of Publication	Link
Mid Sussex District Council AQMA (No.1) 2012	13/03/2012	NO2 Annual Mean	Hassocks	An area encompassing 3 residential properties at the junction of Stonepound Crossroads	YES	47	µg/m3	40.1	µg/m3	Mid Sussex District Council Air Quality Action Plan	2017	https://www.midsussex.gov.uk/media/1812/air-quality-action-plan-stonepound-crossroads.pdf

Mid Sussex confirm the information on UK-Air regarding their AQMA(s) is up to date

2.2 Progress and Impact of Measures to address Air Quality in Mid Sussex

Defra's appraisal of last year's ASR concluded (response in *italics*):

The report is well structured and comprehensive, and provides most of the information specified in the Guidance.

1. The 2017 monitoring results demonstrate that compliance with the annual mean NO₂ objective has been achieved in the AQMA and across the District.
2. No details have been provided about the bias adjustment and QA/QC of diffusion tube analysis in Appendix C. The report therefore cannot be accepted, and requires resubmission with this information included.

This was addressed and the report accepted.

3. Although compliance has been achieved within the AQMA, it is recommended that the AQMA remain in place and be considered for revocation after stable compliance below 10% of the objective level (<36 µg/m³) for three consecutive years.
4. The Local Authority should continue to implement their remaining AQAP measures to secure stable compliance within the AQMA.
5. The Local Authority may also wish to consider reviewing their current monitoring within the AQMA with a view to ensuring that sufficient evidence will be in place to demonstrate compliant concentrations throughout the AQMA and support its revocation in the future.

Monitoring within the AQMA is being reviewed as recommended.

6. The monitoring network does not appear to have had any new diffusion tube sites introduced in the last 3 years. The Local Authority should additionally review their wider monitoring network to ensure that

monitoring is taking place at all potential sites of exceedance at locations of relevant exposure.

The wider monitoring network has been reviewed and a number of changes have been implemented, some sites have been discontinued and new sites have been introduced.

7. Monitoring results have been corrected for distance as appropriate, and full details have been provided in Appendix C. This is encouraging to see, and should be continued in future reporting.
8. The Local Authority should consider developing KPIs and more specific pollutant reduction targets for their new AQAP measures. Completion dates for planning and implementation phases are also missing and should be included in future reports.

KPIs have been included where possible. The extent is limited due to some measures being hard to quantify and others being under the control of other partners rather than MSDC.

9. The Local Authority has measures in place to address PM_{2.5}, demonstrating their commitment towards mitigating this pollutant. It would be useful if Section 2.3 could make reference to the Public Health Outcomes Framework, and the local indicator for PM_{2.5} in the district.

Whilst we have no automatic monitors in the district, the Worthing AURN site measured PM_{2.5} at 10ug/m³ as an annual mean in 2018 (75% data capture). The national air quality objective level Target value is 25 µg/m³

10. It would be useful if AQMA boundary and monitoring sites were presented on the same map in Appendix D.

This has been provided as figure 9 in Appendix D

The local authority has updated its action plan and has determined that no additional measures are presently required given the underlying trend. Pollution levels are predicted to fall consistently below 40 µg/m³ within the near future and all available cost effective measures are already being utilised. Mid Sussex District Council has taken forward a number of measures during the current reporting year of 2018 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2.

Key completed measures are:

- “Cut Engine, Cut Pollution” signs erected
- Air/Alert service available
- District Plan now adopted including policies on Transport and Pollution
- Signage to encourage use of the A2300 as alternative route
- Continued working with Planning to ensure maximum mitigation measures implemented for all new developments in the vicinity of the AQMA
- Car sharing is promoted through the Green Travel Pages on the MSDC intranet.
- Working through the Mid Sussex Wellbeing Hub on initiatives aimed at respiratory illnesses.
- Links to air/Alert and cold/Alert published on the Council's website
- Mid Sussex District Plan includes reference to supporting additional cycle ways and bridleways, including routes to Clayton and Hurstpierpoint
- Section 106 funds were allocated from the Sustainable Transport Fund to successfully upgrade slow electric vehicle chargers to fast chargers in MSDC car parks.

Mid Sussex District Council expects the following measures to be completed over the course of the next reporting year:

- Commencement of improvements to new cycling and walking routes from Hassocks Station to the South Downs Way via Lodge Lane.

- The County Council continues to work with Sustrans to consider a prioritisation approach to the delivery of cycle route infrastructure across the county.
- New strategy for EV charging to be identified in liaison with Planning Officers, Wellbeing and other council officers.
- upgrading the traffic signals equipment at the four-way junction: this will improve the lights' efficiency and the junction's capacity
- introduction of user-activated puffin crossings in Hurst Road and London Road
- advanced cycle stop lines on all four arms of the crossroads to assist cyclists at the junction : this is in preparation for the county council cycle route scheme between Sayers Common and Downlands School
- widening work on Hurst Road and improved street lighting
- Sussex Air "Clean Burn" research, funded by Defra, aimed at better understanding drivers for domestic burning and publicising the how and why of using cleaner fuels and the use of cleaner appliances

Mid Sussex District Council's priorities for the coming year are:

- To more effectively use the planning regime and the updated Sussex Air Planning Guidance to ensure appropriate mitigation measures are used for all new development, especially close to the AQMA.
- To incentivise staff to use more sustainable methods of travel whenever possible and to continue to promote the cycle to work scheme and Easit membership benefits.
- To continue working with partners in Sussex Air on a number of initiatives including engaging more with Public Health and participating in the newly funded Anti-Idling Campaign.

The principal challenges and barriers to implementation that Mid Sussex District Council anticipates facing are:

- The existing restraints preventing improvements at the AQMA – traffic light sequencing is operating close to optimum performance; road widening or

other measures to improve flow limited by topography; alternative routes viewed by users as unreliable or taking longer.

- New development – the challenge of finding a balance between the need for new housing and the impact that the related traffic increase will have on existing pollution levels, particularly for forthcoming developments in the vicinity of the AQMA.
- Using available evidence to better understand air pollution in the context of public health and to disseminate this information.
- Increased numbers of HGV's during construction along with roadworks/traffic management could be affecting local NO₂ levels in the AQMA – controls are limited.

Progress on minimising HGV movements & encouragement of alternate transport modes has been slower than expected due to the fact that whilst funding has been received, the timing of improvements to the A2300 road is linked to progress with the Northern Arc development. Preliminary investigative works have now been completed, site clearance is expected to commence in September 2019 in anticipation of the start of full works in February 2020. The Neighbourhood Plan for Hassocks is yet to be approved with regard to the promotion of new cycle routes and will involve commitment from West Sussex County Council (WSSCC) for implementation. The plan is currently at the consultation stage.

The measures stated above and in Table 2.2 will help to contribute towards compliance, and Mid Sussex District Council anticipates that these measures in combination with the gradual modernisation of the vehicle fleet should result in a continuation of the existing downward trend in pollution levels, leading to future achievement of compliance and enabling the revocation of Stonepound Crossroads AQMA.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated / Actual Completion Date	Comments / Barriers to implementation
1	Traffic Light sequencing	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	MSDC, WSCC	Complete	Current	n/a	Reduced vehicle emissions from more efficient flow	Initial optimisation complete	2020	Re-design of junction confirmed as part of developer led junction proposals
2	Reducing HGV Throughflow by use of Advisory Lorry Routes	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	WSCC, Highways Agency	Ongoing	Ongoing	n/a	Reduced vehicle emissions from fewer HGV's	Some signs in place, publicity drive under consideration, road upgrade planned	2019/20	Alternative route not preferred option for drivers, further funding to be applied for from LGF
3	Cut Engine, cut pollution signs	Public Information	Via other mechanisms	WSCC, MSDC	Complete	Complete	n/a	Reduced vehicle emissions	Complete, possible re-design in 2019	2019	First phase successful, second phase on-going
4	MSDC Travel Plan	Promoting Travel Alternatives	Workplace Travel Planning	MSDC, Easit	Complete	Ongoing	n/a	Less private vehicle use	Council has joined Easit, Green travel day held, Cycle 2 Works scheme. Further events planned	2019	E-bikes now available for council staff

Mid Sussex District Council

5	School & Work Travel Plans	Promoting Travel Alternatives	School Travel Plans	WSCC, DfT	Some complete	Ongoing	n/a	Less private vehicle use	2 Schools with Travel plans, funding for Walk To scheme, also Bike It, car share and Travelwise schemes	2020	Applications for cycleway schemes made. Not adopted so far.
6	Improve & Promote cycle Routes	Promoting Travel Alternatives	Promotion of cycling	MSDC, WSCC	Ongoing	Consultation	n/a	Less private vehicle use	Options appraisal completed, design stage in 2019/20, construction in 2021/22.	2022	£3m cycle route between Sayers common and Community School in Hassocks (via AQMA).
7	Encourage Alternative Transport	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	MSDC, WSCC	Complete	Complete	EV charging points usage data	Less private vehicle use	W Sx travel website available, Bikeability training, MSDC car park EV charge points upgraded, Hassocks Station chargers upgraded, new sites being considered, Sustainable Travel event for business well attended, car share promotion,	2015-17	n/a
8	Partnership Work with Bus & Train operators	Alternatives to private vehicle use	Other	Govia, WSCC, Bus Companies	Ongoing	Ongoing	n/a	Greater use of public transport	Improvements at train station including cycle parking.	2021	Limited bus routes means real time signage stalled, s106 funds for real time signage in B Hill
9	Air Alert Service & Sussex Air Website	Public Information	Via other mechanisms	MSDC, Sussex Air	Complete	Ongoing	Number of Air Alert subscribers	Advanced warning of poor air quality, dissemination of data and info	Website has monitoring data for whole of Sussex, Air Alert service available	2019	Website upgrade now complete
10	MSDC District Plan	Policy Guidance and Development Control	Other policy	MSDC	Complete	Complete	n/a	Specific policies covering pollution, air quality and transport	District plan now published, additional guidance documents linked	2019	Updated Sussex Air AQ document released may 2019
11	Restricted parking in Hassocks	Traffic Management	Workplace Parking Levy, Parking Enforcement on highway	Hassocks parish Council, WSCC	Ongoing	Ongoing	n/a	Parking restrictions to reduce car use in AQMA	Parish report, public consultation. Parish Council looking to privately finance TRO to reduce commuter parking	2019	Proposals may be objected to by residents who wish to park there. Private finance may be an issue

Mid Sussex District Council

12	Consider Lower Speed Limit	Traffic Management	Reduction of speed limits, 20mph zones	WSCC	Complete	Complete	n/a	Less traffic	Considered non-viable and unlikely to have positive impact.	2017	Non-viable
13	Raise Awareness	Public Information	Via other mechanisms	WSCC & Public Health	Forthcoming	Forthcoming	n/a	Greater awareness	Work with partners to disseminate benefits of active travel etc. and techniques for reducing exposure	2019	Public health now engaged, information programmes and activities have commenced

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.

MSDC is taking the following measures to address PM_{2.5}.

MSDC undertakes air quality emissions reduction measures (set out in table 2.2) which are aimed at reducing NO₂ but will also contribute to reducing PM_{2.5} emissions as these air pollutants share a similar source, e.g. road traffic emissions, combustion sources.

Mid Sussex works in partnership with Public health to communicate the impacts of air pollution including PM_{2.5}. Additionally, Mid Sussex will utilise the “Air quality and emissions mitigation guidance for Sussex authorities (2019)” to encourage lower emission developments with planning and transport authorities to assist in reducing PM_{2.5} emissions.

Additionally, we are part of Sussex Air which has received Defra funding for a new *Clean Burn Sussex* project aimed at encouraging cleaner domestic burning.

Whilst we have no automatic monitors in the district, the Worthing AURN site measured PM_{2.5} at 10ug/m³ as an annual mean in 2018 (75% data capture). The national air quality objective level target value is 25 µg/m³. On this basis it is very unlikely that levels in Mid Sussex are exceeding the target value.

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

3.1 Summary of Monitoring Undertaken

3.1.1 Non-Automatic Monitoring Sites

Mid Sussex undertook non - automatic (passive) monitoring of NO₂ at 26 sites during 2018. **Error! Reference source not found.** 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) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. “annualisation” and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO₂)

Table A.2 in Appendix A compares the ratified and adjusted monitored NO₂ annual mean concentrations for the past 5 years with the air quality objective of 40µg/m³.

For diffusion tubes, the full 2018 dataset of monthly mean values is provided in Table B.1 in Appendix B.

Appendix A: Monitoring Results

Table A.1 – 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)
MSAQ1	South Road Haywards Heath	Roadside	533342	123587	NO ₂	NO	0m	2.5	NO	1.6
MSAQ2	Traunstein Way Bolnore Village Haywards Heath	Roadside	532155	122441	NO ₂	NO	45m	2.1	NO	2.0
MSAQ3	London Road East Grinstead	Kerbside	538690	138759	NO ₂	NO	18m	0.5	NO	2.2
MSAQ5	Lewes Road East Grinstead	Suburban	541245	136996	NO ₂	NO	16	1.5	NO	2.3
MSAQ6	Smugglers End Handcross	Roadside	526138	129827	NO ₂	NO	0	15	NO	1.8
MSAQ7	Crabbett Park Worth	Suburban	530440	137280	NO ₂	NO	0	50	NO	2.15
MSAQ9	Water Tower Colwood Lane Warninglid	Rural	525664	125035	NO ₂	NO	40	35	NO	2.1
MSAQ10	Stonepound Crossroads Hassocks	Roadside	529911	115489	NO ₂	YES	6.7	1.5	NO	1.7

MSAQ11	Over Court Northern Façade 1 Keymer Road Hassocks	Roadside	529930	115481	NO ₂	YES	0	5.5	NO	2.5
MSAQ12	Telegraph Pole Keymer Road Hassocks	Kerbside	529999	115488	NO ₂	NO	26	1.1	NO	2.4
MSAQ13	Lamp Post Keymer Road Hassocks	Kerbside	529995	115476	NO ₂	NO	19	0.85	NO	2.3
MSAQ14	Bus Stop London Road Hassocks	Kerbside	529911	115598	NO ₂	NO	23	1.6	NO	2.6
MSAQ15	Traffic Lights sign London Road Hassocks	Kerbside	529930	115600	NO ₂	NO	6.5	1.6	NO	2.4
MSAQ16	South Bank Lodge Keymer Road Hassocks	Roadside	529918	115441	NO ₂	YES	0	11.5	NO	2.4
MSAQ17	Lampost No.4B Brighton Road Hassocks	Kerbside	529894	115340	NO ₂	NO	10	1.25	NO	2.2
MSAQ18	Bus Stop Brighton Road Hassocks	Kerbside	529907	115428	NO ₂	NO	9	2	NO	2.5
MSAQ19	Lampost 04 Hurst Road Hassocks	Roadside	529779	115557	NO ₂	NO	13.2	1.3	NO	2.5

MSAQ20	New Way Lane Hurstpierpoint	Rural	528854	114517	NO ₂	NO	100	1.2	NO	2.3
MSAQ21	London Road Burgess Hill	Roadside	530792	119821	NO ₂	NO	2.5	1.9	NO	2.0
MSAQ22	Leylands Road Burgess Hill	Roadside	532160	120069	NO ₂	NO	3	1.5	NO	2.0
MSAQ23	Over Court Eastern Façade 1 Keymer Road Hassocks	Roadside	529935	115478	NO ₂	YES	0	5.8	NO	2.0
MSAQ24	Over Court Western Façade 1 Keymer Road Hassocks	Roadside	529918	115476	NO ₂	YES	0	7.5	NO	1.8
MSAQ25	Erica Way Cophthorne	Kerbside	531176	138829	NO ₂	NO	0	4	NO	2.0
MSAQ26	High Street Lampost No.14 Hurstpierpoint	Suburban	528289	116395	NO ₂	NO	0	2.1	NO	2.5
MSAQ27	London Road (A23 Sliproad) Hickstead	Suburban	526870	120238	NO ₂	NO	10	3.8	NO	2.2
MSAQ28	Rocky Lane Haywards Heath	Suburban	533342	122625	NO ₂	NO	11	1.3	NO	2.3

Notes:

- (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.2 – Annual Mean NO₂ Monitoring Results for 2014 to 2018

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2018 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
					2014	2015	2016	2017	2018
MSAQ1	Roadside	Diffusion Tube		100	22.7	19.5	21.7	20.8	20.1
MSAQ2	Roadside	Diffusion Tube		100	14.9	23.2	23.7	22.3	23.3
MSAQ3	Kerbside	Diffusion Tube		100	39.3	36.9	36.7	35.8	34.4
MSAQ4	Suburban	Diffusion Tube			18.7				
MSAQ5	Suburban	Diffusion Tube		100	37.2	32.8	34.5	31.0	30.0
MSAQ6	Roadside	Diffusion Tube		100	23.3	28.0	28.7	29.1	26.2
MSAQ7	Suburban	Diffusion Tube		92	27.1	25.3	26.5	23.6	22.5
MSAQ8	Roadside	Diffusion Tube			29.5				
MSAQ9	Rural	Diffusion Tube		100	8.0	8.0	10.0	9.0	9.0
MSAQ10	Roadside	Diffusion Tube		100	41.1	40.4	43.4	38.8	41.2
MSAQ11	Roadside	Diffusion Tube		100	42.7	40.5	43.2	38.5	40.1
MSAQ12	Kerbside	Diffusion Tube		92	36.5	35.5	38.2	33.7	33.5
MSAQ13	Kerbside	Diffusion Tube		100	41.0	42.1	44.7	43.8	38.9
MSAQ14	Kerbside	Diffusion Tube		100	40.5	35.0	36.0	32.5	34.0

MSAQ15	Kerbside	Diffusion Tube		92	35.8	36.9	37.9	35.1	35.1
MSAQ16	Roadside	Diffusion Tube		100	20.4	19.2	20.7	19.8	19.9
MSAQ17	Kerbside	Diffusion Tube		100	27.5	23.4	28.0	25.7	28.7
MSAQ18	Kerbside	Diffusion Tube		100	33.3	32.2	33.4	29.5	28.1
MSAQ19	Roadside	Diffusion Tube		92	18.4	16.5	18.7	18.6	17.4
MSAQ20	Rural	Diffusion Tube		75	8.8	8.2	9.1	9.0	9.3
MSAQ21	Roadside	Diffusion Tube		100	29.8	27.4	32.1	29.5	29.0
MSAQ22	Roadside	Diffusion Tube		100	28.3	27.3	28.4	27.9	27.0
MSAQ23	Roadside	Diffusion Tube		100	33.3	31.8	35.3	33.9	34.5
MSAQ24	Roadside	Diffusion Tube		100	22.5	22.5	28.3	23.1	24.0
MSAQ25	Kerbside	Diffusion Tube		100		29.1	30.0	28.8	26.9
MSAQ26	Suburban	Diffusion Tube		100		24.3	25.7	23.9	23.6
MSAQ27	Suburban	Diffusion Tube		92		21.4	23.3	20.5	22.8
MSAQ28	Suburban	Diffusion Tube		83					24.7

Diffusion tube data has been bias corrected

Notes:

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

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

- (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 Boxes 7.9 and 7.10 in LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Figure A.1 – Trends in Annual Mean NO₂ Concentrations

Annual mean concentrations (bias corrected) 2011 to 2018 of nitrogen dioxide diffusion tube measurements at five urban centre sites.

Year	London Road Burgess Hill MSAQ21	Leylands Road Burgess Hill MSAQ22	London Road East Grinstead MSAQ3	Lewes Road East Grinstead MSAQ5	South Road Haywards Heath MSAQ1
2011			39.1	35.6	24.2
2012	31.2	27.7	41.8	37.6	24.4
2013	34.0	30.6	37.5	34.3	24.6
2014	29.8	28.3	39.3	37.2	22.7
2015	27.4	27.3	36.9	32.8	19.5
2016	32.1	28.4	36.7	34.5	21.7
2017	29.5	27.9	35.8	31.0	20.8
2018	29.0	27.0	34.4	30.0	20.1

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

In 2013 concentrations reduced at the two sites in East Grinstead and increased at the two Burgess Hill sites.

In 2014 concentrations reduced at three of the sites and increased at the two sites in East Grinstead.

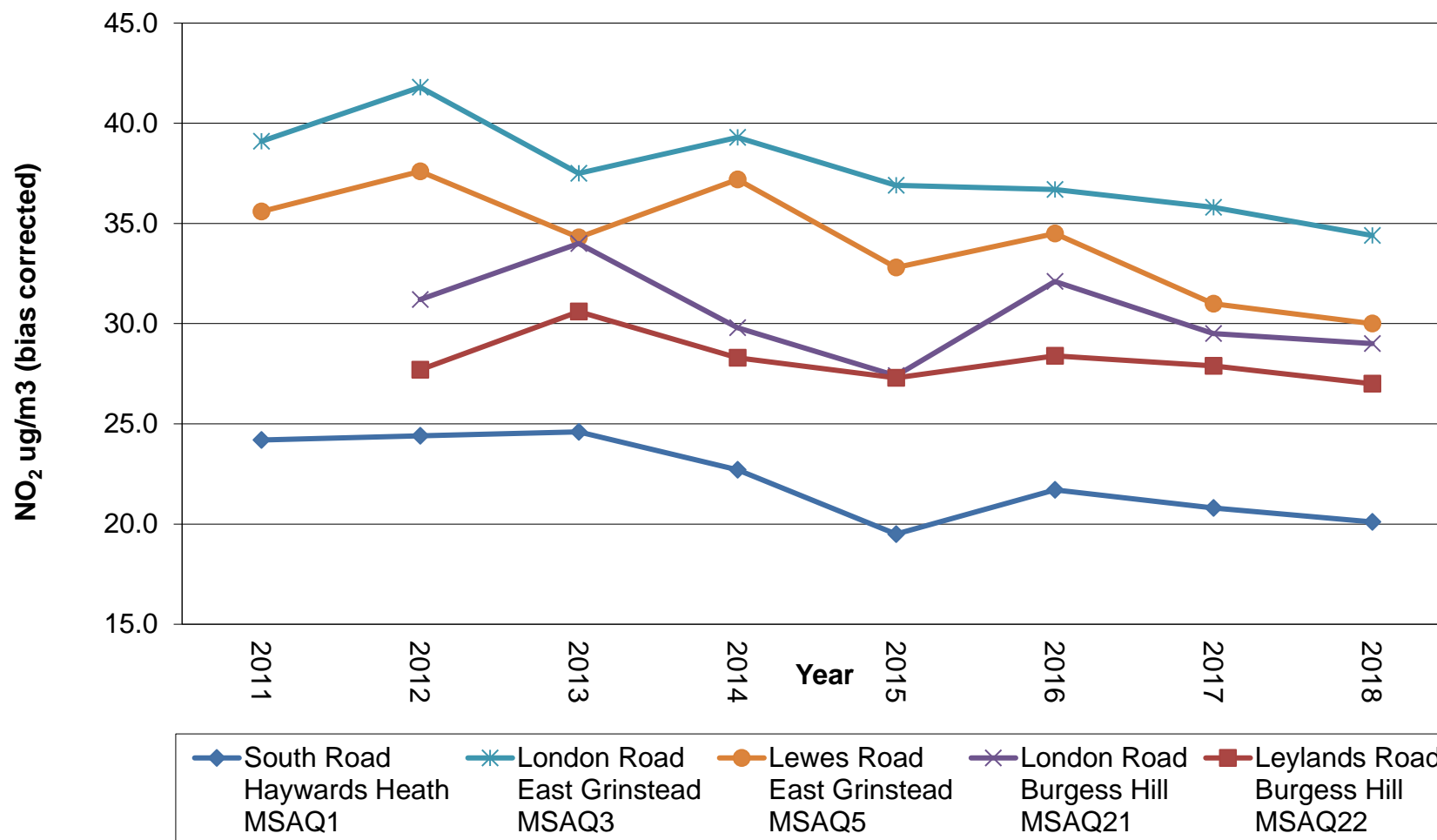
All sites showed a reduction in levels in 2015.

4 sites showed an increase in 2016.

All sites showed a reduction in levels in 2017 and 2018

Overall the levels have reduced since 2011.

Nitrogen Dioxide Monitoring Trends at 5 Urban Centres 2011 - 2018



Annual mean concentrations (bias corrected) 2011 to 2018 of nitrogen dioxide diffusion tube measurements at four villages, one hamlet and two rural background sites

Year	Smugglers End Handcross MSAQ6	Copthorne MSAQ25	High Street Hurstpierpoint MSAQ26	London Road Hickstead MSAQ27	Crabbett Park Worth (Hamlet) MSAQ7	Warninglid (rural background) MSAQ9	Hurstpierpoint (rural background) MSAQ20
2011	28.2				29.1	10.2	13.5
2012	31.6				30.1	9.2	9.4
2013	23.9				26.7	11.0	10.9
2014	23.3				27.1	8.0	8.8
2015	28.0	29.1	24.3	21.4	25.3	8.0	8.2
2016	28.7	30.0	25.7	23.3	26.5	10.0	9.1
2017	29.1	28.8	23.9	20.5	23.6	9.0	9.0
2018	26.2	26.9	23.6	22.8	22.5	9.0	9.3

Two of the sites showed an increase in levels in 2012, whilst the other two reduced.

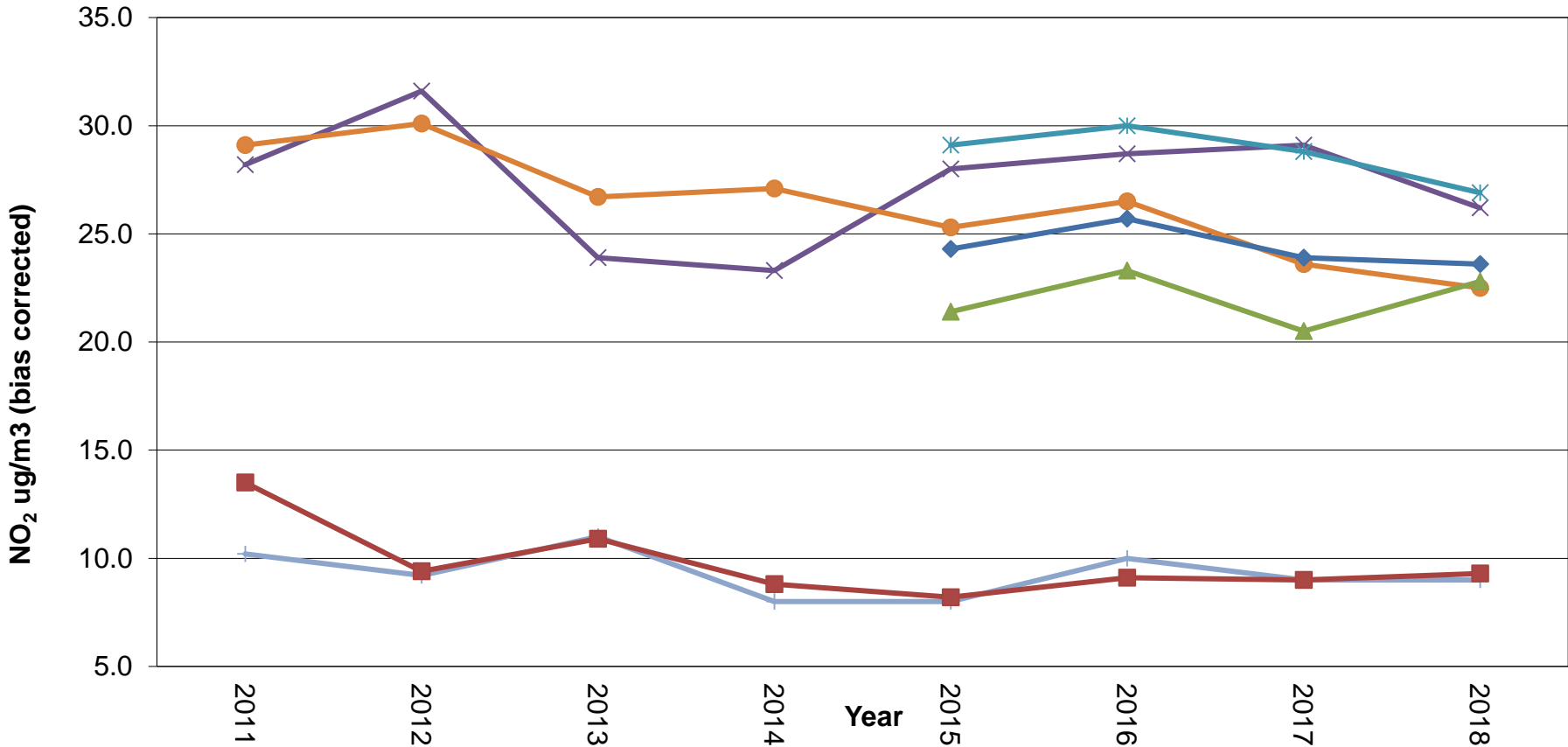
Three of the sites showed a reduction in 2014.

Six of the sites showed a minor reduction in 2017 from 2016.

4 of the sites have shown a reduction in 2018 from those recorded in 2015

Overall the levels have reduced at 4 of the sites since 2011.

Nitrogen Dioxide Monitoring Trends at 4 Villages 1 Hamlet and 2 Rural Background Sites
2011 - 2018



✕ Smugglers End Handcross (MSAQ6)
 ● Crabbett Park (Hamlet) (MSAQ7)
 + Warringlid (rural background) (MSAQ9)
 ■ Hurstpierpoint (rural background) (MSAQ20)
 ✱ Copthorne (MSAQ25)
 ◆ High Street Hurstpierpoint (MSAQ26)
 ▲ London Road Hickstead (MSAQ27)

Annual mean concentrations (bias corrected) 2011 to 2018 of nitrogen dioxide diffusion tube measurements at Hassocks.

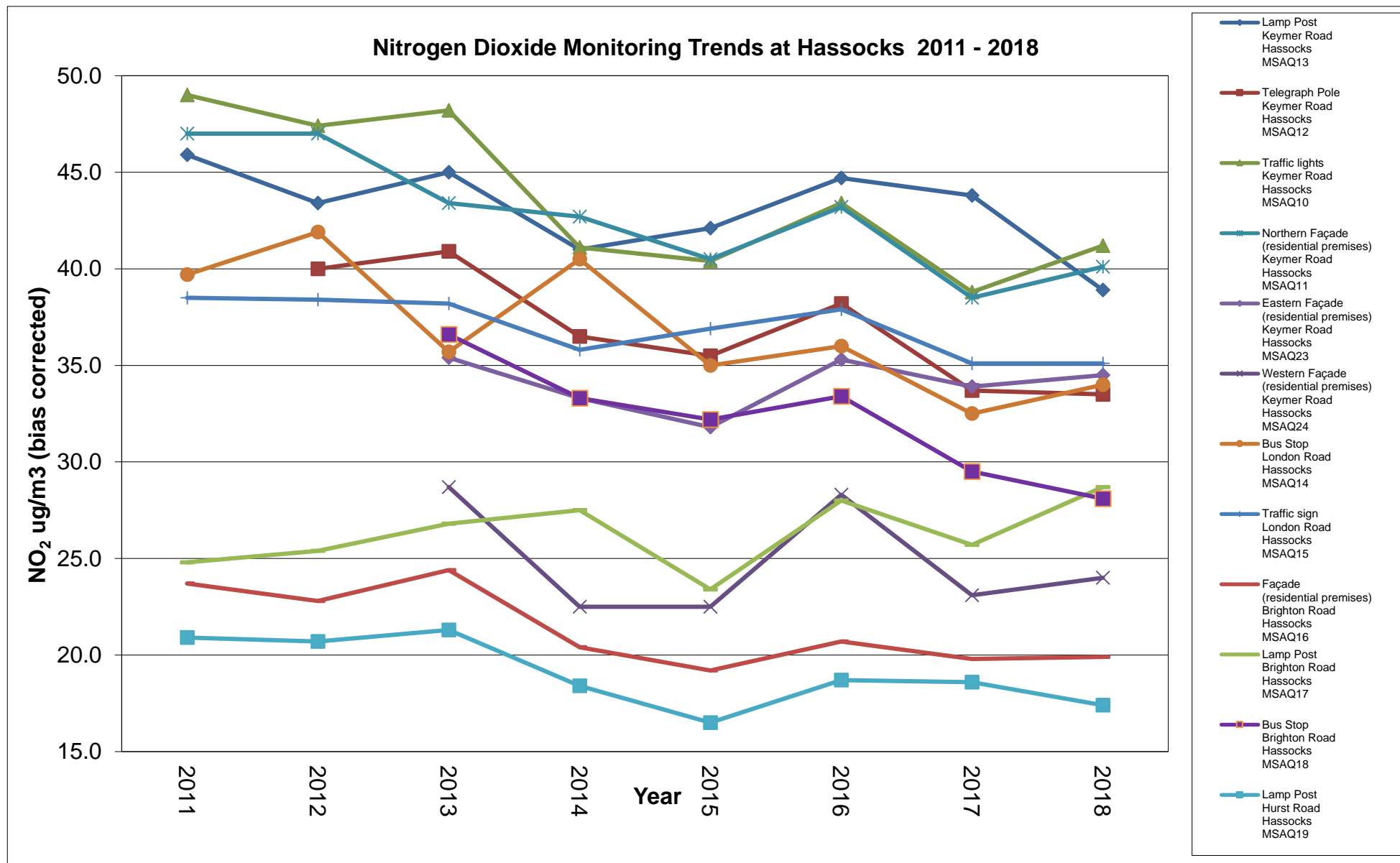
Year	Lamp Post Keymer Road Hassocks MSAQ13	Telegraph Pole Keymer Road Hassocks MSAQ12	Traffic lights Keymer Road Hassocks MSAQ10	Northern Façade (residential premises) Keymer Road Hassocks MSAQ11	Eastern Façade (residential premises) Keymer Road Hassocks MSAQ23	Western Façade (residential premises) Keymer Road Hassocks MSAQ24	Bus Stop London Road Hassocks MSAQ14	Traffic sign London Road Hassocks MSAQ15	Façade (residential premises) Brighton Road Hassocks MSAQ16	Lamp Post Brighton Road Hassocks MSAQ17	Bus Stop Brighton Road Hassocks MSAQ18	Lamp Post Hurst Road Hassocks MSAQ19
2011	45.9		49.0	47.0			39.7	38.5	23.7	24.8		20.9
2012	43.4	40.0	47.4	47.0			41.9	38.4	22.8	25.4		20.7
2013	45.0	40.9	48.2	43.4	35.4	28.7	35.7	38.2	24.4	26.8	36.6	21.3
2014	41.0	36.5	41.1	42.7	33.3	22.5	40.5	35.8	20.4	27.5	33.3	18.4
2015	42.1	35.5	40.4	40.5	31.8	22.5	35.0	36.9	19.2	23.4	32.2	16.5
2016	44.7	38.2	43.4	43.2	35.3	28.3	36.0	37.9	20.7	28.0	33.4	18.7
2017	43.8	33.7	38.8	38.5	33.9	23.1	32.5	35.1	19.8	25.7	29.5	18.6
2018	38.9	33.5	41.2	40.1	34.5	24.0	34.0	35.1	19.9	28.7	28.1	17.4

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

Two of the sites are above the national air quality objective in 2018 compared to 3 in 2016.

The 2016 level recorded at the location of relevant exposure (MSAQ11 - Over Court, Northern façade, Keymer Road, Hassocks) remained above the objective level at 43.2µg/m³ this has reduced in 2018 to 40.1µg/m³.

Overall the levels recorded from 2013 to 2018 show a downward trend.



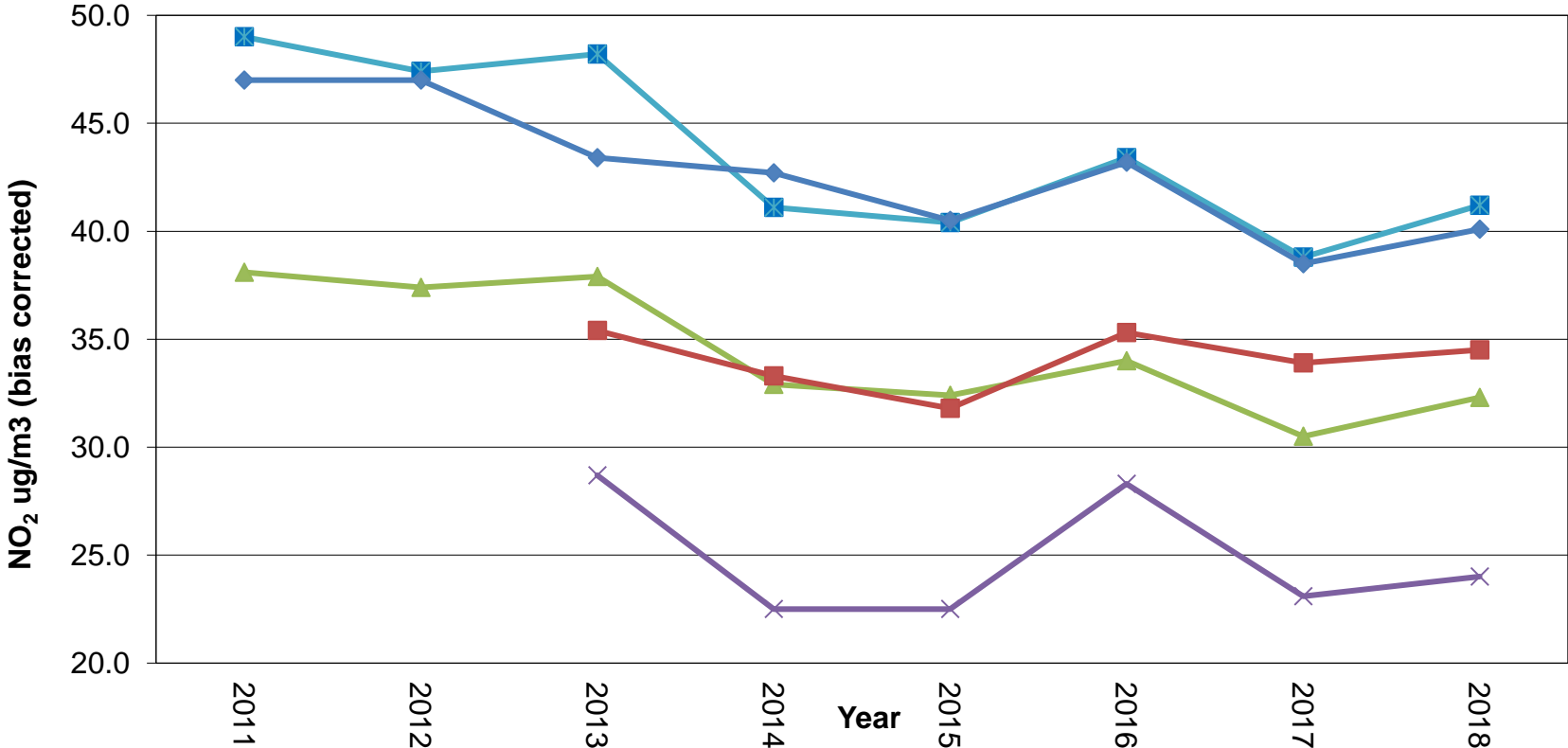
Annual mean concentrations (bias corrected) 2011 to 2018 of nitrogen dioxide diffusion tube measurements within the AQMA at Stonepound Hassocks

Year	Traffic lights Keymer Road Hassocks MSAQ10	Distance corrected results for Traffic lights Keymer Road Hassocks (see Appendix C MSAQ10)	Northern Façade (residential premises) Keymer Road Hassocks MSAQ11	Eastern Façade (residential premises) Keymer Road Hassocks MSAQ23	Western Façade (residential premises) Keymer Road Hassocks MSAQ24
2011	49.0	38.1	47.0		
2012	47.4	37.4	47.0		
2013	48.2	37.9	43.4	35.4	28.7
2014	41.1	32.9	42.7	33.3	22.5
2015	40.4	32.4	40.5	31.8	22.5
2016	43.4	34.0	43.2	35.3	28.3
2017	38.8	30.5	38.5	33.9	23.1
2018	41.2	32.3	40.1	34.5	24.0

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

There has been an overall reduction in the levels recorded at the sites within the AQMA area since it was declared in 2012.

Nitrogen Dioxide Monitoring Trends in AQMA Hassocks 2011 - 2018



<ul style="list-style-type: none"> Traffic lights Keymer Road Hassocks MSAQ10 	<ul style="list-style-type: none"> Distance corrected results for Traffic lights Keymer Road Hassocks MSAQ10 	<ul style="list-style-type: none"> Northern Façade (residential premises) Keymer Road Hassocks MSAQ11 	<ul style="list-style-type: none"> Eastern Façade (residential premises) Keymer Road Hassocks MSAQ23 	<ul style="list-style-type: none"> Western Façade (residential premises) Keymer Road Hassocks MSAQ24
--	---	--	---	---

Appendix B: Full Monthly Diffusion Tube Results for 2018

Table B.1 – NO₂ Monthly Diffusion Tube Results for 2018

Site ID	NO ₂ Mean Concentrations (µg/m ³)												Annual Mean		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.92) and Annualised ⁽¹⁾	Distance Corrected to Nearest Exposure ⁽²⁾
MSAQ1	22.3	24.4	24.1	23.7	21.2	13.5	22.9	18.0	22.5	24.1	21.0	25.1	21.9	20.1	
MSAQ2	27.7	29.8	26.5	27.6	24.6	19.9	21.1	19.2	23.5	27.7	26.6	28.8	25.3	23.3	
MSAQ3	36.1	37.6	35.7	38.2	35.3	20.7	45.5	37.3	38.8	42.7	38.3	42.8	37.4	34.4	20.5
MSAQ5	34.4	36.8	30.3	31.2	32.3	20.8	35.6	28.4	30.6	35.6	33.4	41.5	32.6	30.0	19.0
MSAQ6	26.3	27.1	24.1	31.9	24.3	16.5	35.2	29.6	33.6	34.8	26.8	31.8	28.5	26.2	
MSAQ7	25.9	26.5	25.1	26.1		15.0	22.9	21.1	25.2	27.3	25.6	28.6	24.5	22.5	
MSAQ9	10.6	13.3	11.9	8.2	9.8	7.0	7.4	6.5	7.5	10.0	13.5	12.1	9.8	9.0	
MSAQ10	44.3	48.2	37.8	38.8	54.2	48.6	48.3	36.2	43.4	50.1	41.7	46.5	44.8	41.2	32.3
MSAQ11	42.8	38.4	38.7	45.3	44.9	41.4	53.4	38.8	44.2	45.8	44.3	45.0	43.6	40.1	
MSAQ12	38.6	36.9	34.9	35.9	36.7	37.9	37.6	32.3	32.2	38.5		38.6	36.4	33.5	
MSAQ13	50.7	43.5	49.0	46.9	48.6	34.9	36.5	26.1	36.1	50.9	37.2	46.6	42.3	38.9	21.2
MSAQ14	36.0	38.5	31.1	35.0	37.6	34.2	45.6	32.3	29.8	41.3	44.3	38.1	37.0	34.0	
MSAQ15	38.7		36.6	43.7	32.9	32.0	51.2	37.1	39.8	43.4	27.4	37.4	38.2	35.1	26.1
MSAQ16	23.0	23.5	19.5	21.9	24.1	17.4	19.6	17.2	22.1	27.1	19.8	24.1	21.6	19.9	
MSAQ17	25.9	30.5	31.9	34.2	32.8	22.1	39.0	31.7	32.0	41.8	23.7	28.7	31.2	28.7	20.1
MSAQ18	33.9	38.3	23.3	27.6	36.7	31.7	27.3	21.5	24.8	35.1	29.6	36.6	30.5	28.1	20.9
MSAQ19	24.5	25.0	24.0		15.6	12.9	16.9	15.1	16.6	14.2	20.7	22.7	18.9	17.4	13.7

Mid Sussex District Council

MSAQ20	12.5	14.3	12.0	10.8	9.4	6.6	8.5	8.4	8.8				10.1	9.3	
MSAQ21	30.9	35.5	30.8	35.2	35.2	23.6	30.2	23.5	27.9	39.1	33.7	32.3	31.5	29.0	25.8
MSAQ22	32.6	36.0	31.5	27.9	29.9	23.3	25.8	19.8	27.8	34.0	30.3	33.2	29.3	27.0	23.0
MSAQ23	40.6	38.4	32.3	41.3	38.6	35.9	36.6	31.4	34.5	39.8	35.3	45.3	37.5	34.5	
MSAQ24	28.7	34.4	22.5	25.6	29.4	22.9	23.2	20.3	26.0	30.8	24.4	25.4	26.1	24.0	
MSAQ25	33.9	32.9	29.2	31.1	25.4	20.4	31.5	26.2	27.8	29.5	29.6	32.3	29.2	26.9	
MSAQ26	28.2	30.9	23.9	24.3	24.5	22.0	25.0	21.3	26.7	28.1	22.0	31.8	25.7	23.6	22.5
MSAQ27	21.1	32.6	26.4	25.5	26.7	17.8	23.9	17.1	20.4	31.2	29.9		24.8	22.8	19.0
MSAQ28			30.0	29.9	26.5	20.2	26.9	22.0	26.5	29.3	31.9	25.5	26.9	24.7	18.0

National bias adjustment factor used

Where applicable, data has been distance corrected for relevant exposure

Notes:

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

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

(1) See Appendix C for details on bias adjustment.

(2) Distance corrected to nearest relevant public exposure.

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

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 0.92 taken from the database of diffusion tube bias factors spreadsheet (v06_19) 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.

Appendix D: Maps of Monitoring Locations and AQMAs

Figure 1 MSAQ1 South Road, Haywards Heath, adjacent to The Cook Shop

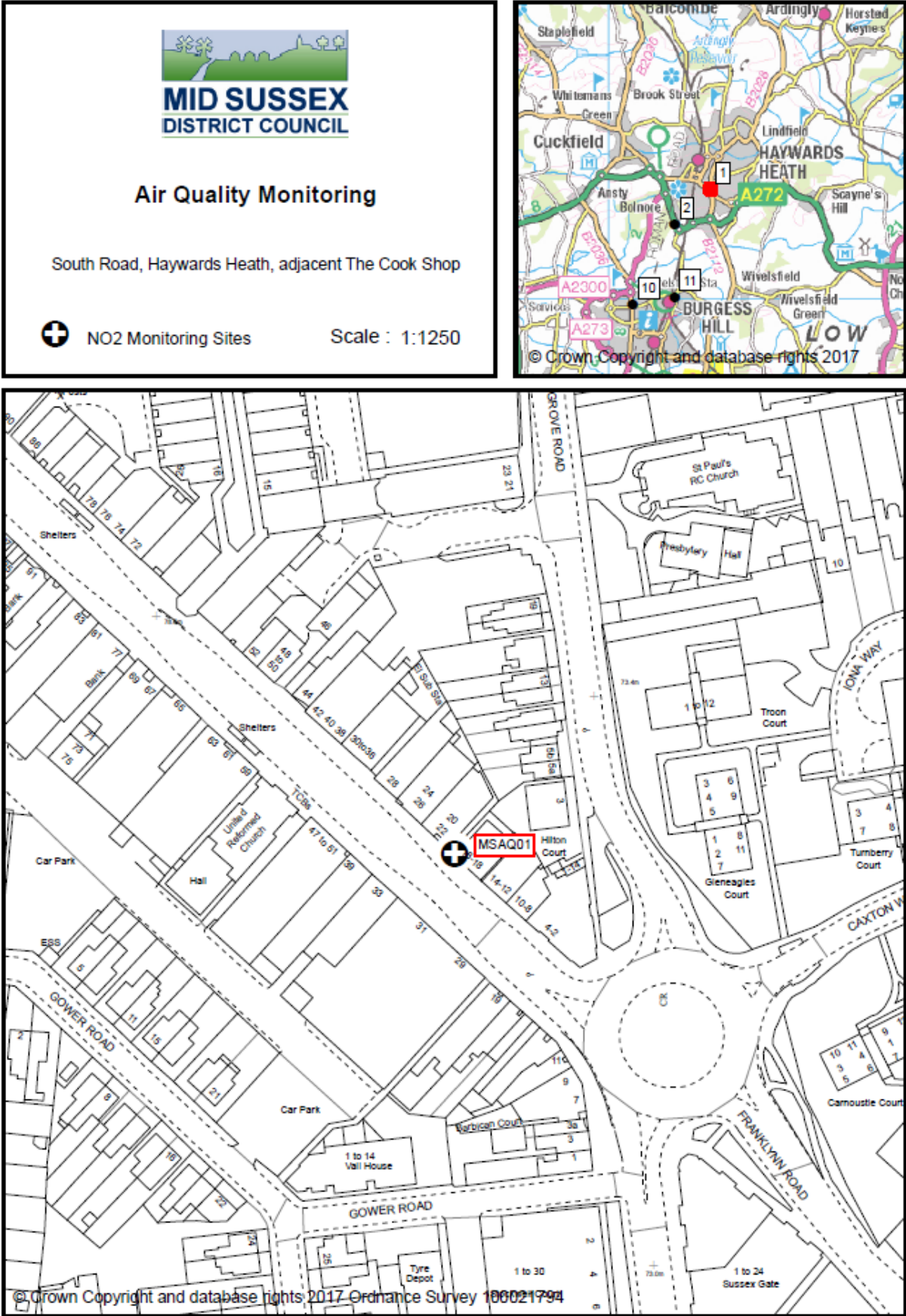


Figure 2 MSAQ2 Lower Village roundabout, Traunstein Way, Haywards Heath

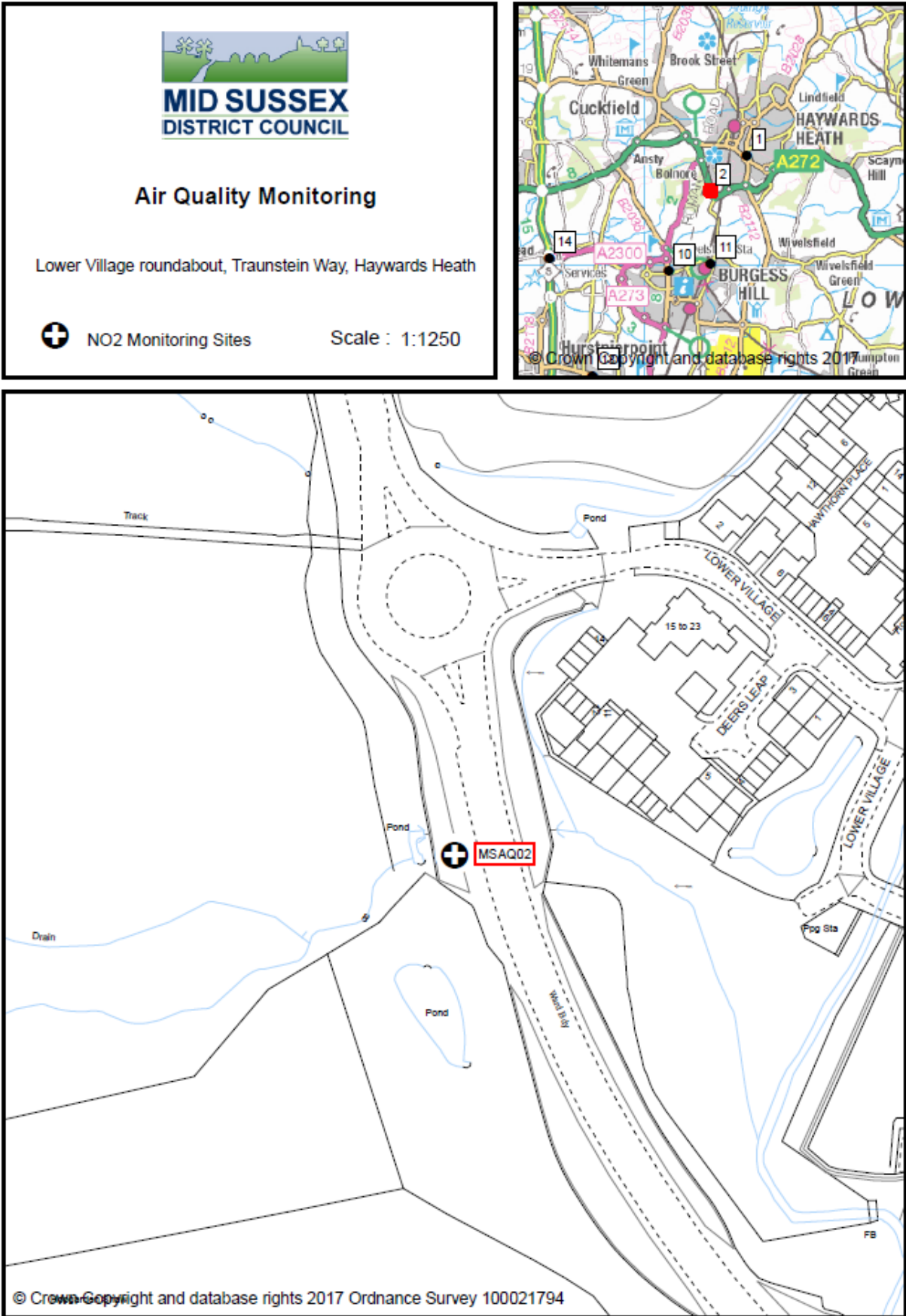


Figure 3 MSAQ3 London Road, East Grinstead, adjacent to Southwick House

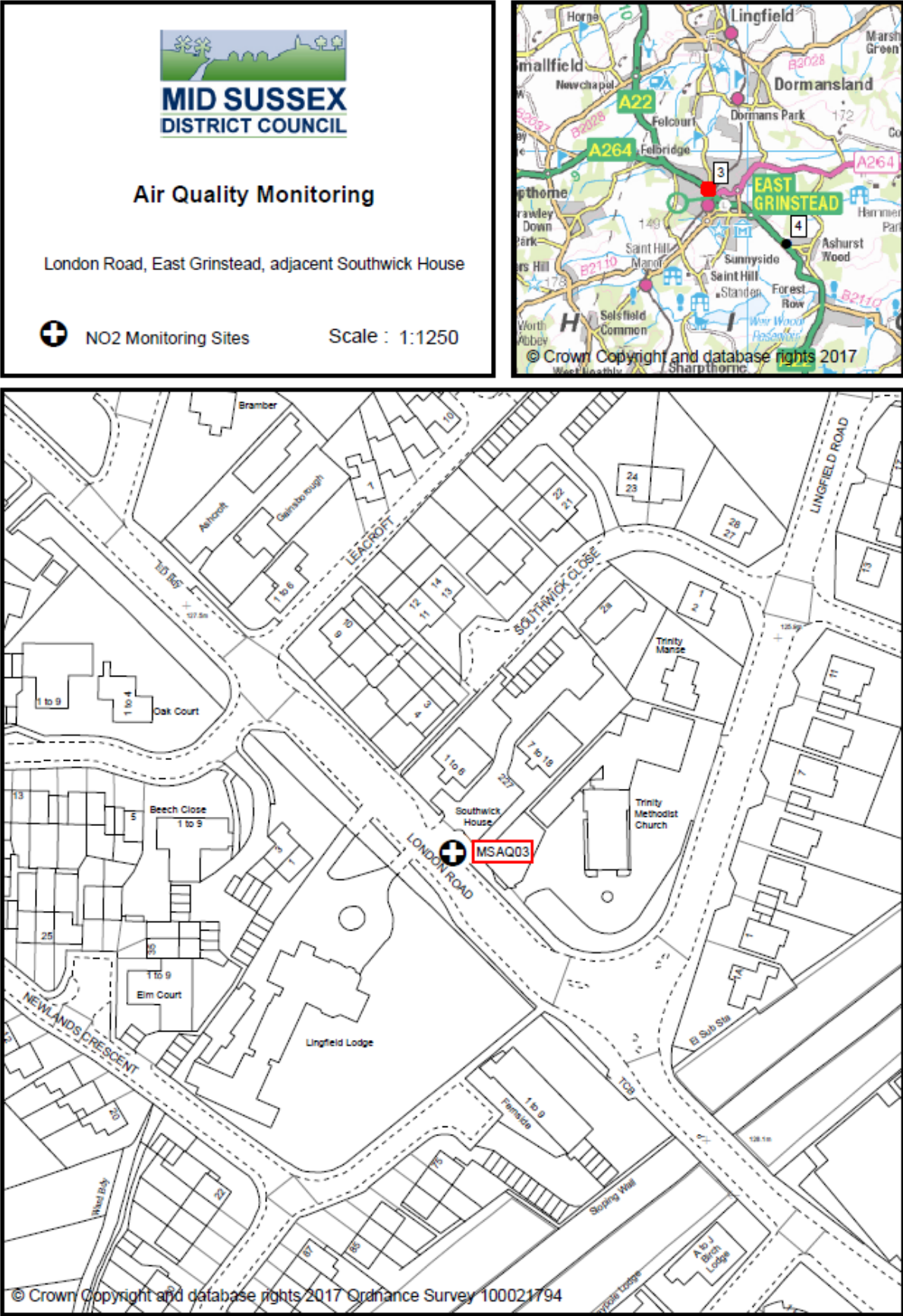


Figure 4 MSAQ5 Lewes Road, East Grinstead

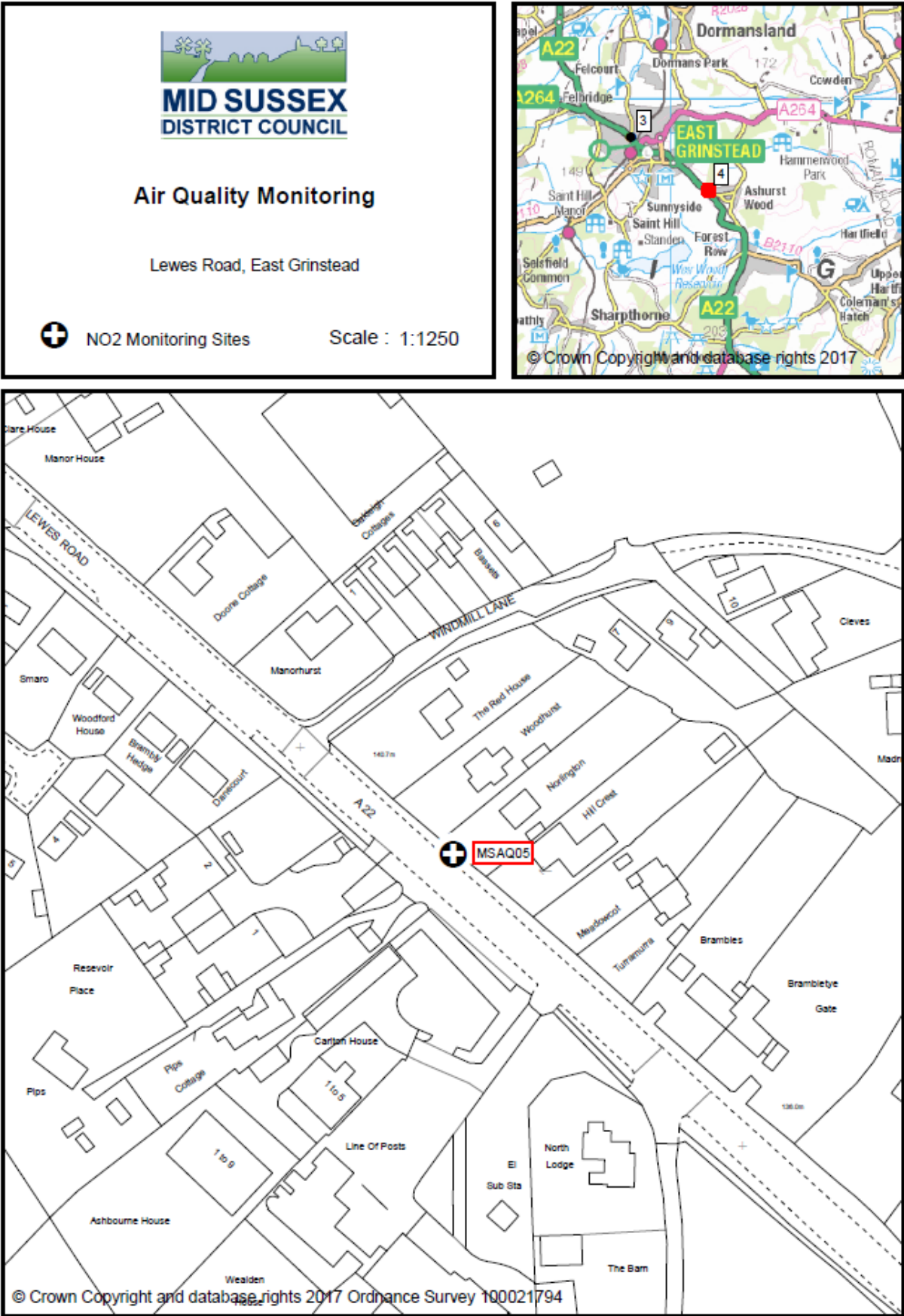


Figure 5 MSAQ6 Smugglers End, Handcross

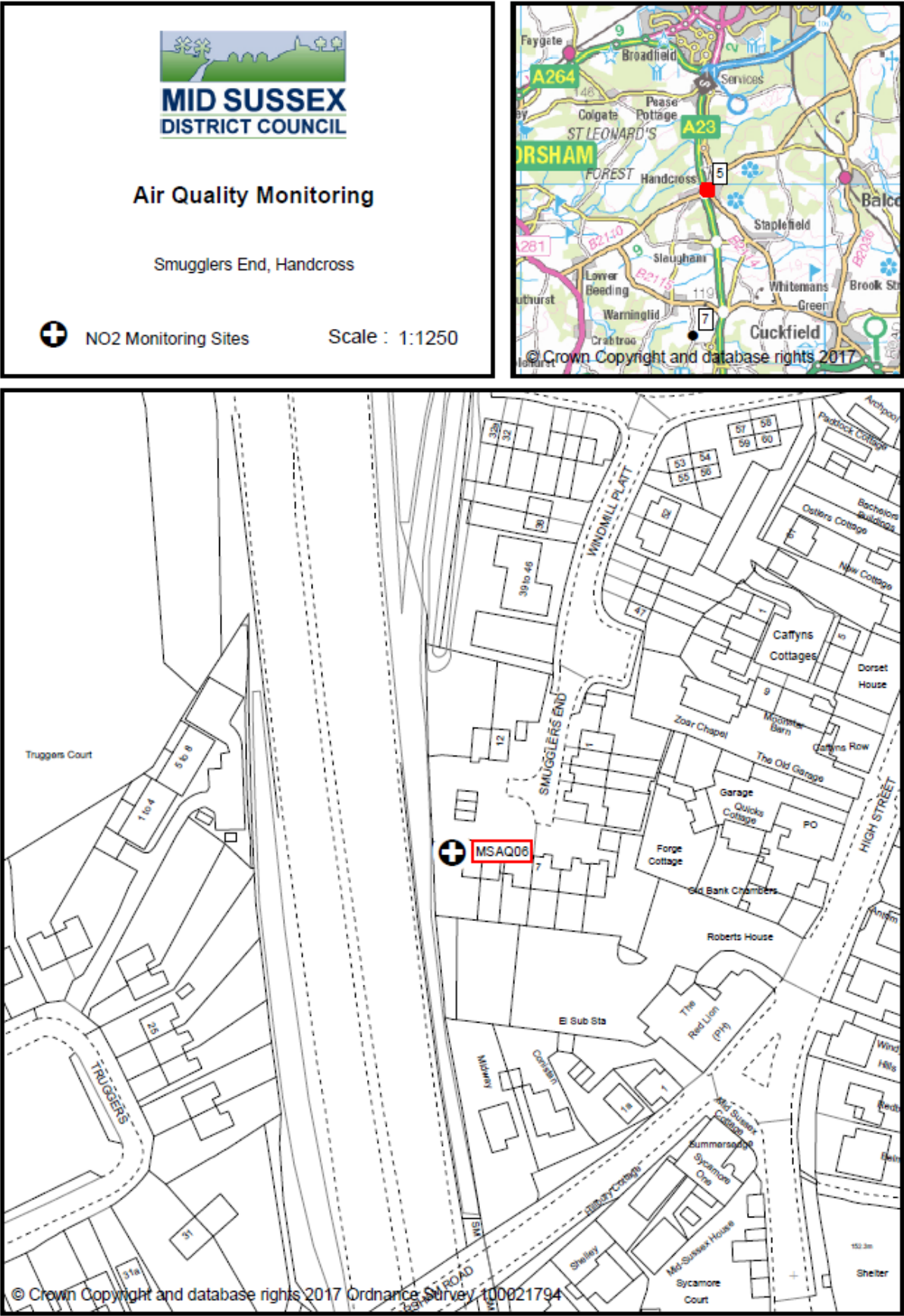


Figure 6 MSAQ7 Crabbet Park, Worth

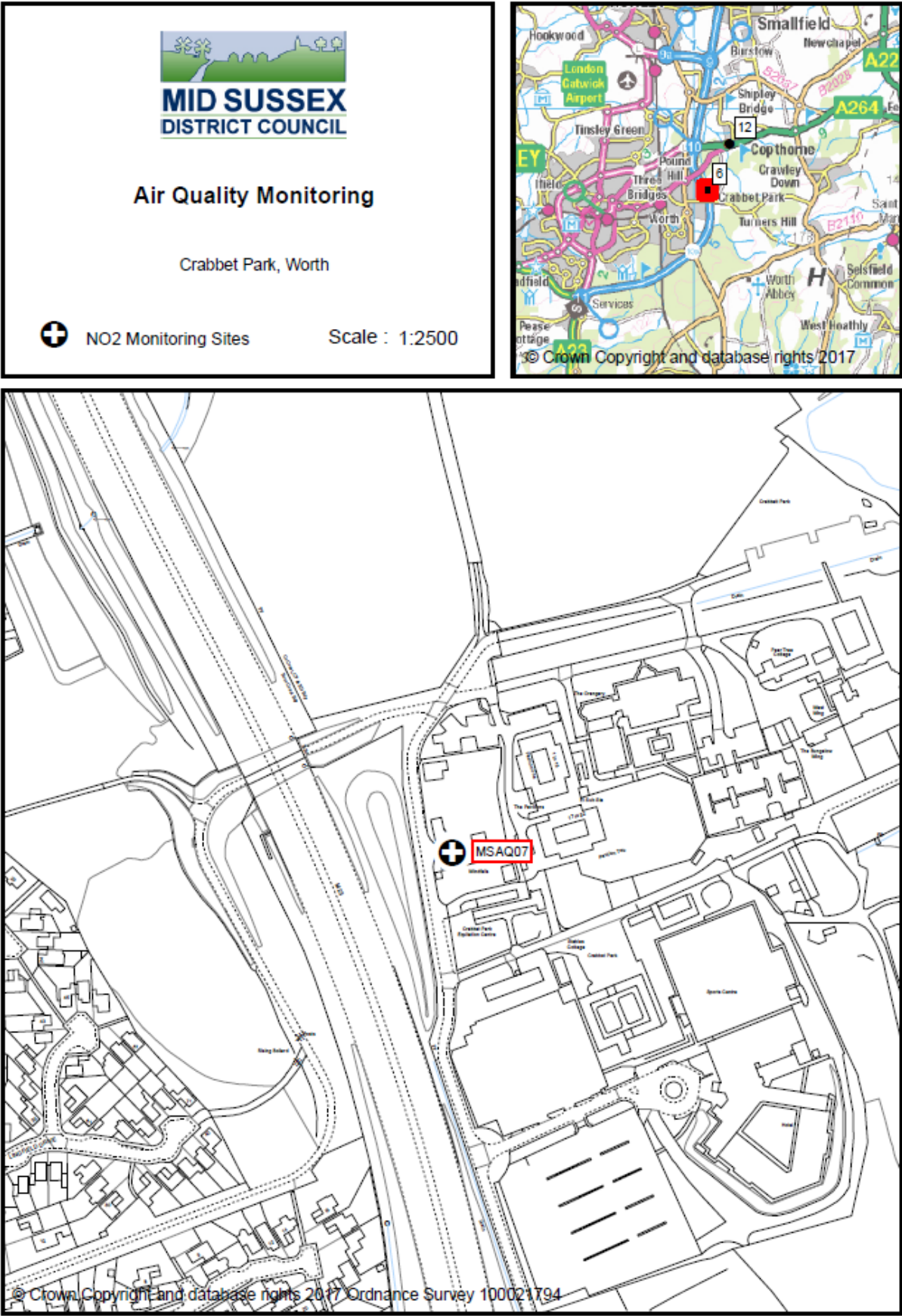


Figure 7 MSAQ9 Water Tower, Colwood Lane, Warninglid

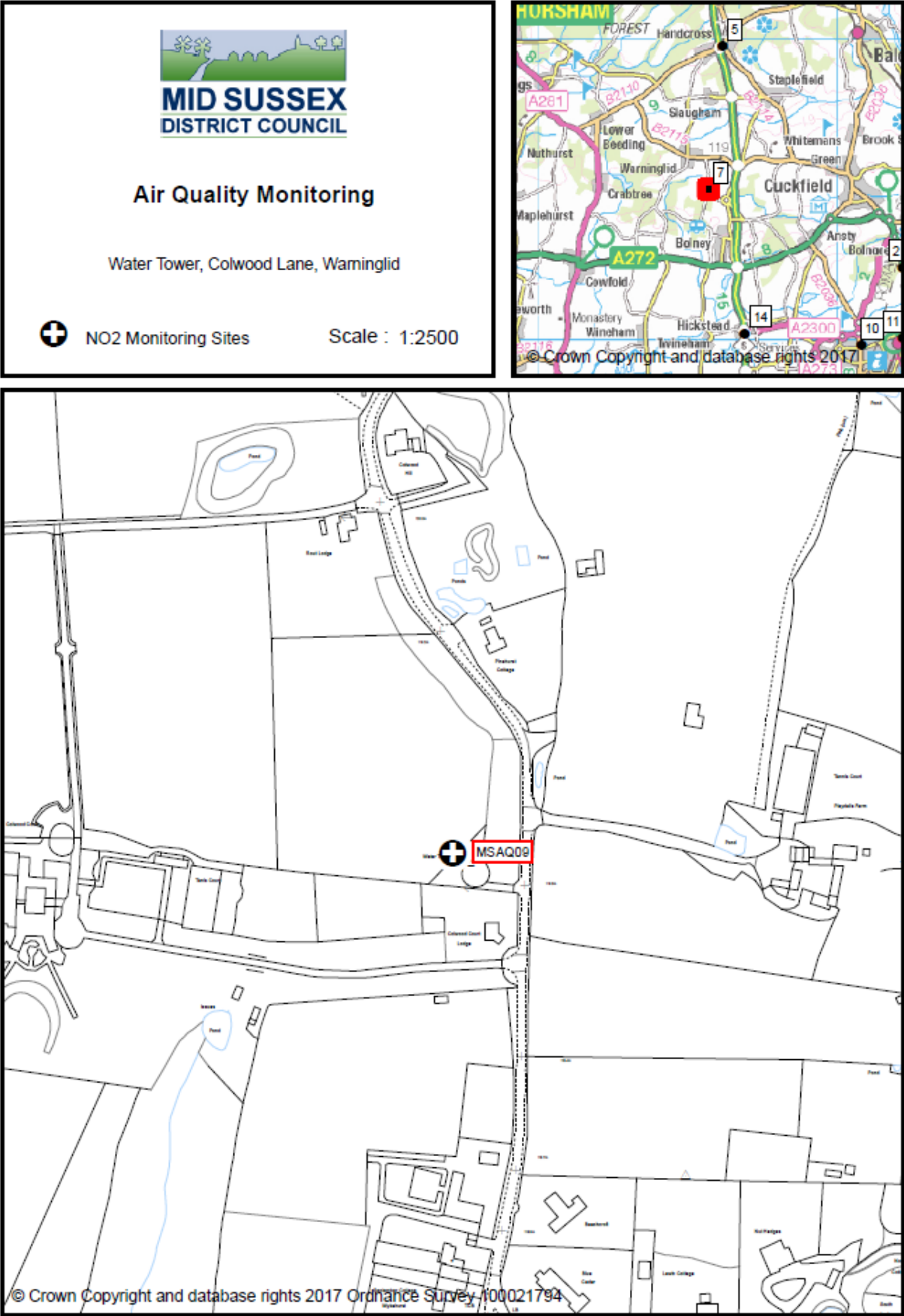


Figure 8 MSAQ10 to MSAQ19 and MSAQ23 and MSAQ24
Stonepound Crossroads, Keymer Road, Hassocks

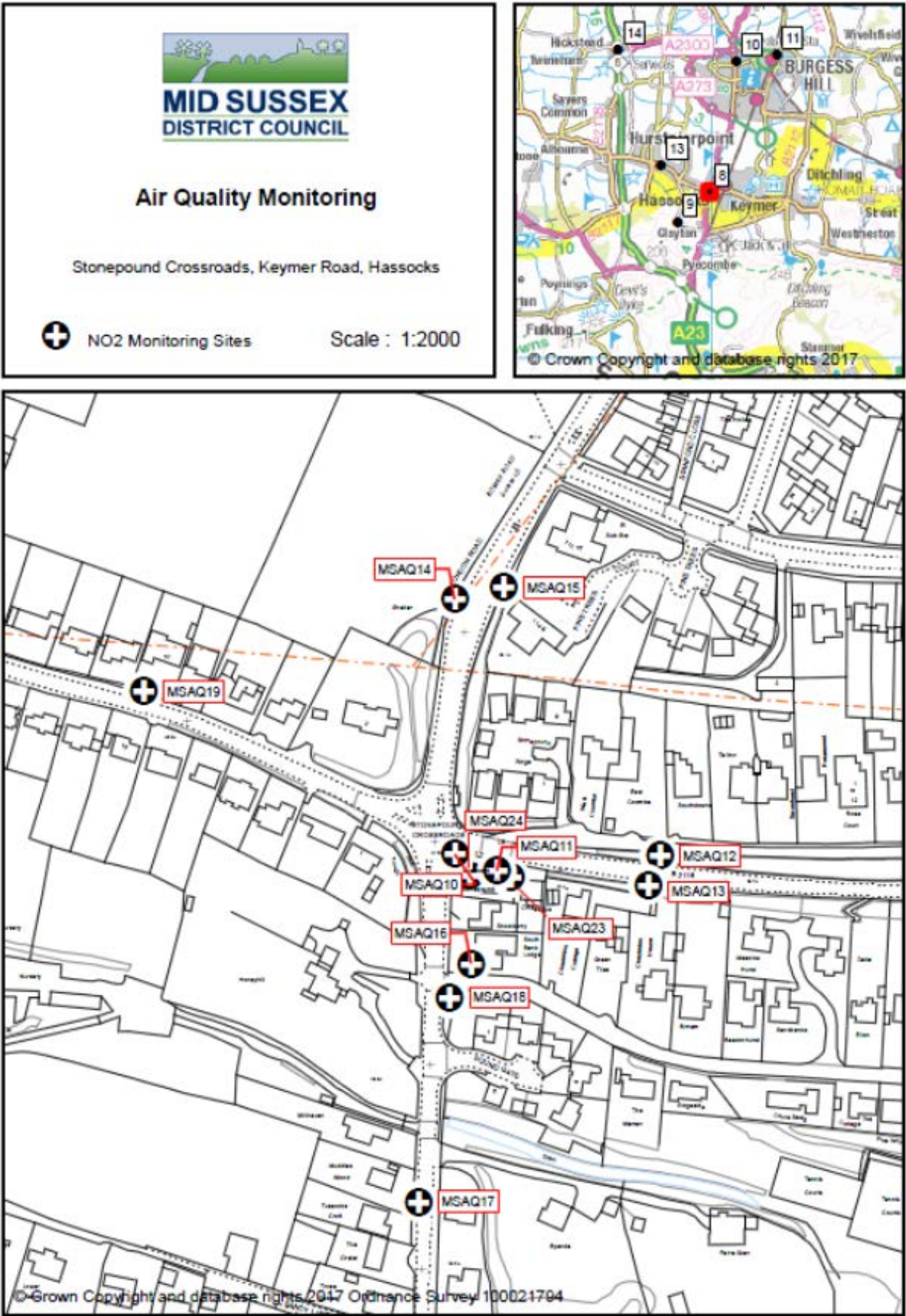


Figure 9 NO₂ Monitoring sites within AQMA Stonepound Crossroads Hassocks

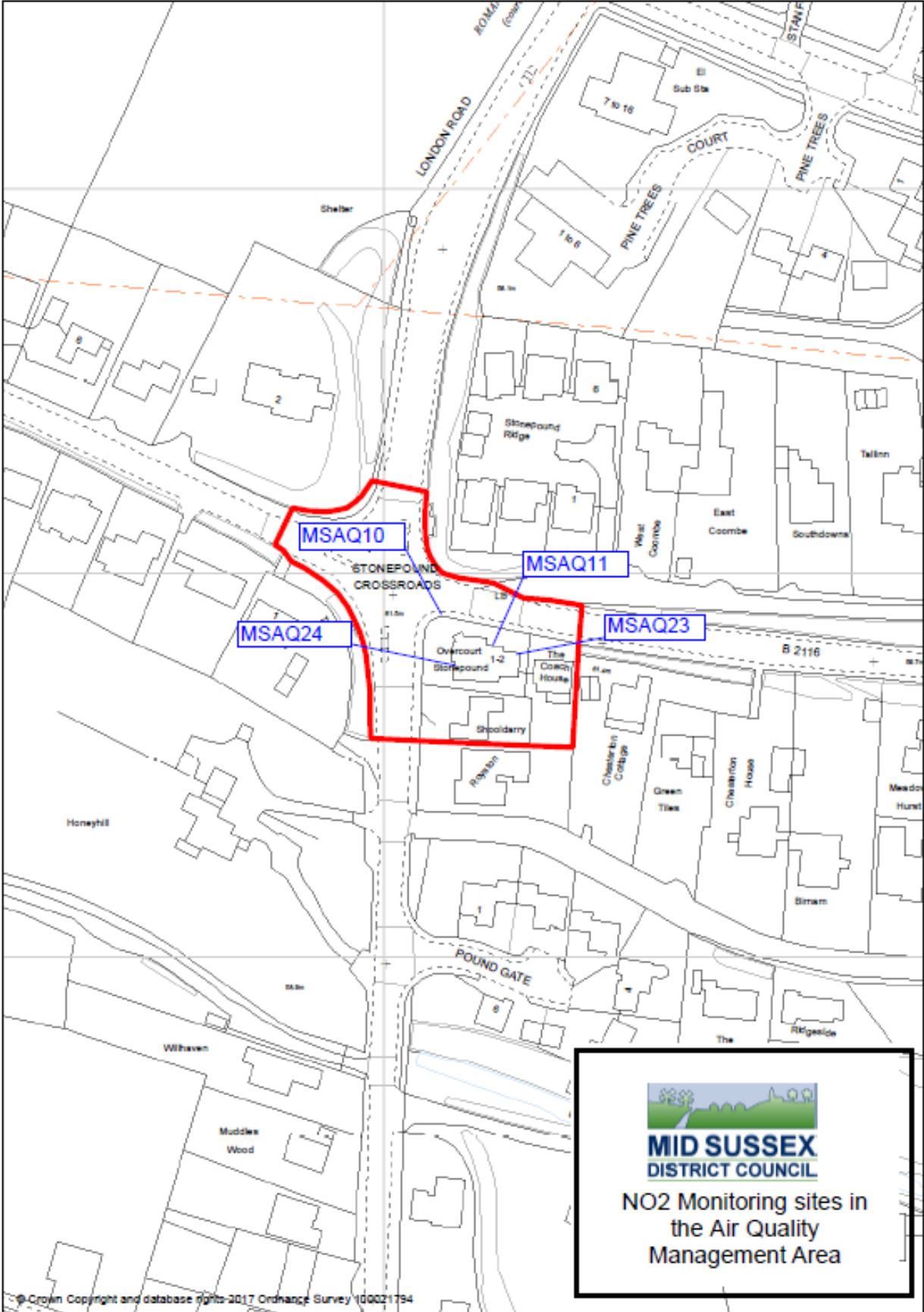


Figure 10 MSAQ20 New Way Lane, Hurstpierpoint

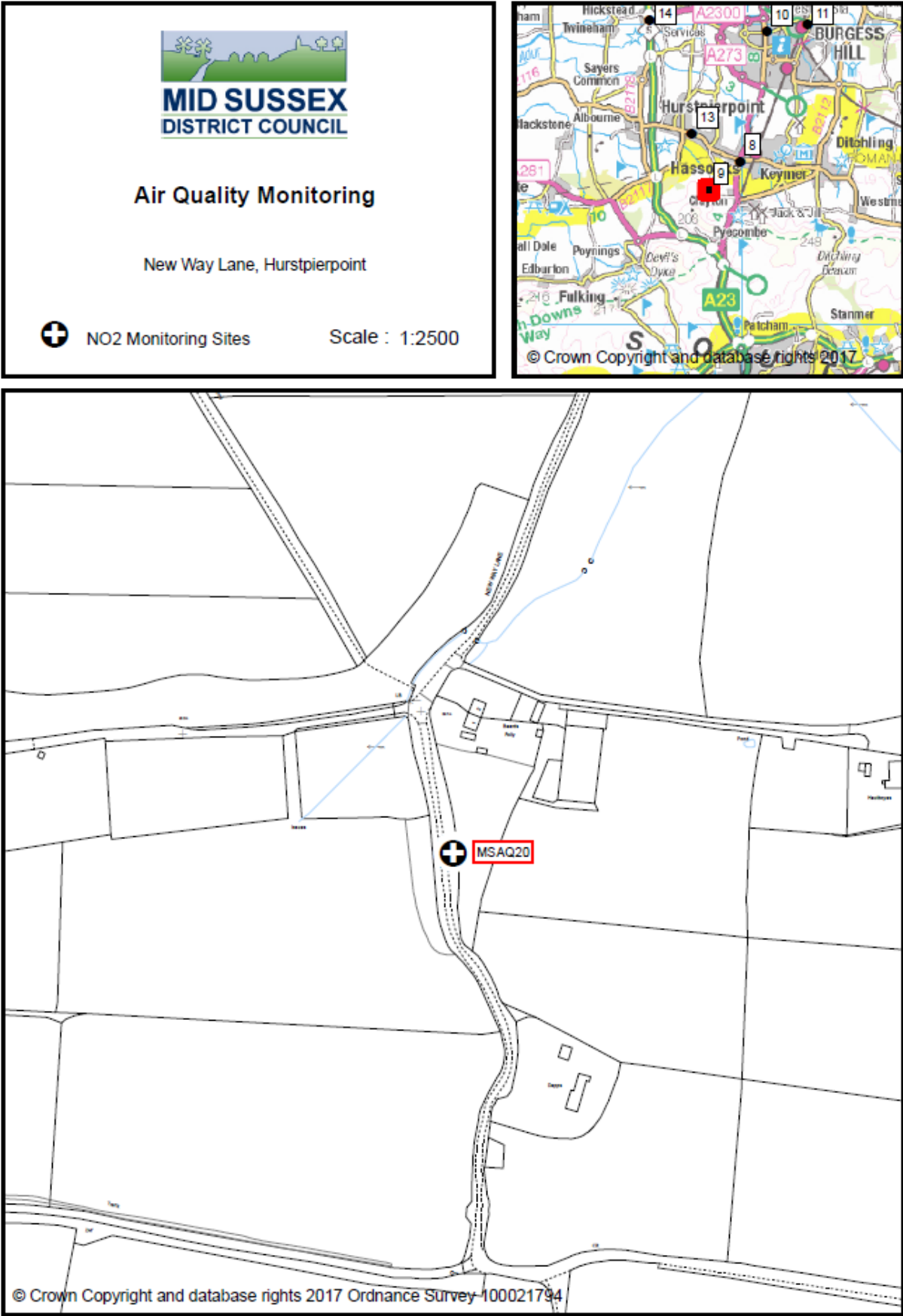


Figure 11 MSAQ21 86-88 London Road, Burgess Hill

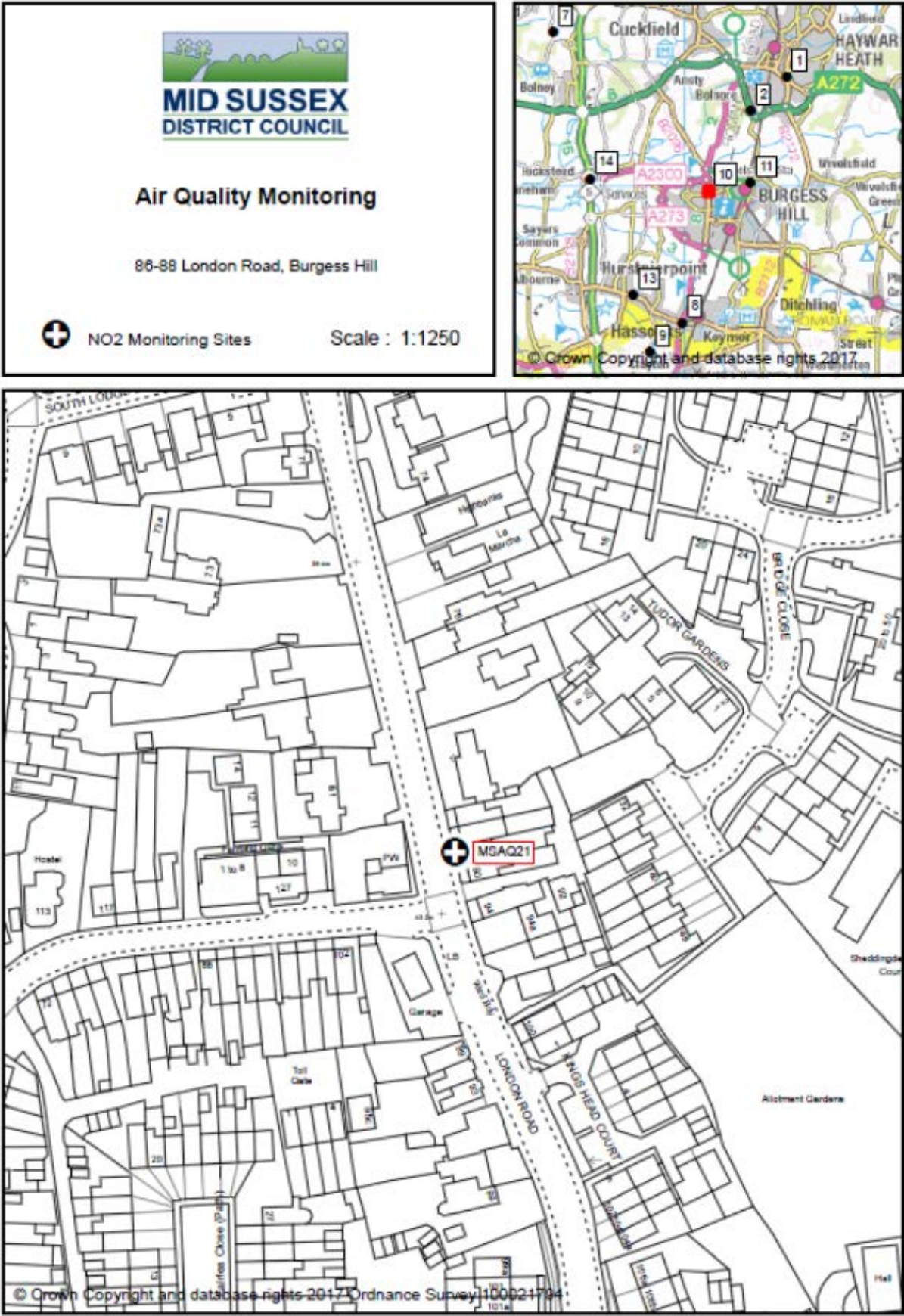


Figure 12 MSAQ22 Leylands Road, Burgess Hill

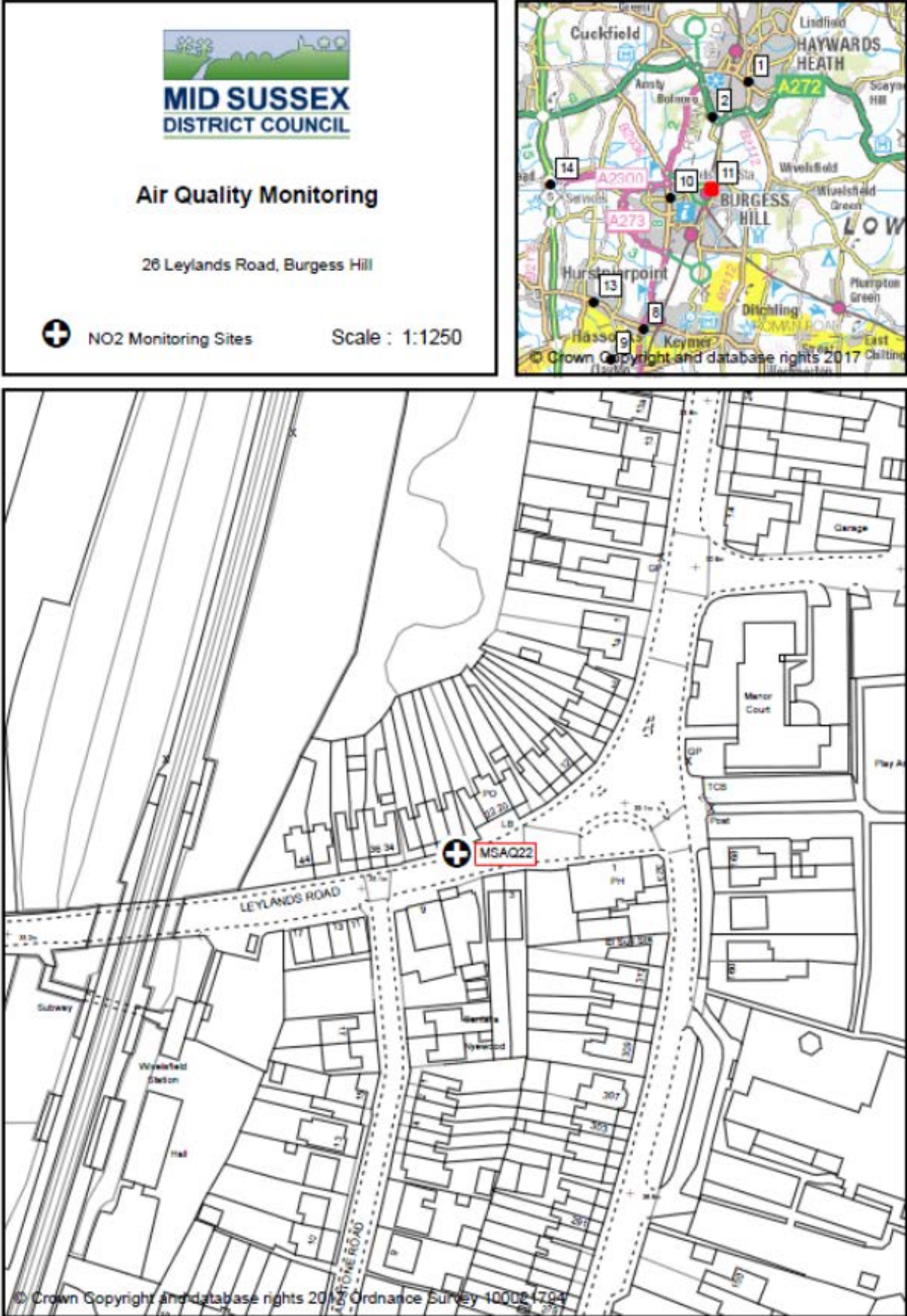


Figure 13 MSAQ25 Erica Way, Copthorne

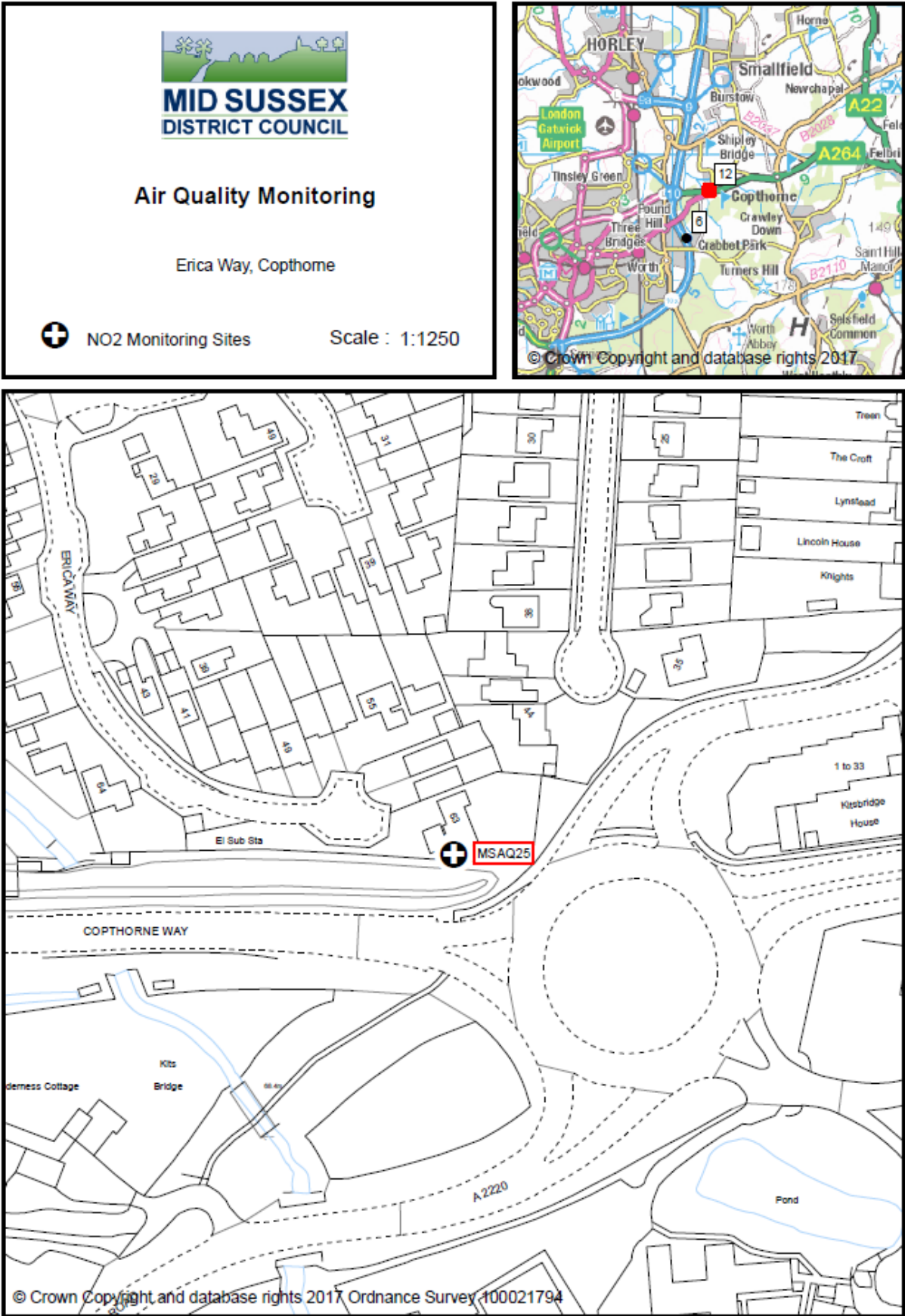


Figure 14 MSAQ26 Lamp Post 14, High Street, Hurstpierpoint

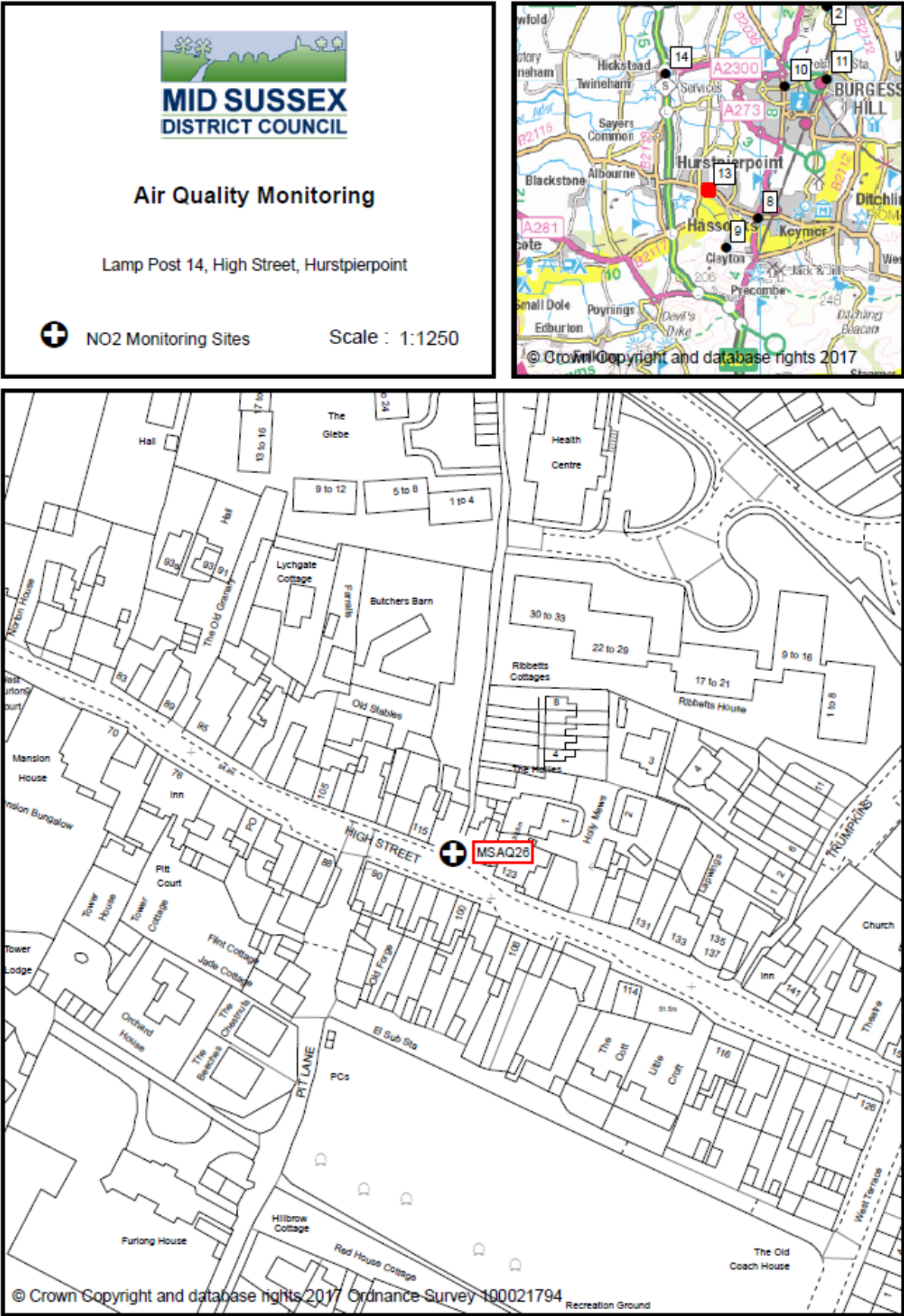


Figure 15 MSAQ27 Telegraph pole, London Road, Hickstead

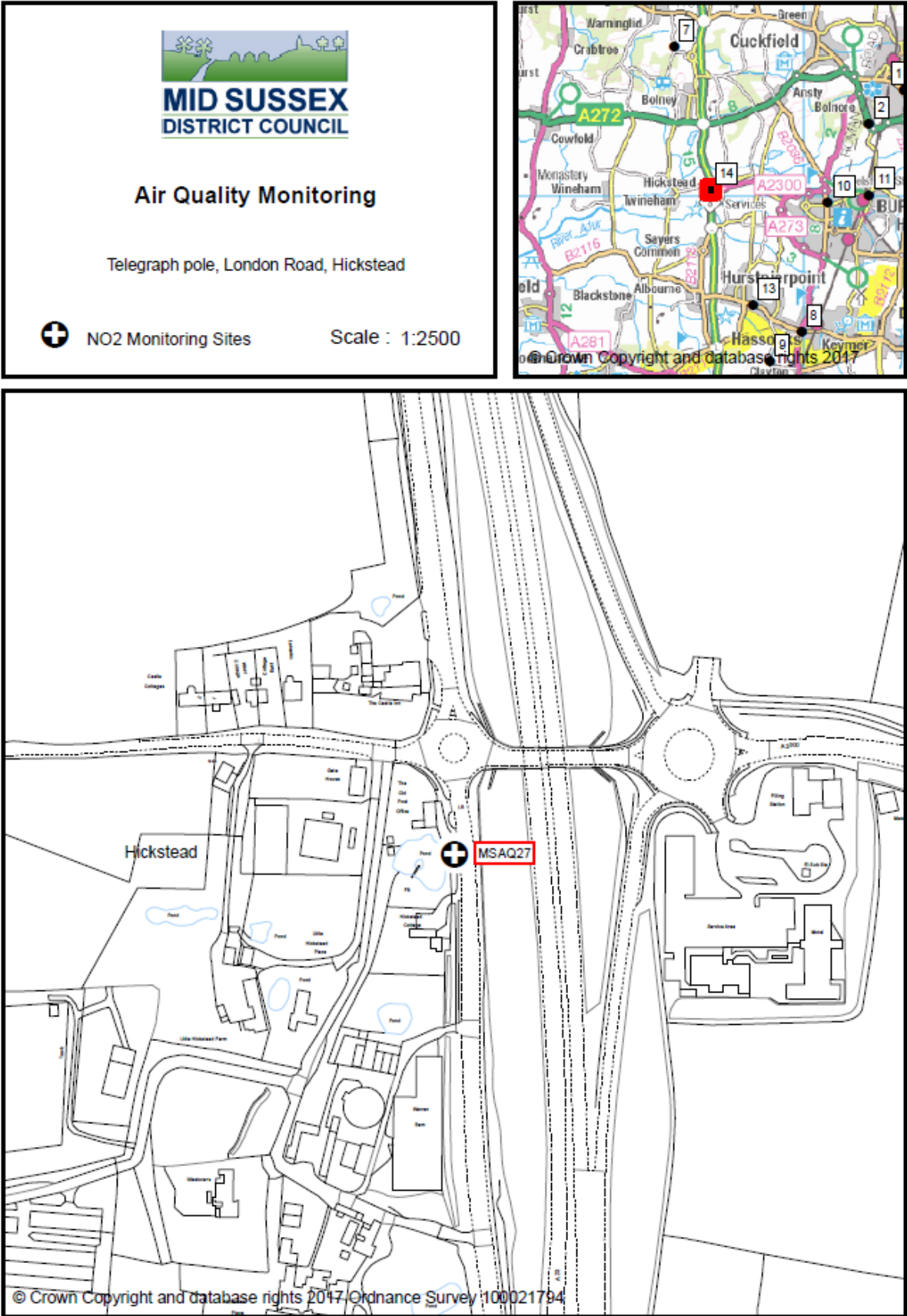
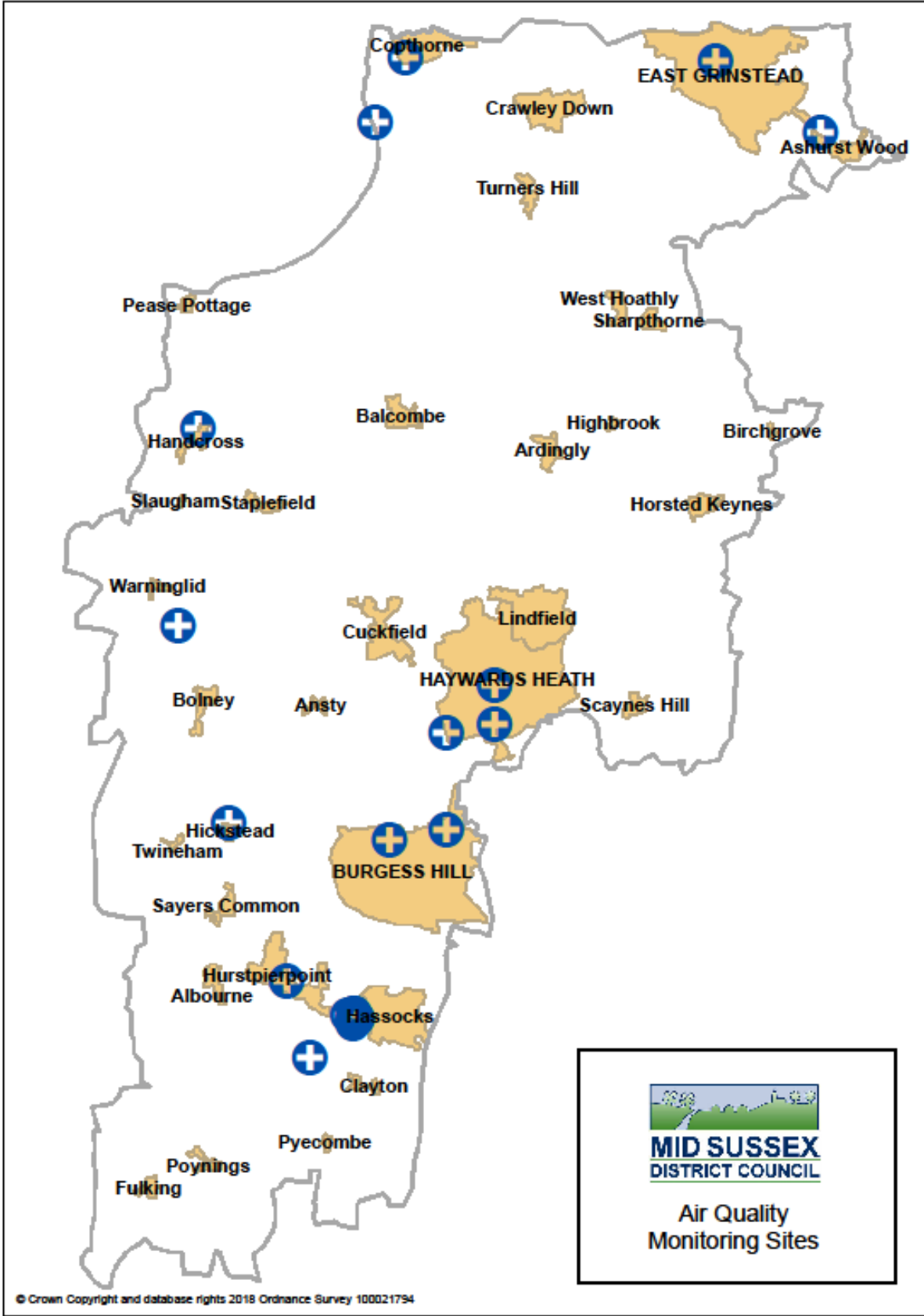


Figure 166 Air Quality Monitoring Sites 2018



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

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

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
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
SO ₂	Sulphur Dioxide

References

1. Mid Sussex District Council (2018), Annual Status Report 2018
by Mid Sussex District Council
<https://www.midsussex.gov.uk/environment/air-quality/>
2. DEFRA (2002) The Air Quality (England) (Amendment) Regulations, HMSO.
3. DEFRA (2003) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum, HMSO.
4. DETR (2000) The Air Quality (England) Regulations, HMSO.
5. DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, HMSO.
6. DEFRA (2015) Local Air Quality Management Policy Guidance, LAQM.PG(16).
7. DEFRA (2015) Local Air Quality Management Technical Guidance, LAQM.TG(16).
8. The Environment Act (1995).
9. The Environmental Protection Act (1990).
10. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006.