Huntingdonshire
DISTRICT COUNCIL

2021 Air Quality Annual Status Report (ASR) for the year 2020

In fulfilment of Part IV of the Environment Act 1995

Local Air Quality Management

Date: June 2021

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Executive Summary: Air Quality in Our Area

The Environment Act 1995 places a duty on Local Authorities to monitor, assess and take action to improve local air quality under the statutory process of Local Air Quality Management (LAQM). The LAQM system places greater emphasis on action planning to improve air quality, as well as requiring the completion of an air quality Annual Status Report (ASR). This report relates to data gathered between 1st January and 31st December 2020 and forms Huntingdonshire District Councils (HDC's) 2021 ASR, providing a review of air quality in the district for the year 2020.

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, the elderly, and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas[1,2].

The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages[3], with a total estimated healthcare cost to the NHS and social care of £157 million in 2017[4].

Air Quality in Huntingdonshire

2020 has not been like any other year. The measures taken to stop the spread of Covid-19 have resulted in a significant reduction in traffic and therefore an improvement in related pollution levels. More information on the impact of Covid is within Appendix F.

It was hoped that we would be able to see what sort of impact the relocation of the A14 had on the NO_2 levels within the Huntingdon AQMA, however the various lockdowns have influenced the results, making it difficult to assess the benefit of relocating the road. The

[1] Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

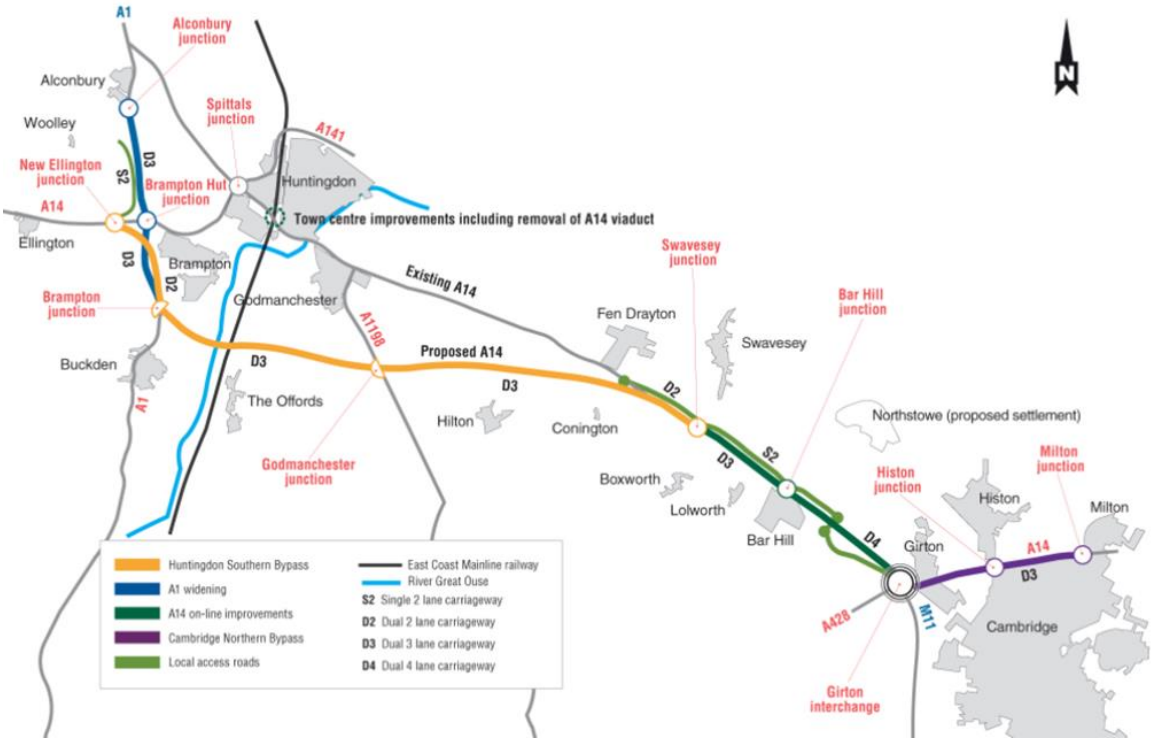
[2] Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

[3] Defra. Air quality appraisal: damage cost guidance, July 2020

[4] Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

Huntingdon southern bypass section of the new A14 opened in December 2019 and although works are still continuing in and around Huntingdon on the old A14 (now A1307), it is likely the relocation has been beneficial. Looking at the results, the most significant reductions from 2019 – 2020 have been in the Huntingdon AQMA.

The following map shows (in yellow) the relocated A14 in relation to Huntingdon. The old A14 (now A1307) is shown as the 'existing A14' on the map below and cuts straight through Huntingdon.



Source: https://assets.highwaysengland.co.uk/roads/road-projects/a14-cambridge-to-huntingdon-improvement/Image+-+A14C2H+proposed+route.jpg

The main air quality issues within Huntingdonshire relate to NO_2 from vehicle emissions, mostly originating from the A14 and to a lesser extent the A1, both of which run through the district. However, local traffic within the market towns also contributes to some elevated levels, compared to the rest of the district.

Huntingdonshire currently has four Air Quality Management Areas (AQMA's).

1. Huntingdon,
2. St Neots,
3. Brampton, and
4. A14 Hemingford to Fenstanton.

These can be viewed on our website at: http://www.huntingdonshire.gov.uk/environmental-issues/noise-nuisance-pollution/air-quality/ and on the Defra website at: https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=131 .

Data collected demonstrates that there were no breaches of any of the Objectives in 2020 at any of the measurement locations.

Diffusion Tubes (non-continuous monitors for Nitrogen Dioxide (NO_2))

Whilst results from previous years have been in line with national trends and shown a predominantly year on year reduction in Nitrogen Dioxide (NO_2), in 2018 – 2019 NO_2 levels within the district plateaued, with most locations experiencing a small increase or decrease. In 2020 all results (with the exception of one) were significantly lower than the 2019 figures. The greatest reductions were seen in Huntingdon, Fenstanton and Godmanchester, all of which benefitted from the relocation of the A14. For example, the most significant decrease was at Pathfinder House in Huntingdon where levels decreased by 15.3µg/m^3, compared to the previous year, closely followed by George Street (Huntingdon 3) with a reduction of 15.1µg/m^3.

One site did have a slight increase on last year's figure, Brampton 5 (Hansell Road, Brampton) had a figure of 13.6µg/m^3 in 2019, rising slightly to 14.9µg/m^3 for 2020, however it looks to be that this was due to one diffusion tube result of 68.8µg/m^3 for the month of July which raised the annual mean. This was included as per TG16. From discussions with the officer who changed the tube it is likely this was due to construction activities occurring in the area and the location being a convenient place for lorries to park whilst waiting to go on site, possibly keeping their engines running for air conditioning etc. Whilst the figure for July was significant, it appears to have been a relatively brief issue, with other months remaining within normal parameters. If the result of 68.8µg/m^3 was excluded the annual mean would have been 11.7µg/m^3.

The data demonstrates that all sites met the NO_2 objective level in 2020, with most results significantly lower than previous years, likely due to relocation of the A14 and government measures to stop the spread of Covid.

Continuous monitors (Analysers for Particulate Matter (PM) and NO_2)

Since the new equipment was installed in 2019, 2020 is the first calendar year we have complete results for. PM_{10}, $PM_{2.5}$ and NO_2 are continuously monitored and results indicate there were no exceedances of any of the air quality objectives in 2020 at this location.

The annual mean PM_{10} figure decreased from 15.74µg/m^3 in 2019 to 14µg/m^3 in 2020, which remains well within the objective level of 40µg/m^3, with no breaches of the 24-hour objective (50µg/m^3). There has been a reduction in $PM_{2.5}$ from 8.67µg/m^3 to 8µg/m^3 and the NO_2 analyser measured an annual mean of 25µg/m^3, and no 1-hour means above 200µg/m^3. With the installation of the new equipment and increased certainty in results, HDC have taken part in the diffusion tube co-location study and produced a localised bias adjustment figure. This has not been completed over the last few years due to concerns over the reliability of the data from the monitor. More information regarding this can be found in Appendix C.

Residential Development:

As a growing district Huntingdonshire has many large-scale long-term developments, both under construction, as well as proposed within the planning process. Areas around St Neots (such as Loves Farm/Wintringham Park and Loves Farm East) and Alconbury Weald continue to undergo large scale development; other sites include locations at Needingworth, Godmanchester, Brampton and Buckden. Most larger scale proposals are accompanied by an Air Quality Impact Assessment to assess the impact of the proposed development; construction impacts and mitigation; and the impact of the local air quality on the development itself. The requirements for an air quality assessment are outlined within Policy LP 36 of the HDC Local Plan.

Industrial Development:

No significant pollution sources have been identified as commencing in 2020. One proposed crematorium has recently applied for an Environmental Permit and is looking to commence operating this year, but that will be covered in the ASR for 2021. The Small Waste Incineration Plant near Colne remains under construction and commissioning and as such is not yet operational. This falls under the Industrial Emissions Directive and has an Environmental Permit.

Partnership working:

We continue to work with the County Council in minimising impacts from A14 upgrading works around Huntingdon, and when all works are complete and traffic has settled after Covid measures, we will be able to further assess and flag up any issues that need consideration. The County Council continue to support HDC with provision of funding from the County Council's air quality monitoring budget to assist with monitoring provision around the district.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades and will continue to improve due to national policy decisions, there are some areas where local action is needed to improve air quality further.

The 2019 Clean Air Strategy[5] sets out the case for action, with goals even more ambitious than EU requirements to reduce exposure to harmful pollutants. The Road to Zero[6] sets out the approach to reduce exhaust emissions from road transport through a number of mechanisms; this is extremely important given that the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Monitoring:

HDC continues to take steps to improve the monitoring provision within the district and following the acquisition of the new continuous automatic air quality monitors to replace the unreliable units located within the Huntingdon Air Quality Management Area in 2019, in 2020 we again managed to secure funding from Cambridgeshire County Council's Air Quality Monitoring Fund to assist us in purchasing a mobile air quality unit, the Aeroqual AQY. This small mobile unit can be sited on a lamp post and provide high quality data for NO_2 and particulates and will assist in providing a more accurate picture of the air quality around the district.

[5] Defra. Clean Air Strategy, 2019

[6] DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

Planning:

The Environmental Protection Team continue to provide advice to the Planning Team regarding proposed developments in an attempt to minimise air pollution impacts, even if there is no risk that air quality objectives will be breached. Therefore, even if the effect is judged to be insignificant, consideration of the application of good design and good practice measures, including electric vehicle rapid charge points is advised. Construction Environmental Management Plans are also advised for certain developments in order to control and minimise the impact of pollution, especially particulate matter, during construction activities. Following the likely source of the elevated diffusion tube result, our advice will include requesting contractors ensure all drivers are advised not to idle no matter where they are – not just on/adjacent to the site.

Clean Air Day:

During 2020 HDC also participated in the National Clean Air Day public awareness campaign on 8th October 2020, slightly delayed due to the Covid pandemic.

Tweets:

HDC provided information on our intranet (for staff), our website's main page (for the public), and we tweeted information and advice to our followers throughout the day.

A14 upgrade:

The re-routing of the A14 has been mostly completed. The new section of road which takes the heavy traffic away from Huntingdon opened at the end of 2019 and the part of the A14 in close proximity to large residential areas in Huntingdon closed. It was hoped the impact of this relocation on the NO_2 and PM_{10} levels within the AQMA and elsewhere would be apparent, however the additional impact of Covid restrictions has made apportionment difficult at the current time. Road works associated with the development continue in Huntingdon, including removal of the viaduct above the rail line. Once works are complete, and there is less disruption on traffic, we may gain a better understanding of the reduction achieved by relocating the A14.

A428 upgrade:

A new 10-mile duel carriageway and various junction improvements are proposed on the A428 between the Black Cat roundabout and Caxton Gibbet roundabout. This will improve journeys between Milton Keynes and Cambridge including the section which runs south of St Neots and directly affects traffic flows within St Neots.

Highways England submitted their Development Consent Order (DCO) on 26th February 2021 and this will be discussed further in next year's ASR. In the meantime further information can be seen at: https://highwaysengland.co.uk/a428-black-cat-to-caxton-gibbet-home/ . HDC will continue to liaise with Highways England on assessing the impact of the scheme on St Neots and other surrounding areas.

General:

Huntingdonshire District Council provides advice to members of the public regarding sustainability and energy saving measures and is working hard to reduce its own impact by improving energy efficiency of council owned buildings and continuing to support working from home opportunities; helping to reduce vehicle usage. We are also continuing to investigate and pursue measures that will help to improve air quality and following a survey regarding electric vehicles, HDC are installing more electric car chargers in the district and have invested in an electric van. We continue to investigate and consider more sustainable transport options for the market towns.

Conclusions and Priorities

Overall, there has been a decrease in PM_{10} and $PM_{2.5}$ and a significant decrease in NO_2 within the district compared with 2019. The results indicate that within Huntingdonshire there was widespread compliance with the air quality objectives in 2020.

Revocation is still proposed for the St Neots, Fenstanton and Brampton AQMA's, subject to committee approval. Due to changes in priorities for 2020 there has been a further delay in management agreement of the draft report and seeking committee approval for revocation of the AQMA's at St Neots, Fenstanton and Brampton, leaving Huntingdon the only AQMA remaining, however HDC are committed to ensuring the AQMA's are fully considered in line with the correct protocol. Whilst the figures currently indicate that Objectives are being met within the Huntingdon AQMA it is considered the impacts of Covid restrictions on traffic in 2020 means the data is unlikely to be representative of long-term trends in pollutant concentrations and therefore we are not currently proposing to revoke the Huntingdon AQMA. Current guidance within TG16 states that local authorities should consider measurements carried out over a period of three to five consecutive years when deliberating the revocation of an AQMA, as well as national trends in emissions etc. Therefore, further information is required to assess this AQMA.

As previously highlighted, the Air Quality Action Plan (AQAP) is out of date and it is considered the most appropriate time for completing a new AQAP would be following the revocation of the 3 AQMA's (if agreed) and completion of the A14 works to enable assessment of the remaining AQMA and ensure a more focussed and appropriate action plan to be produced, if required.

The main priorities for 2021 for HDC in relation to air quality are to:

- Install the Aeroqual AQY mobile unit
- Update the review into the status of the AQMA's that continue to show monitoring compliance, take this to committee for consideration and take appropriate action following their decision.
- Assess the impacts of the relocation of the A14 and if this will require changes to the Huntingdon AQMA – this may take a few years as works continue within Huntingdon so an accurate long-term impact will take some time.
- Once the future of 3 of the AQMA's is known, completion of a new AQAP.

- Continue to maintain partnership working with HDC planning department and improve partnership working with the County Council Highways team.
- Continue to ensure construction impacts are considered and mitigation provided for appropriate development proposals; and
- Consider what further measures the Council can take to improve its own emissions.

These are discussed further in Section 2.2 below.

Challenges:

Covid-19 has presented a challenge in normal operations, council priorities and evaluation of results.

The ongoing challenge remains to balance economic growth within Huntingdonshire, whilst ensuring compliance with the air quality objectives.

Local Engagement and How to get Involved

Some requests for information regarding air quality within the district were received in 2020, members of the public and action groups are increasingly recognising the impacts of poor air quality and querying pollution levels within their area. Whilst the diffusion tubes provide an indication of levels, it is hoped the AQY mobile monitor can assist in helping identify any issues and provide detail to aid improvements.

Members of the public can help to improve local air quality by reducing the number of car journeys undertaken, car sharing (taking appropriate Covid precautions), using public transport, walking or cycling wherever possible (active travel), switching off car engines when stationary, purchasing energy efficient goods, improving energy efficiency at home and choosing to purchase a low emission car. Public transport information for Cambridgeshire can be viewed on the County Council website at: https://www.cambridgeshire.gov.uk/residents/travel-roads-and-parking/buses

The use of wood burning stoves and open fires also contributes to air pollution and there are a number of steps members of the public who use these can take to reduce environmental and health impacts. More information can be found on our website here:

http://www.huntingdonshire.gov.uk/environmental-issues/noise-nuisance-pollution/air-quality/wood-burning-stoves/ .

HDC provide further information on our website under ‘Sustainability and greener living’ http://www.huntingdonshire.gov.uk/ . The energy savings trust can also provide further advice at http://www.energysavingtrust.org.uk/ . HDC support National Clean Air Day, another valuable source of information regarding air quality advice and how to minimise exposure is the www.cleanairday.org.uk website, which also provides information regarding internal air quality.

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1 Local Air Quality Management

This report provides an overview of air quality in Huntingdonshire 2020. 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 Huntingdonshire District Council (HDC) to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 12 months setting out measures it intends to put in place in pursuit of compliance with the objectives.

A summary of AQMAs declared by Huntingdonshire District Council can be found in Table 2.1. The table presents a description of the four AQMAs that are currently designated within Huntingdonshire. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries is available online at Defra's website: https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=131.The air quality objective pertinent to the current AQMA designations is NO_2 annual mean.

Due to continued compliance, HDC propose to revoke St Neots, Brampton, and Hemingford to Fenstanton AQMA's (see monitoring section).

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Name and Date of AQAP Publication	Web Link to AQAP
Huntingdonshire District Council Air Quality Management Area Order No. 1 (Huntingdon: NO_2)	16th November 2005 - amended 29th October 2007	NO2 Annual Mean	An area encompassing approximately 2831 domestic properties affected by the A14, A141, B1044, B1514 and Huntingdon Inner Ring Road.	YES	50.2	None (24.8ug/m3)	Cambridgeshire Joint Air Quality Action Plan (2009)	www.huntingdonshire.gov.uk/media/3423/2009-joint-air-quality-action-plan.pdf
Huntingdonshire District Council Air Quality Management Area Order No. 2 (St Neots: NO_2)	16th November 2005 - amended 29th October 2007	NO2 Annual Mean	An area encompassing approximately 115 domestic properties affected by local traffic in the town centre.	NO	45.2	None (18.6ug/m3)	Cambridgeshire Joint Air Quality Action Plan (2009)	www.huntingdonshire.gov.uk/media/3423/2009-joint-air-quality-action-plan.pdf
Huntingdonshire District Council Air Quality Management Area Order No. 3 (Brampton)	1st September 2006 - amended 29th October 2007	NO2 Annual Mean	An area encompassing approximately 82 domestic properties affected by the A14.	YES	37.2	None (13.3ug/m3)	Cambridgeshire Joint Air Quality Action Plan (2009)	www.huntingdonshire.gov.uk/media/3423/2009-joint-air-quality-action-plan.pdf
Huntingdonshire District Council Air Quality Management Area Order No. 4 (Hemingford to Fenstanton: NO_2)	1st September 2006	NO2 Annual Mean	An area encompassing approximately 62 domestic properties affected by the A14.	YES	46.2	None (11.0ug/m3)	Cambridgeshire Joint Air Quality Action Plan (2009)	www.huntingdonshire.gov.uk/media/3423/2009-joint-air-quality-action-plan.pdf

☒ **Huntingdonshire District Council confirm the information on UK-Air regarding their AQMAs is up to date.**

☒ **Huntingdonshire District Council confirm that all current AQAPs have been submitted to Defra.**

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

Defra's appraisal of last year's ASR concluded the following:

DEFRA conclusions	Huntingdonshire District Council response
Robust and accurate QA/QC procedures were applied. Calculations for bias adjustment, annualisation and distance-correction factors were outlined in detail.	This year's ASR has been completed in line with the new procedures for diffusion tube data. QA/QC techniques remain the same as last year. The new automatic monitors have improved certainty, so a local bias figure has been gained and utilised for 2020.
The Council has included discussion and review of its AQMAs and monitoring strategy, informed due to the extensive monitoring network. This demonstrates the Councils proactive and dedicated approach to improving air quality across the area.	Diffusion tube sites are programmed for reviewed in 2022. A New AQY monitor has been purchased to assist in monitoring throughout the district.
Comments from last year's ASR have been mentioned and addressed. This is welcomed, and we encourage this to continue in future ASRs.	Completed.
The AQAP will be updated once a decision on the revocation of the AQMAs has been made. The process of revocation of the following AQMAs can now be looked at: St Neots, Fenstanton and Brampton	Agreed and in the process of being implemented.
The Public Health Outcomes Frameworks was mentioned, and the council have considered referring specifically to indicator D01, fraction of mortality attributable to particulate air pollution. This is encouraged in future reports.	Completed – please see section 2.3.

Council have provided a clear map of the diffusion tube monitoring network; trends are displays and discussed in the report, this is welcomed.	Completed – please see section 3.2, figures A.1 – A.5 and D.1, and Appendix D.
Overall, the report is detailed, concise and satisfies the criteria of relevant standards. The Council should continue their good and thorough work.	Comment welcomed and noted.

As well as the actions discussed above in the Executive Summary section, such as supporting promotional campaigns and purchasing additional air quality monitoring equipment, HDC have taken forward a number of direct measures during the current reporting year of 2020 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2.

As stated in last year's ASR, it should be noted that these measures originate from the Cambridgeshire Air Quality Action Plan (2009) and hence have remained the same for several years. Huntingdonshire District Council are in the process of reviewing the St Neots, Brampton and Fenstanton AQMA's, with a view to revocation. Once the A14 works have been fully completed and data has been gained during normal traffic flows the AQMA in Huntingdon will be reviewed. This may take a few years to gain sufficient data, due to continued works in Huntingdon on the A1307 (old A14) and the impact of Covid, so at this time it is intended that a new Action Plan, with updated, more appropriate and targeted measures will be written following the outcome of the decision on the revocation of the three AQMAs, in order to reduce further delay.

Six measures are included within Table 2.2, with the type of measure and the progress HDC have made during the reporting year of 2020 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2. More detail on these measures can be found in the Action Plan at www.huntingdonshire.gov.uk/media/3423/2009-joint-air-quality-action-plan.pdf .

Key completed measures are:

Measurement 1: The A14 upgrade is mostly complete with minor works continuing within Huntingdon on the now A1307 and ongoing removal of the viaduct. The majority of traffic has been relocated onto the new A14 at greater distance from Huntingdon.

Measurement 2: Implementation of air quality policies in the local plan is currently on going. The Local Plan for Huntingdonshire to the year 2036 was adopted in 2019 and includes a policy on air quality with a requirement for a low emissions strategy in certain circumstances. The plan also provides advice on the provision of electric vehicles and it is hoped this will encourage the use of electrically powered vehicles, in line with National Planning Policy.

In an attempt to ensure air quality is fully considered, officers continue to advise the Local Planning Authority, air quality consultants and developers of current public health advice to minimise the health impacts of air quality even if there is no risk that air quality standards will be breached. Therefore, even if the effect is judged to be insignificant, consideration should be given to the application of good design and good practice measures, including electric vehicle rapid charge points.

Measurement 3: Development of an effective freight partnership. Now that the A14 has been moved away from the main residential areas it is not expected that freight will cause a significant issue within Huntingdonshire, therefore it is intended that no further action will be taken regarding this measure at this time. This will be reassessed in the next AQAP.

Measurement 4: Inclusion of Huntingdonshire in the Quality Bus Partnership (QBP). Cambridgeshire County Council has not extended the QBP to outside Cambridge City, and currently has no plan to do so, therefore no further action will be taken regarding this measure at this time. This will be reassessed in the next AQAP.

Measurement 5: The guided bus route is complete and operational.

Measurement 6: Smart traffic lights at St Neots have been installed and are operational.

Huntingdonshire District Council's priorities for the coming year are:

- The proposed revocation of the St Neots, Brampton and Fenstanton AQMAs (AQMA 2, 3 & 4). Air quality standards and objectives are being achieved and are likely to continue to be. A draft report reviewing the AQMA's is currently with management and demonstrate strong compliance with the national objectives. The Council has therefore entered the process of revocation and is awaiting management and ultimately committee approval, prior to the revocation orders being made. Defra have expressed their support of this proposal in previous ASR appraisal reports.

  The revocation of AQMA 2 was delayed so all three could be considered together.

The detailed modelling assessment of NO_2 concentrations for St Neots can be viewed on our website at: http://www.huntingdonshire.gov.uk/media/3245/st-neots-air-quality-modelling-report.pdf . Due to the size of the report it is not included in the Appendices.

- Use the newly purchased Aeroqual AQY mobile air quality monitoring device to gain information on pollution levels in areas of concern around the district.
- Continue to maintain partnership working with Planning and encourage more opportunities for collaboration with Highways.
- Continue to ensure construction impacts are considered and mitigation utilised for appropriate development proposals (including vehicle idling); and
- Continue to consider what further measures the Council can take to improve its own emissions and work towards improvements.

It should also be noted at a regional level, Cambridgeshire County Council's newly elected members have recognised the impacts of poor air quality and have identified air quality as a key priority due to the importance of clean air for public health, resolving to increase air quality monitoring across Cambridgeshire, including in villages as well as in towns, cities, and along major trunk roads. In addition to this there is a commitment to reviewing the County Council's Sustainability Strategy, with the aim of moving forward the Net Zero target for Cambridgeshire County Council towards 2030. All spending and investment decisions will be made in the context of meeting the Net Zero strategy, and social and environmental criteria will be given equal weight to financial criteria in all contracting.

Whilst some of the formal six measures from within the AQAP are ongoing such as measures 1 and 2, none remain outstanding as currently measures 3 and 4 are not intended to be continued. Progress on two of last year's priorities (revocation and partnership working) has however been slower than expected, mainly due to the Covid pandemic and resulting changes in operational commitments and priorities, as well as different ways of working. Huntingdonshire District Council anticipates these issues are likely to also be the principal challenges and barriers to implementation this year.

Huntingdonshire District Council anticipates that the measures stated above and in Table 2.2 will achieve compliance in AQMA 1 Huntingdon, and continued compliance in AQMA 2 St Neots, AQMA 3 Brampton and AQMA 4 Hemingford to Fenstanton.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	Category	Classification	Year Measure Introduced	Estimated / Actual Completion Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Re-routing of A14 away from settlements	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2009	2020	Highways England	Highways England	NO	Funded		Completed	AQMA's 1, 3 & 4 should meet requirements	Monitoring should indicate a reduction when relocation of road completed	A14 has been relocated, some minor works still being completed around Huntingdon.	Lengthy Timescale but expected to improve all AQMA's (after revocation of St Neots)
2	Implementation of air quality policies in the local plan.	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2009	Ongoing	Huntingdonshire District Council	Huntingdonshire District Council	NO	Funded		Implementation	All	N/A	Included within the HDC Local Plan to 2036 Implementation on-going	Highlighting AQ aspects and measures for reduction is ongoing
3	Development of an effective freight partnership	Freight and Delivery Management	Other	2009	Unknown	Not currently progressing	Not currently progressing	NO	Not Funded		Aborted	All	N/A	None	Now the A14 improvement has been completed and Highways England have applied for improvements on the A428, it is unknown if an effective freight partnership would have any significant effect. This will be re-evaluated once changes have been monitored.
4	Inclusion of Huntingdonshire in the Quality Bus Partnership	Alternatives to private vehicle use	Other	2009	None	Cambridgeshire County Council	Cambridgeshire County Council	NO	Not Funded		Aborted	All	N/A	None	At present CCC do not consider that it is feasible to run the QBP outside of the city of Cambridge. This is something we will continue to consider.
5	Completion and opening of Cambridgeshire Guided Busway	Transport Planning and Infrastructure	Bus route improvements	2009	Completed	Cambridgeshire County Council	Cambridgeshire County Council	NO	Funded		Completed	All	Unknown	Completed	The guided busway was opened in August 2011 from Cambridge Huntingdon and extended to Peterborough in July 2012.
6	Change to traffic-light system in St Neots High street as specified in the St Neots Markets Town Strategy	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2009	Completed	Cambridgeshire County Council	Cambridgeshire County Council	NO	Funded		Completed	Reduction in AQMA 2 St Neots	AQ monitoring indicates a reduction	Completed	Works completed in 2013. Modelling undertaken in 2017 demonstrates AQ limits are being met and HDC are in the process of revoking the AQMA. See Section 2.2

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.

Due to its extremely small size, $PM_{2.5}$ can travel for long distances in the air and it is estimated that as much as up to 50% of the levels found in any given area can be from sources outside a local authority's boundary[7]. Nevertheless, this means that the contribution of local sources to total $PM_{2.5}$ levels is significant (typically 50% or more), and therefore Defra consider local actions to reduce $PM_{2.5}$ emissions will have a significant beneficial impact with regard to overall $PM_{2.5}$ concentrations.

$PM_{2.5}$ has been monitored in Huntingdonshire at Pathfinder House since 2014 and has indicated a general downward trend over the years. Due to operational issues with the analyser increasing uncertainty in data, the equipment was replaced in 2019. 2020 is therefore the first full calendar years' worth of results with the new equipment and the data demonstrates a slight fall in $PM_{2.5}$ from 8.67µg/m^3 to 8µg/m^3. Table A.7 and Figure A.4 in Appendix A demonstrate the measured annual mean concentration of $PM_{2.5}$ in Huntingdonshire has been steadily reducing. This reduction is not as significant as the one experienced with the NO_2 levels and would therefore indicate that the impact of the relocation of the A14 and the Covid lockdown measures has not had as much impact on $PM_{2.5}$ levels. This could be due to a number of factors such as meteorological conditions and an increase in domestic heating etc. On liaising with neighbouring authorities' similar trends have been witnessed in their districts.

[7] Defra Local Air Quality Management Technical Guidance (TG16) 2018

Huntingdonshire District Council is taking the following measures to address $PM_{2.5}$:

- The measures discussed above in Section 2.2 and Table 2.2 will have co-benefits on multiple pollutants, including $PM_{2.5}$.
- In 2014 Huntingdonshire District Council joined with Cambridgeshire County Council Public Health and the other Cambridgeshire authorities to develop the transport and health joint strategic needs assessment which focused on $PM_{2.5}$ from transport, see http://www.cambridgeshireinsight.org.uk/file/2552/download
- Huntingdonshire District Council is intending to review and update the Council's Air Quality Action Plan (AQAP) once the outcome of the current AQMAs has been determined. $PM_{2.5}$ will be considered within any new AQAP.
- Continue to liaise with the Local Planning Authority and developers requesting pre-app advice, to ensure air quality mitigation measures are considered for large developments to minimise any impact (Measurement 2 in Table 2.2).
- Continue to advise planning conditions to require a Construction Environmental Management Plan when necessary, in order to control dust from demolition and construction activities.
- Use of the AQY mobile air quality monitor to enable data (including $PM_{2.5}$) to be collected from areas around the district to identify any hotspots.
- Informing the public of key advice documents, such as those provided by Defra regarding the reduction of air pollution from the use of wood burning stoves and open fires.
- Supporting Clean Air Day, signposting members of the public to resources and advice regarding air quality and promotion of air quality information.
- Provide information and guidance to members of the public regarding Solid Fuel Restrictions and work in partnership with the County Trading Standards Team to highlight any issues.
- Attendance at the quarterly Cambridgeshire Pollution Prevention Group meetings where issues such as air quality are discussed with representatives from other adjoining Local Authorities, The County Council, and the Environment Agency to discuss best practice and partnership working.

Public Health Outcomes Framework:

Some of the above ties in with the Public Health Outcomes Framework (PHOF), which includes an indicator for air pollution due to the extensive evidence of the health impacts associated with it. The PHOF aims to increase healthy life expectancy, reduce differences in life expectancy and have healthy life expectancy between communities. The indicators are designed to demonstrate how well public health is being improved and protected and encourage partnership working and involvement.

The Public Health Indicator for $PM_{2.5}$ provides a useful indication as to the burden associated with concentrations of $PM_{2.5}$ within Huntingdonshire. For example, population-weighted annual average concentrations of anthropogenic $PM_{2.5}$ are provided for all lower tier and unitary local authorities within the UK. These are combined to produce figures at upper tier, regional and national level so that attributable fractions of annual all-cause adult mortality associated with long term exposure to current levels of anthropogenic $PM_{2.5}$ can be calculated at those scales as well[8].

The Public Health England PHOF indicator D01 *'Fraction of mortality attributable to particulate air pollution'* for Huntingdonshire in 2019 (the most recent year available) was 5.5% and this has fluctuated since records began in 2011.

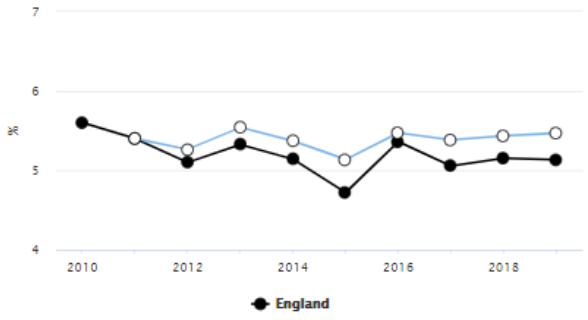
[8] Defra Local Air Quality Management Technical Guidance (TG16) 2018

Public Health England historical data trends for Huntingdonshire compared with England:

D01 - Fraction of mortality attributable to particulate air pollution

Proportion - %

Export chart as image | Show confidence intervals | Show 99.8% CI values | Export table as CSV file



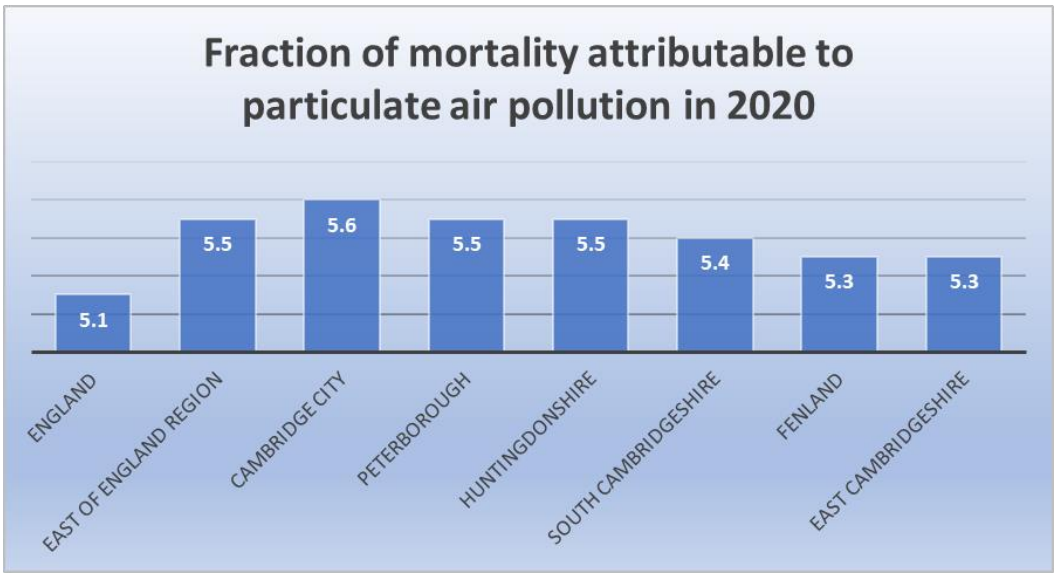
Recent trend: Could not be calculated

Period		Huntingdonshire Count	Value	95% Lower CI	95% Upper CI	East of England	England
2010		-	-	-	-	5.6%	5.6%
2011	○	-	5.4%	-	-	5.5%	5.4%
2012	○	-	5.3%	-	-	5.3%	5.1%
2013	○	-	5.5%	-	-	5.6%	5.3%
2014	○	-	5.4%	-	-	5.4%	5.1%
2015	○	-	5.1%	-	-	5.1%	4.7%
2016	○	-	5.5%	-	-	5.6%	5.4%
2017	○	-	5.4%	-	-	5.5%	5.1%
2018	○	-	5.4%	-	-	5.5%	5.2%
2019	○	-	5.5%	-	-	5.5%	5.1%

Source: Background annual average $PM_{2.5}$ concentrations for the year of interest are modelled on a 1km x 1km grid using an air dispersion model, and calibrated using measured concentrations taken from background sites in Defra's Automatic Urban and Rural Network (http://uk-air.defra.gov.uk/interactive-map.) Data on primary emissions from different sources and a combination of measurement data for secondary inorganic aerosol and models for sources not included in the emission inventory (including re-suspension of dusts) are used to estimate the anthropogenic (human-made) component of these concentrations. By approximating LA boundaries to the 1km by 1km grid, and using census population data, population weighted background $PM_{2.5}$ concentrations for each lower tier LA are calculated. This work is completed under contract to Defra, as a small extension of its obligations under the Ambient Air Quality Directive (2008/50/EC). Concentrations of anthropogenic, rather than total, $PM_{2.5}$ are used as the basis for this indicator, as burden estimates based on total $PM_{2.5}$ might give a misleading impression of the scale of the potential influence of policy interventions (COMEAP, 2012).

Source: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/4/gid/1000043/pat/6/par/E12000006/ati/101/are/E07000011/iid/30101/age/230/sex/4/cid/4/page-options/ovw-do-0_car-do-1

The 2019 figure of 5.5% for Huntingdonshire indicates an increase of 0.1% compared to the 2018 figures but remains similar to the values across the East of England region of 5.5% and 5.1% nationally.



Source: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/3/gid/1000043/pat/6/par/E12000006/ati/101/are/E07000011/iid/30101/age/230/sex/4/cid/4/page-options/ovw-do-0_car-do-0

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

This section sets out the monitoring undertaken within 2020 by Huntingdonshire District Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2016 and 2020 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Huntingdonshire District Council undertook automatic (continuous) monitoring at one site during 2020. Table A.1 in Appendix A shows the details of the automatic monitoring site. The https://www.airqualityengland.co.uk/site/data?site_id=HUN01 page presents automatic monitoring results for Huntingdonshire District Council, with automatic monitoring results also available through the UK-Air website at https://uk-air.defra.gov.uk/interactive-map.

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.

The equipment was replaced in 2019 and now comprises of a Serinus S40 NOx analyser and the FIDAS 200 particulate monitor, both of which are MCERTS certified.

3.1.2 Non-Automatic Monitoring Sites

Huntingdonshire District Council undertook non- automatic (i.e. passive) monitoring of NO_2 at 58 sites during 2020. Table A.2 in Appendix A presents the details of the non-automatic sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are adjusted for bias in line with TG16. Annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction were not required due to good data capture and level of results. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment. No annualisation adjustment was required. The values are also exclusive of any consideration to fall-off with distance adjustment.

For diffusion tubes, the full 2020 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant (i.e. where results are within 10% of the objective, therefore for 2020 this was not required at any site within Huntingdonshire).

In 2020 none of the diffusion tube data indicated a breach of the 40µg/m^3 annual mean objective. Looking at the diffusion tube data for the whole of the district, all results (with the exception of one) were significantly lower than the 2019 figures. As discussed earlier, the greatest reductions were seen in Huntingdon, Fenstanton and Godmanchester, all of which benefitted from the relocation of the A14. The most significant decrease was at Pathfinder House in Huntingdon where levels decreased by 15.3µg/m^3, compared with the previous year, closely followed by George Street (Huntingdon 3) with a reduction of 15.1µg/m^3 and then Brampton Road (Huntingdon 7) with a reduction of 14.7µg/m^3. These are all sites located within the Huntingdon AQMA (see Appendix D for locations). The average reduction over all sites within the district was 7.2µg/m^3, with larger reductions in built up areas and smaller reductions in the more rural locations.

One site did have a slight increase on last year's figure, Brampton 5 (Hansell Road, Brampton), which had a figure of 13.6µg/m^3 in 2019, rising slightly to 14.9µg/m^3 for 2020. However, this appears to be due to one diffusion tube result of 68.8µg/m^3 for the month of July which significantly impacted the annual mean. This was included as per the requirement within government guidance TG16. From discussions with the area officer

who changed the tube it is likely this result was due to construction activities occurring in the area and the location being a convenient place for lorries to park whilst waiting to go on site. Whilst the figure for July was significant, it appears to have been a relatively brief issue, with other months remaining within normal parameters, as seen in Table B.1. If the result of 68.8µg/m^3 was excluded the annual mean would have been 11.7µg/m^3.

Another point to mention regarding the diffusion tubes is that this is the first year of using a local bias adjustment figure (0.68). Previous years have utilised the national bias adjustment figure due to issues with the automatic continuous monitor leading to increased uncertainty. The national bias adjustment figure would have been 0.77 using the National Diffusion Tube Bias Adjustment Factor Spreadsheet (03/21), however it should be noted that even using the higher figure there would still not be any breaches in the objective, or results within 10%. Some residents have raised concerns regarding the need for completing bias adjustment on the diffusion tube results and it should be noted that this is to account for the inherent uncertainty in diffusion tube monitoring concentration data and is completed in line with government guidance (paragraph 7.78 of TG16). The methodology for gaining the bias adjustment figure can be found in Appendix C.

The new NO_2 analyser measured an annual mean of 25µg/m^3 compared to a result of 37µg/m^3 in 2019, a reduction of 12µg/m^3.

Table A.5 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year, and demonstrates that there were no exceedances during the year. This is the same for the last 5 years.

There were also no annual means greater than 60µg/m^3 for any of the diffusion tubes around the district, which again indicates that an exceedance of the 1-hour mean objective was not likely to have occurred at these locations.

NO_2 results from the continuous monitor can be viewed online at the Air Quality England website at https://www.airqualityengland.co.uk/site/data?site_id=HUN01 where data can be downloaded.

Both the automatic continuous monitor and diffusion tube network achieved greater than 75% data capture and therefore annualisation was not required. All data has been properly ratified and corrected for bias where applicable. A distance correction calculation was not required as there are no locations with an annual mean concentration above, or within 10% of the NO_2 annual objective of 40µg/m^3.

To summarise, the data demonstrates that all sites met the NO_2 objective level in 2020, with most results significantly lower than previous years, likely due to relocation of the A14 and government measures to stop the spread of Covid.

3.2.2 Particulate Matter (PM_{10})

Table A.6 in Appendix A: Monitoring Resultscompares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 40µg/m^3.

Table A.7 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past five years with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

These tables show the general trend over the last five years and indicate that there is an overall reduction in PM_{10}. The annual mean PM_{10} figure decreased from 15.74µg/m^3 in 2019 to 14µg/m^3 in 2020, which remains well within the objective level of 40µg/m^3, with no breaches of the 24-hour objective (50µg/m^3). The new monitor has good data capture and therefore there was no requirement for annualisation. PM_{10} results can also be viewed online at the Air Quality England website at https://www.airqualityengland.co.uk/site/data?site_id=HUN01 where data can be downloaded.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.8 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years with results indicating a downward trend and a reduction in the annual mean from 8.67µg/m^3 in 2019 to 8µg/m^3 in 2020. The new monitor has good data capture and therefore there was no requirement for annualisation. $PM_{2.5}$ results can also be viewed online at the Air Quality England website at https://www.airqualityengland.co.uk/site/data?site_id=HUN01 where data can be downloaded.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
PFH	Huntingdon	Roadside	524102	271540	NO_2, PM_{10}, $PM_{2.5}$, PM_1	YES No 1. Huntingdon	Chemiluminescent Light Scattering, Light Scattering, Light Scattering.	3	7	2.5

Notes:

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

(2) N/A if not applicable

Table A.2 – Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
St Neots 1	The Paddocks	Kerbside	517869	260132	NO2	NO	22.0	22.0	NO	3.0
St Neots 2	18 Cromwell Gardens	Roadside	519541	260280	NO2	NO	8.0	4.0	NO	3.0
St Neots 3	71 Avenue Road	Urban Background	518925	260503	NO2	NO	4.0	1.0	NO	3.0
St Neots 4	20 Harland Road	Urban Background	518489	260871	NO2	NO	3.0	1.0	NO	3.0
St Neots 5	8-10 High Street (Post Office)	Kerbside	518323	260263	NO2	YES	0.0	1.0	NO	3.0
St Neots 6	35 High Street (Traffic lights)	Kerbside	518433	260321	NO2	YES	0.0	1.0	NO	3.0
St Neots 7	17 Arundel Crescent	Suburban	518424	258556	NO2	NO	0.0	17.0	NO	1.8
St Neots 8	122 Lindisfarne Close	Suburban	518707	258260	NO2	NO	4.0	31.0	NO	3.0
St Neots 9	5 Duchess Close	Suburban	516370	259514	NO2	NO	3.0	5.0	NO	3.0
Southoe 1	2 Lees Lane	Roadside	518714	264308	NO2	NO	24.0	2.0	NO	1.8
Buckden 1	6 Perry Road	Roadside	518981	267370	NO2	NO	0.0	12.0	NO	1.8
Buckden 2	4 High Street (Roundabout)	Roadside	519082	267433	NO2	NO	0.0	1.0	NO	1.8
Buckden 3	34 High Street (shop)	Roadside	519161	267624	NO2	NO	0.0	1.0	NO	2.0
Buckden 4	11 Taylors Lane	Roadside	519197	267955	NO2	NO	3.0	1.0	NO	3.0
Brampton 1	RAF Brampton (Sparrow Close)	Roadside	520734	269623	NO2	NO	10.0	0.5	NO	3.0
Huntingdon 9	Ermine Street Huntingdon	Roadside	523575	272174	NO2	YES	0.0	3.0	NO	2.0
Brampton 3	1 Laws Crescent	Roadside	520155	271561	NO2	YES	32.0	2.0	No	3.0
Brampton 4	25 Dorling Way	Roadside	519956	271461	NO2	NO	6.0	1.5	No	3.0
Brampton 5	7 Hansell Road	Roadside	519839	271061	NO2	NO	18.0	0.5	No	3.0
Catworth 1	1 Thrapston Road	Rural	508409	274876	NO2	NO	42.0	42.0	NO	3.0
PFH 1, PFH 2, PFH 3	Pathfinder House	Roadside	524102	271540	NO2	YES	8.0	6.0	YES	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
Huntingdon 1	23 Lodge Close	Suburban	523177	271627	NO2	NO	3.0	2.0	NO	3.0
Huntingdon 2	19 Nursery Road	Kerbside	524198	271949	NO2	YES	0.0	1.0	NO	1.8
Huntingdon 3	6 George Street	Kerbside	523661	271802	NO2	YES	0.0	1.0	NO	3.0
Huntingdon 4	1 St Peters Road	Kerbside	523435	272464	NO2	YES	3.0	1.0	NO	3.0
Huntingdon 5	18 Blethan Drive	Roadside	522293	272909	NO2	YES	3.0	2.0	NO	3.0
Huntingdon 6	40 Hartford Road	Roadside	524274	271939	NO2	YES	4.0	2.0	NO	3.0
Godmanchester 1	25 Cambridge Villas	Roadside	525319	270571	NO2	NO	3.0	12.0	NO	3.0
Wood Green Animal Shelter	Goat enclosure	Rural	526250	268264	NO2	NO	0.0	235.0	NO	3.0
Fenstanton 1	Hilton Road	Roadside	531427	268397	NO2	YES	20.0	2.0	NO	3.0
Earith 1	52-54 High Street	Roadside	538460	274797	NO2	NO	0.0	1.8	NO	2.0
Fenstanton 3	1 Pear Tree Close	Rural	531063	268063	NO2	NO	6.0	1.5	NO	3.0
St Ives 1	2 The Pound	Urban Background	531206	272334	NO2	NO	5.0	1.0	NO	3.0
St Ives 2	59 Greenfields	Suburban	530850	270286	NO2	NO	6.0	1.5	NO	3.0
St Ives 3	6 Goldie Close	Roadside	529866	272285	NO2	NO	11.0	6.0	NO	3.0
Ramsey 1	5 Blenheim Road	Urban Background	528433	284936	NO2	NO	4.0	2.0	NO	3.0
Yaxley 1	2 London Road	Roadside	517480	292309	NO2	NO	13.0	2.0	NO	3.0
Stibbington 1	7 Great North Road	Roadside	508326	298684	NO2	NO	22.0	2.0	NO	3.0
Alwalton 1	2 Royce Road	Roadside	513132	295723	NO2	NO	11.0	4.0	NO	3.0
Sawtry 1	81 Fen Lane	Suburban	517440	283443	NO2	NO	4.0	2.0	NO	3.0
Alconbury 1	54 Manor Lane	Roadside	518954	276010	NO2	NO	6.0	2.0	NO	3.0
Great Stukeley 1	Church of Jesus Christ - Ermine Street	Roadside	522000	274607	NO2	NO	33.0	1.0	NO	3.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
Huntingdon 7	6 Brampton Road	Roadside	523432	271760	NO2	YES	10.0	2.0	NO	3.0
Huntingdon 8	Main Road	Roadside	525289	272525	NO2	NO	27.0	2.0	NO	3.0
Hilton 1	1 Westbrook Close	Suburban	528836	266538	NO2	NO	10.0	1.0	NO	3.0
Fenstanton 4	25 High Street	Roadside	531729	268370	NO2	NO	1.5	1.0	NO	3.0
Alconbury 2	Lords Ways	Suburban	518955	275520	NO2	NO	10.0	1.0	NO	3.0
Brampton 6	Parish Hall Church Road	Roadside	521487	270803	NO2	NO	19.0	1.0	NO	3.0
Brampton 7	52 Elizabethan Way	Suburban	519874	270948	NO2	NO	7.0	1.5	NO	3.0
Offord D'Arcy 1	42 Gravely Road	Suburban	522127	266105	NO2	NO	11.0	3.0	NO	3.0
Offord Cluny 2	168 High Street	Roadside	521947	267178	NO2	NO	11.0	3.0	NO	3.0
St Neots 10	81 Great North Road	Roadside	516921	258382	NO2	NO	15.0	1.7	NO	2.0
St Neots 11	119 Cambridge Road	Roadside	519925	260291	NO2	NO	0.0	11.0	NO	2.0
St Ives 4	1 Hill Rise	Kerbside	530529	272357	NO2	NO	6.0	1.0	NO	2.0
St Ives 5	93 Needingworth Road	Roadside	531963	272142	NO2	NO	5.0	1.5	NO	2.0
Warboys	Puddock Road	Roadside	531326	281889	NO2	NO	60.0	2.0	NO	2.0

Notes:

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

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
PFH	524102	271540	Roadside	99.75	99.75	39.4	31.9	28	37	25

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16 (None required).**

☒ **Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

All means have been "annualised" as per LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.4 – Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
St Neots 1	517869	260132	Kerbside	100	100.0	22.1	21.6	17.5	18.1	12.2
St Neots 2	519541	260280	Roadside	100	100.0	N/A	20.3	20.7	21.4	13.7
St Neots 3	518925	260503	Urban Background	100	100.0	18.3	16.9	15.0	15.8	10.9
St Neots 4	518489	260871	Urban Background	100	100.0	16.8	15.4	13.9	14.7	10.0
St Neots 5	518323	260263	Kerbside	100	100.0	31.3	31.2	28.7	28.8	18.6
St Neots 6	518433	260321	Kerbside	100	100.0	29.6	29.9	28.4	29.0	20.4
St Neots 7	518424	258556	Suburban	100	100.0	20.5	19.9	17.4	18.7	14.2
St Neots 8	518707	258260	Suburban	100	100.0	N/A	20.1	18.8	19.9	12.7
St Neots 9	516370	259514	Suburban	100	100.0	28.4	28.1	22.4	23.0	15.5
Southoe 1	518714	264308	Roadside	100	100.0	18.6	16.2	16.2	15.5	10.9
Buckden 1	518981	267370	Roadside	100	100.0	24.9	20.8	21.9	21.8	13.0
Buckden 2	519082	267433	Roadside	100	100.0	25.8	25.6	19.7	22.2	14.4
Buckden 3	519161	267624	Roadside	92.3	92.3	29.6	27.7	25.4	25.7	17.5
Buckden 4	519197	267955	Roadside	100	100.0	22.3	18.7	15.8	17.1	12.0
Brampton 1	520734	269623	Roadside	100	100.0	15.4	14.3	13.1	14.1	10.8
Huntingdon 9	523575	272174	Roadside	100	100.0	N/A	N/A	N/A	28.2	18.3
Brampton 3	520155	271561	Roadside	82.7	82.7	27.0	23.9	21.0	21.0	13.3
Brampton 4	519956	271461	Roadside	100	100.0	19.8	17.4	16.3	16.6	11.2
Brampton 5	519839	271061	Roadside	92.3	92.3	17.5	15.7	13.4	13.6	14.9
Catworth 1	508409	274876	Rural	100	100.0	18.9	20.3	15.8	16.4	11.7
PFH 1, PFH 2, PFH 3	524102	271540	Roadside	100	100.0	**46.1**	**44.9**	**43.3**	**40.1**	24.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
Huntingdon 1	523177	271627	Suburban	100	100.0	19.3	15.9	17.0	16.5	9.8
Huntingdon 2	524198	271949	Kerbside	100	100.0	22.2	25.4	23.5	23.6	14.9
Huntingdon 3	523661	271802	Kerbside	92.3	92.3	39.9	38.8	34.0	35.6	20.5
Huntingdon 4	523435	272464	Kerbside	100	100.0	28.7	28.3	27.4	27.2	15.4
Huntingdon 5	522293	272909	Roadside	100	100.0	26.9	26.5	24.6	23.0	11.0
Huntingdon 6	524274	271939	Roadside	100	100.0	25.2	24.7	21.6	22.4	14.8
Godmanchester 1	525319	270571	Roadside	100	100.0	24.8	22.0	22.1	19.9	9.3
Wood Green Animal Shelter	526250	268264	Rural	100	100.0	13.7	14.1	12.7	12.6	9.6
Fenstanton 1	531427	268397	Roadside	100	100.0	31.2	31.9	25.0	25.2	11.0
Earith 1	538460	274797	Roadside	100	100.0	**N/A**	**N/A**	**N/A**	16.6	10.6
Fenstanton 3	531063	268063	Rural	100	100.0	13.8	13.6	12.4	14.0	9.6
St Ives 1	531206	272334	Urban Background	100	100.0	18.6	19.0	16.3	16.0	11.3
St Ives 2	530850	270286	Suburban	100	100.0	22.9	23.2	19.3	19.3	12.0
St Ives 3	529866	272285	Roadside	100	100.0	**N/A**	16.4	15.9	15.8	10.6
Ramsey 1	528433	284936	Urban Background	100	100.0	19.7	18.1	17.2	17.7	11.7
Yaxley 1	517480	292309	Roadside	100	100.0	**N/A**	28.5	27.8	27.1	18.0
Stibbington 1	508326	298684	Roadside	100	100.0	28.6	29.8	22.8	23.6	14.7
Alwalton 1	513132	295723	Roadside	100	100.0	**N/A**	20.1	19.2	19.1	12.7
Sawtry 1	517440	283443	Suburban	100	100.0	22.3	23.0	20.3	18.0	11.9
Alconbury 1	518954	276010	Roadside	100	100.0	21.8	19.2	19.0	17.4	13.4
Great Stukeley 1	522000	274607	Roadside	100	100.0	**N/A**	18.7	16.4	17.0	10.7

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
Huntingdon 7	523432	271760	Roadside	100	100.0	34.6	37.4	30.7	33.5	18.8
Huntingdon 8	525289	272525	Roadside	100	100.0	**N/A**	23.4	20.5	22.6	14.6
Hilton 1	528836	266538	Suburban	100	100.0	**N/A**	11.9	10.8	12.9	8.5
Fenstanton 4	531729	268370	Roadside	100	100.0	**N/A**	23.1	19.2	20.9	11.5
Alconbury 2	518955	275520	Suburban	90.4	90.4	15.9	15.4	11.2	13.2	9.1
Brampton 6	521487	270803	Roadside	92.3	92.3	**N/A**	23.6	20.7	22.5	15.1
Brampton 7	519874	270948	Suburban	100	100.0	**N/A**	14.5	11.6	14.9	11.0
Offord D'Arcy 1	522127	266105	Suburban	100	100.0	**N/A**	11.4	10.7	13.2	8.8
Offord Cluny 2	521947	267178	Roadside	100	100.0	**N/A**	**N/A**	16.0	19.3	10.7
St Neots 10	516921	258382	Roadside	100	100.0	**N/A**	**N/A**	**N/A**	24.7	16.9
St Neots 11	519925	260291	Roadside	100	100.0	**N/A**	**N/A**	**N/A**	18.7	11.8
St Ives 4	530529	272357	Kerbside	100	100.0	**N/A**	**N/A**	**N/A**	27.6	18.6
St Ives 5	531963	272142	Roadside	100	100.0	**N/A**	**N/A**	**N/A**	28.1	21.3
Warboys	531326	281889	Roadside	100	100.0	**N/A**	**N/A**	**N/A**	10.9	7.5

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16 (None required).**

☒ **Diffusion tube data has been bias adjusted.**

☒ **Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance correction.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

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

N/A indicates no diffusion tube present

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

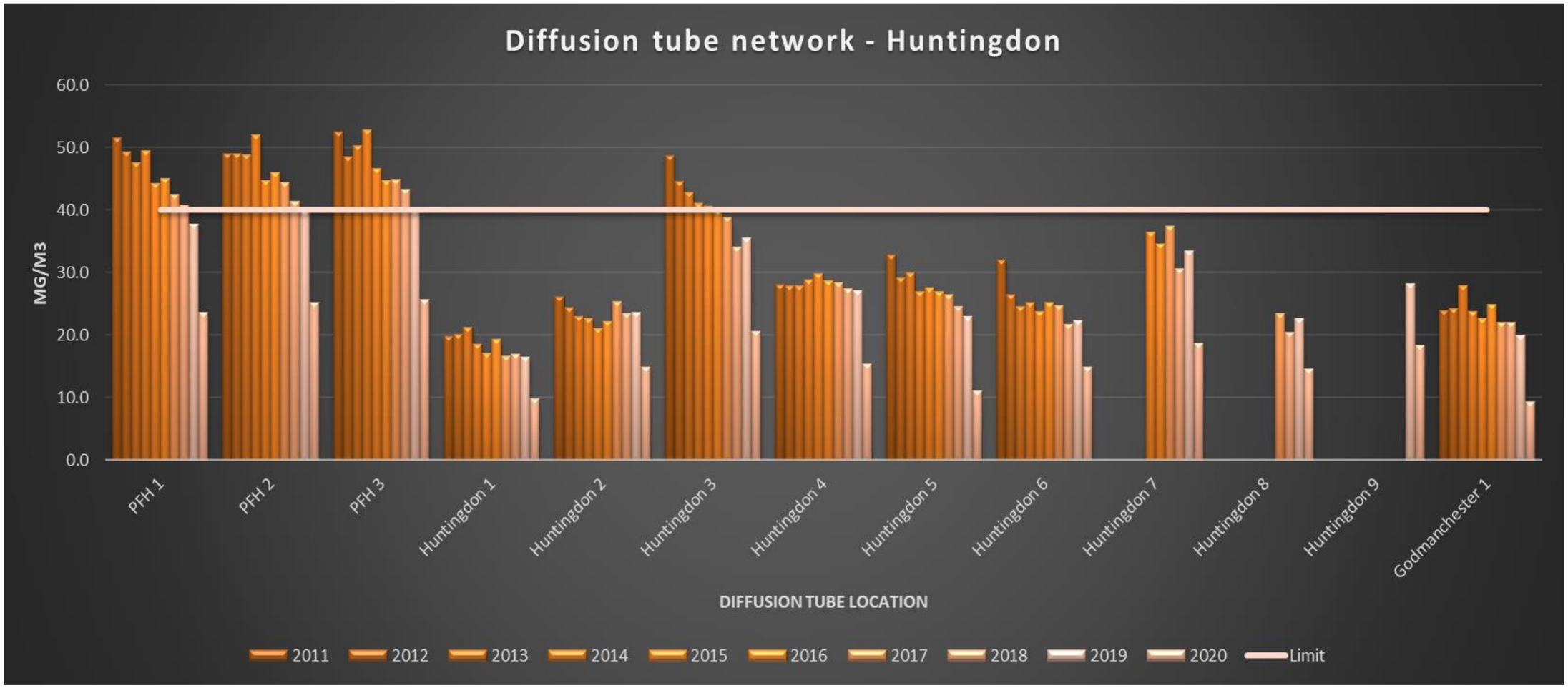
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

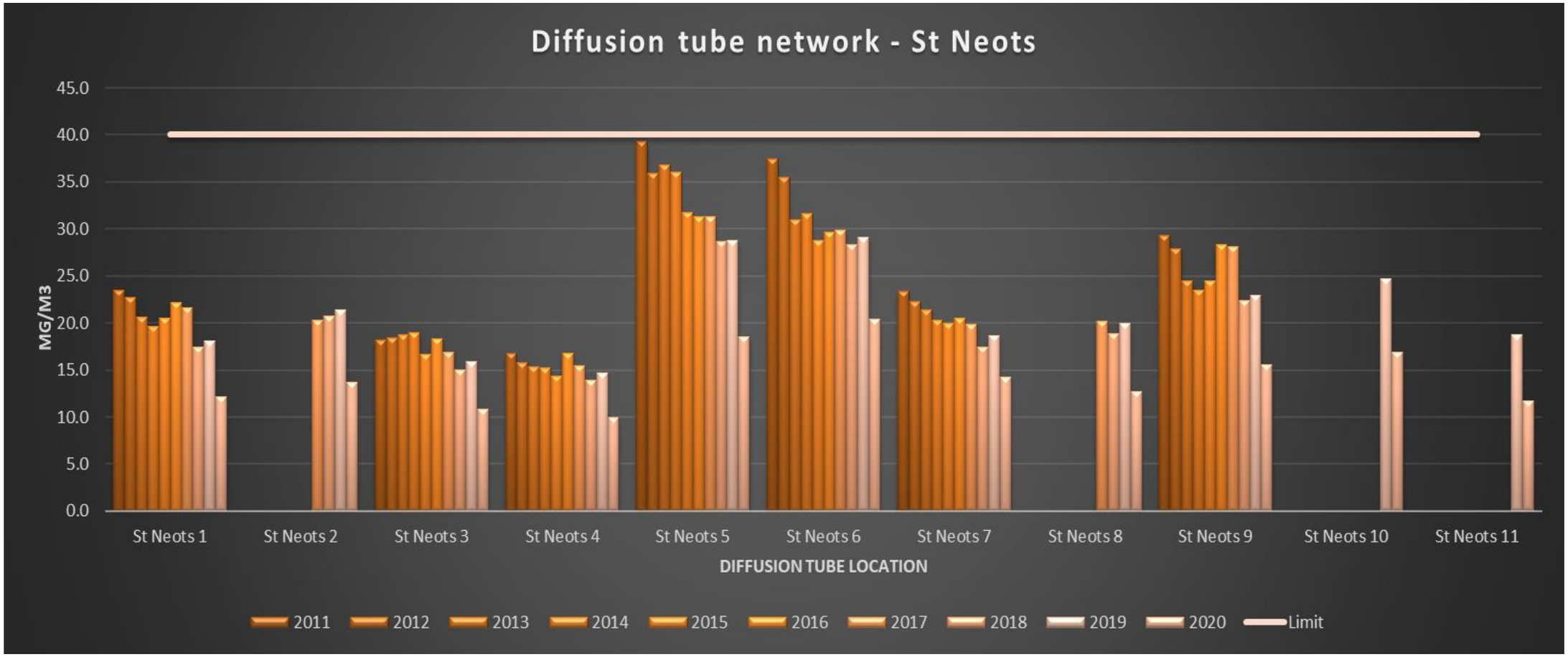
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

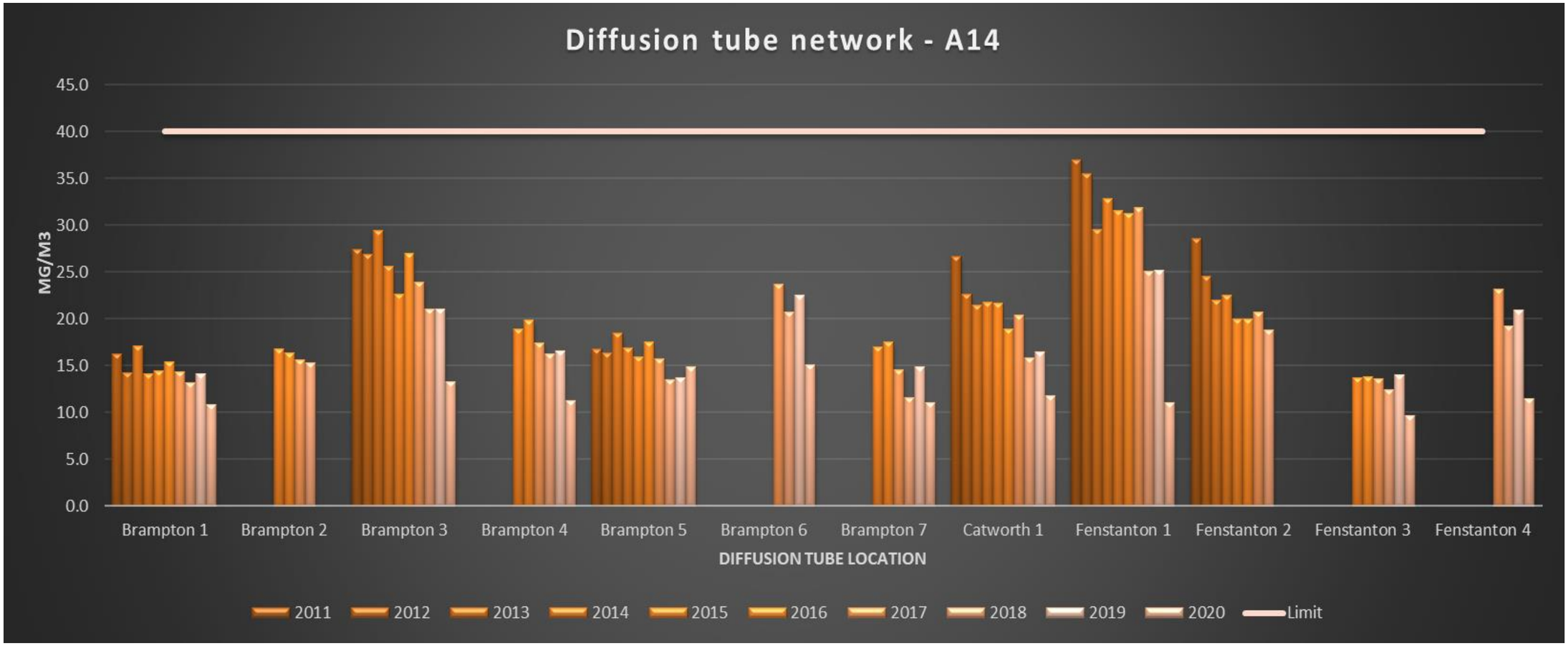
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

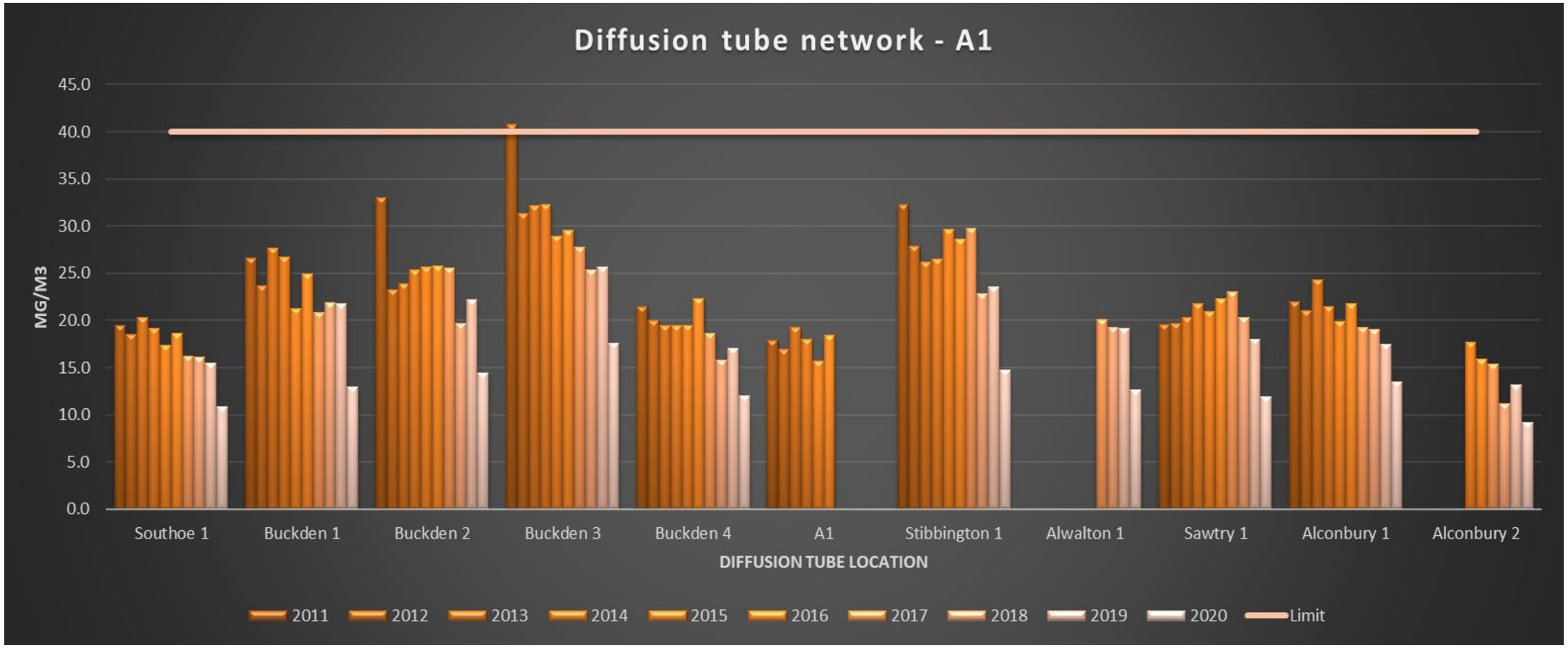
Figure A.1 – Trends in Annual Mean NO_2 Concentrations

The presentation of the following charts has been completed to take account of readers who are colour blind, if you have any issues viewing the charts please contact us on the details at the top of this report and we can provide the information in another format.




Diffusion tube network - St Neots
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
MG/M3
St Neots 1
St Neots 2
St Neots 3
St Neots 4
St Neots 5
St Neots 6
St Neots 7
St Neots 8
St Neots 9
St Neots 10
St Neots 11
DIFFUSION TUBE LOCATION
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Limit


Diffusion tube network - A14
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
MG/M3
Brampton 1
Brampton 2
Brampton 3
Brampton 4
Brampton 5
Brampton 6
Brampton 7
Catworth 1
Fenstanton 1
Fenstanton 2
Fenstanton 3
Fenstanton 4
DIFFUSION TUBE LOCATION
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Limit


Diffusion tube network - A1
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
MG/M3
Southoe 1
Buckden 1
Buckden 2
Buckden 3
Buckden 4
A1
Stibbington 1
Alwalton 1
Sawtry 1
Alconbury 1
Alconbury 2
DIFFUSION TUBE LOCATION
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Limit

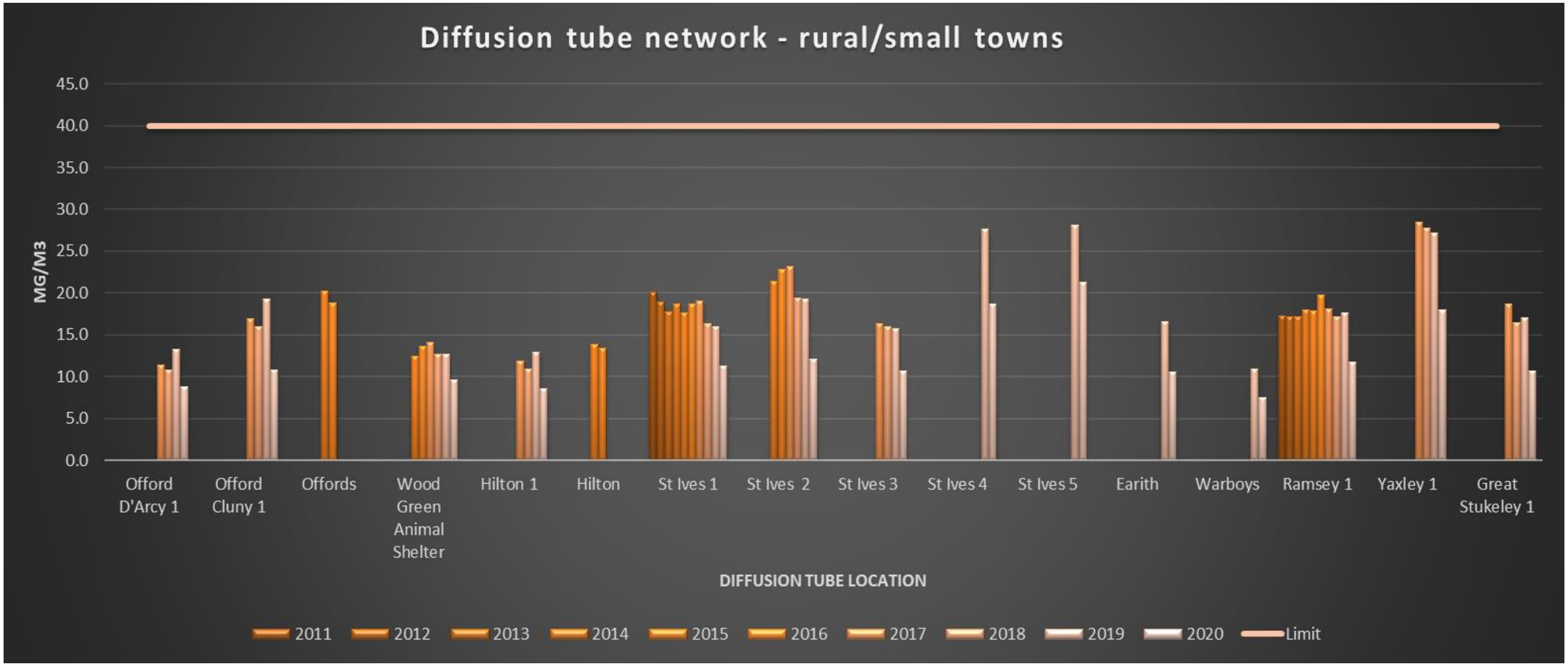

Diffusion tube network - rural/small towns
MG/M3
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Offord D'Arcy 1
Offord Cluny 1
Offords
Wood Green Animal Shelter
Hilton 1
Hilton
St Ives 1
St Ives 2
St Ives 3
St Ives 4
St Ives 5
Earith
Warboys
Ramsey 1
Yaxley 1
Great Stukeley 1
DIFFUSION TUBE LOCATION
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Limit

Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
PFH	524102	271540	Roadside	99.75	99.75	0	0	0	0	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m^3 have been recorded.

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**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.6 – Annual Mean PM_{10} Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
PFH	524102	271540	Roadside	99.75	99.75	20.39	18.4	**No Data**	15.74	14

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16 (None required).**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the PM_{10} annual mean objective of 40µg/m^3 are shown in **bold**.

All means have been “annualised” as per LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.2 – Trends in Annual Mean PM_{10} Concentrations

The presentation of this chart has been completed to take account of readers who are colour blind, if you have any issues viewing the chart please contact us on the details at the top of this report and we can provide the information in another format.

Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
PFH	524102	271540	Roadside	99.75	99.75	5	7	**No Data**	0	0

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

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**.

If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.3 – Trends in Number of 24-Hour Mean PM_{10} Results > 50µg/m³

The presentation of this chart has been completed to take account of readers who are colour blind, if you have any issues viewing the chart please contact us on the details at the top of this report and we can provide the information in another format.

Table A.8 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2020 (%) (2)	2016	2017	2018	2019	2020
PFH	524102	271540	Roadside	99.75	99.75	11.8	10.6	11.7	8.67	8

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16 (None required).**

Notes:

The annual mean concentrations are presented as µg/m³.

All means have been “annualised” as per LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.4 – Trends in Annual Mean $PM_{2.5}$ Concentrations

The presentation of this chart has been completed to take account of readers who are colour blind, if you have any issues viewing the chart please contact us on the details at the top of this report and we can provide the information in another format.

Appendix B: Full Monthly Diffusion Tube Results for 2020

Table B.1 – NO_2 2020 Diffusion Tube Results (µg/m^3)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Easting)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.68)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
St Neots 1	517869	260132	22.3	20.5	15.3	10.9	11.5	15.9	13.5	14.5	18.4	21.2	26.0	24.9	17.9	12.2	-	
St Neots 2	519541	260280	29.7	22.2	18.4	12.8	14.6	15.7	13.9	16.0	21.1	19.4	30.3	26.8	20.1	13.7	-	
St Neots 3	518925	260503	35.4	15.5	13.1	9.6	10.9	9.7	7.6	10.4	14.5	16.1	23.6	25.1	16.0	10.9	-	
St Neots 4	518489	260871	29.0	16.6	13.8	10.0	9.6	8.5	7.5	10.0	12.4	13.9	23.7	21.4	14.7	10.0	-	
St Neots 5	518323	260263	25.7	30.7	26.6	18.5	21.2	23.0	21.4	22.4	31.5	30.9	37.7	37.9	27.3	18.6	-	
St Neots 6	518433	260321	45.9	33.4	27.1	19.3	20.6	23.9	19.6	27.1	29.7	31.4	40.1	41.7	30.0	20.4	-	
St Neots 7	518424	258556	45.3	18.9	19.7	11.8	19.6	13.9	8.3	12.6	18.4	25.5	31.6	24.9	20.9	14.2	-	
St Neots 8	518707	258260	36.9	22.9	16.1	10.2	12.0	11.7	10.5	14.2	17.2	19.8	27.6	25.0	18.7	12.7	-	
St Neots 9	516370	259514	33.3	32.3	21.7	13.2	14.2	16.3	17.6	15.8	22.7	23.0	33.5	30.8	22.9	15.5	-	
Southoe 1	518714	264308	44.2	1.6	16.0	13.6	10.7	13.5	7.1	13.5	12.6	15.8	22.0	20.9	16.0	10.9	-	
Buckden 1	518981	267370	23.8	15.8	17.9	19.9	15.7	16.5	8.8	20.2	22.1	18.3	26.2	23.6	19.1	13.0	-	
Buckden 2	519082	267433	32.3	28.2	17.8	12.3	16.1	14.3	20.6	17.9	23.2	22.2	27.6	21.9	21.2	14.4	-	
Buckden 3	519161	267624	39.1	29.1	25.7	14.1	17.3		17.6	22.5	26.6	24.2	35.5	31.9	25.8	17.5	-	
Buckden 4	519197	267955	30.6	20.0	18.7	13.0	11.4	10.6	10.2	13.2	16.8	19.1	25.5	23.5	17.7	12.0	-	
Brampton 1	520734	269623	31.3	22.2	14.5	8.6	7.6	9.3	8.0	10.0	14.1	16.6	27.5	21.6	15.9	10.8	-	
Huntingdon 9	523575	272174	48.7	27.7	24.8	20.1	18.7	25.5	15.5	18.3	25.9	24.2	40.0	33.9	26.9	18.3	-	
Brampton 3	520155	271561	32.2		18.0	13.0	13.3	13.4	11.8		18.6	20.6	30.2	24.2	19.5	13.3	-	
Brampton 4	519956	271461	26.0	19.5	15.2	11.6	10.4	11.7	11.1	11.6	16.4	17.2	23.6	23.2	16.5	11.2	-	
Brampton 5	519839	271061	27.4	19.5	13.3	9.9	8.4		68.8	10.2	20.4	15.2	24.8	23.0	21.9	14.9	-	

Catworth 1	508409	274876	32.3	22.3	16.7	9.3	9.9	11.8	13.5	13.1	16.1	19.3	22.3	20.7	17.3	11.7	-	
PFH 1	524102	271540	47.6	31.3	32.3	34.2	32.0	36.6	25.0	38.4	38.6	35.9	34.8	29.4	-	-	-	Triplicate Site with PFH 1, PFH 2 and PFH 3 - Annual data provided for PFH 3 only
PFH 2	524102	271540	52.9	33.9	32.1	37.0	34.1	35.4	27.2	36.4	39.9	37.1	38.4	39.9	-	-	-	Triplicate Site with PFH 1, PFH 2 and PFH 3 - Annual data provided for PFH 3 only
PFH 3	524102	271540	51.8	34.8	35.7	36.9	34.7	40.1	25.3	39.1	43.1	33.6	40.2	37.0	36.5	24.8	-	Triplicate Site with PFH 1, PFH 2 and PFH 3 - Annual data provided for PFH 3 only
Huntingdon 1	523177	271627	24.8	14.7	14.4	11.0	9.4	8.8	7.6	9.8	14.2	15.4	22.2	20.8	14.4	9.8	-	
Huntingdon 2	524198	271949	35.7	19.5	22.3	18.9	15.9	17.5	13.6	19.2	21.2	22.5	29.1	28.0	22.0	14.9	-	
Huntingdon 3	523661	271802	46.6		30.7	18.7	20.9	22.5	21.5	27.1	33.0	34.8	41.4	34.8	30.2	20.5	-	
Huntingdon 4	523435	272464	40.2	25.6	16.2	16.4	17.1	19.8	15.2	16.2	24.4	25.9	30.7	24.3	22.7	15.4	-	
Huntingdon 5	522293	272909	26.3	18.0	14.0	12.1	12.0	10.1	12.6	12.1	17.1	17.4	23.4	19.5	16.2	11.0	-	
Huntingdon 6	524274	271939	42.3	24.3	21.2	12.1	13.8	12.3	15.1	14.4	18.9	24.1	29.9	33.0	21.8	14.8	-	
Godmanchester 1	525319	270571	24.3	17.3	13.2	10.2	8.5	9.3	7.1	8.0	13.1	14.2	17.4	21.9	13.7	9.3	-	
Wood Green Animal Shelter	526250	268264	25.3	19.3	14.1	8.2	7.6	8.8	7.8	8.7	12.4	14.1	22.7	20.2	14.1	9.6	-	
Fenstanton 1	531427	268397	30.3	17.7	15.6	10.1	9.9	10.9	10.0	10.8	15.7	15.7	24.9	22.6	16.2	11.0	-	
Earith 1	538460	274797	26.5	20.4	15.0	11.9	11.5	9.6	11.0	9.9	14.5	12.6	22.9	21.3	15.6	10.6	-	
Fenstanton 3	531063	268063	22.6	15.3	14.0	11.0	8.4	10.2	8.1	9.5	13.7	14.3	21.2	20.7	14.1	9.6	-	
St Ives 1	531206	272334	30.1	20.2	15.7	11.0	8.8	8.3	9.4	10.5	14.4	17.2	27.8	25.5	16.6	11.3	-	
St Ives 2	530850	270286	29.0	18.4	15.4	11.0	10.8	12.0	15.6	13.7	18.6	19.8	23.8	24.2	17.7	12.0	-	
St Ives 3	529866	272285	28.8	16.0	14.3	10.6	8.7	10.0	7.4	10.8	14.1	15.2	26.8	25.1	15.7	10.6	-	
Ramsey 1	528433	284936	19.4	19.6	15.0	12.1	11.4	13.5	9.5	14.6	16.9	19.2	29.2	26.9	17.3	11.7	-	
Yaxley 1	517480	292309	42.6	27.5	23.0	17.8	15.8	23.6	19.7	24.1	28.0	28.5	34.4	32.9	26.5	18.0	-	
Stibbington 1	508326	298684	39.1	27.6	19.6	13.5	14.4	17.2	16.3	18.6	22.2	22.5	27.8	20.7	21.6	14.7	-	
Alwalton 1	513132	295723	32.2	19.2	17.4	11.1	12.5	13.1	15.9	15.0	20.5	19.1	27.0	21.0	18.7	12.7	-	
Sawtry 1	517440	283443	27.3	16.5	18.3	16.1	11.5	16.5	9.8	15.9	17.4	14.8	20.6	25.8	17.5	11.9	-	

Alconbury 1	518954	276010	31.7	18.5	17.7	18.9	14.3	15.2	9.7	15.8	21.0	20.8	27.9	25.7	19.8	13.4	-	
Great Stukeley 1	522000	274607	33.0	17.4	13.6	8.9	9.0	9.5	8.5	10.2	15.3	15.9	25.3	22.4	15.8	10.7	-	
Huntingdon 7	523432	271760	42.7	34.3	25.7	18.3	19.4	17.5	23.0	24.8	31.7	27.3	37.0	29.5	27.6	18.8	-	
Huntingdon 8	525289	272525	37.7	23.3	18.4	16.8	14.3	16.8	13.4	16.0	22.0	20.9	32.0	25.9	21.5	14.6	-	
Hilton 1	528836	266538	21.2	14.5	12.4	8.7	8.0	8.8	6.8	9.1	12.8	11.8	19.0	17.4	12.5	8.5	-	
Fenstanton 4	531729	268370	28.5	20.5	16.4	11.0	10.7	13.2	9.4	12.5	16.6	17.6	26.6	19.1	16.8	11.5	-	
Alconbury 2	518955	275520	20.3	14.5	10.4	8.5		11.7	7.6	10.1	13.0	14.4	20.1	17.2	13.4	9.1	-	
Brampton 6	521487	270803	41.8	27.6	20.4	13.4	15.7	17.7	14.5	18.2	22.5	25.9		26.0	22.2	15.1	-	
Brampton 7	519874	270948	28.5	19.1	13.6	10.4	9.6	9.0	10.6	11.9	15.4	17.0	26.1	22.8	16.2	11.0	-	
Offord D'Arcy 1	522127	266105	24.2	9.3	10.7	8.3	8.1	8.6	8.0	9.8	12.6	14.6	23.4	18.0	13.0	8.8	-	
Offord Cluny 2	521947	267178	7.2	19.3	17.4	12.1	11.3	12.9	12.4	15.4	17.0	20.5	22.8	21.4	15.8	10.7	-	
St Neots 10	516921	258382	39.3	26.9	22.8	18.6	19.8	21.3	16.8	23.9	17.5	26.6	36.0	28.9	24.9	16.9	-	
St Neots 11	519925	260291	27.0	17.7	12.2	12.7	13.5	14.1	13.6	13.2	18.4	20.7	23.9	20.5	17.3	11.8	-	
St Ives 4	530529	272357	45.0	30.9	20.0	17.6	20.5	21.2	20.8	24.1	30.2	30.1	34.0	34.2	27.4	18.6	-	
St Ives 5	531963	272142	46.2	27.3	30.2	23.5	22.6	26.0	20.6	30.9	35.1	32.9	41.7	38.0	31.3	21.3	-	
Warboys	531326	281889	22.3	12.2	10.0	8.4	7.6	8.1	7.5	7.6	9.5	10.0	14.5	14.4	11.0	7.5	-	

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1 (None required).**

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG16 (None required).**

☒ **Local bias adjustment factor used.**

☐ **National bias adjustment factor used.**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column (None required).**

☒ **Huntingdonshire District Council confirm that all 2020 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

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

See Appendix C for details on bias adjustment and annualisation.

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

New or Changed Sources Identified Within Huntingdonshire District During 2020

Two crematoria gained planning permission in 2019/2020 but neither are currently operational. Various residential and industrial development is taking place, but Huntingdonshire District Council has not identified any significant new sources relating to air quality within the reporting year of 2020. See page iv above for more detail.

Additional Air Quality Works Undertaken by Huntingdonshire District Council During 2020

Huntingdonshire District Council has not completed any additional studies relating to the development of action plan measures or the declaration, amendment, or revocation of an AQMA within the reporting year of 2020.

QA/QC of Diffusion Tube Monitoring

HDC currently have a contract with SOCOTEC to provide and analyse our diffusion tubes. The method of preparation is by spiking acetone: triethanolamine (50:50) onto the grids prior to the tubes being assembled. Samples are analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015. This method meets the guidelines set out in DEFRA's *'Diffusion Tubes For Ambient NO2 Monitoring: Practical Guidance.'* The analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on the tube is also within the scope of SOCOTEC's UKAS schedule. In the AIR PT inter-comparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, SOCOTEC currently holds the highest rank of a Satisfactory laboratory.

Diffusion tube monitoring has been completed in adherence with the Defra 2020 Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within the district of Huntingdonshire recorded data capture of at least 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation, which is again not applicable for HDC.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2020 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG16 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Huntingdonshire District Council have applied a local bias adjustment factor of 0.68 to the 2020 monitoring data. A summary of bias adjustment factors used by Huntingdonshire District Council over the past five years is presented in Table C.1.

The local bias adjustment factor was gained utilising information from the automatic continuous analyser at Pathfinder House in Huntingdon. Further information can be viewed in Table C.2 below.

Table C.1 – Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2020	Local	-	0.68
2019	National	03/20	0.75
2018	National	03/19	0.76
2017	National	03/18	0.77
2016	National	09/17	0.77

Diffusion Tube NO_2 Fall-off with Distance from the Road

Wherever possible, local authorities should ensure that monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure should be estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

Distance correction should be considered at any monitoring site where the annual mean concentration is greater than 36µg/m^3 and the monitoring site is not located at a point of relevant exposure. Due to the results gained no diffusion tube NO_2 monitoring locations within Huntingdonshire required distance correction during 2020.

QA/QC of Automatic Monitoring

HDC have a Service Contract with Air Monitors (now Acoem) as well as a contract with Ricardo to provide independent Quality Assurance/Quality Control audits and data management, including ratification. QA/QC reports are available on request. Fully ratified results are available online at the Air Quality England website at https://www.airqualityengland.co.uk/site/data?site_id=HUN01 where data can be downloaded. All automatic monitoring data within the ASR is fully ratified.

During 2020 an automatic calibration system was utilised for the NOx monitor, however there have been issues with the gas cylinder oxidising and therefore the auto cal system is due to be replaced with a standard manual system which will involve an officer visiting and completing a calibration every 2 weeks. This will be discussed further in next year's ASR.

Servicing and QA/QC are completed on a six-monthly basis.

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

The FIDAS 200 does not require the application of a correction factor for PM_{10}, However for $PM_{2.5}$ a factor of 0.9434 (divided by 1.06) is applied. This follows section 7.162 in TG(16) - https://laqm.defra.gov.uk/documents/LAQM-TG16-April-21-v1.pdf . The data downloaded from the AQE website already has this correction factor applied.

Automatic Monitoring Annualisation

All automatic monitoring locations within Huntingdonshire recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation, which is again not applicable for HDC.

NO_2 Fall-off with Distance from the Road

Wherever possible, local authorities should ensure that monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure should be estimated using the NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

As mentioned above under the diffusion tube section, distance correction should be considered at any monitoring site where the annual mean concentration is greater than 36µg/m^3 and the monitoring site is not located at a point of relevant exposure. Due to the results obtained at the automatic NO_2 monitoring location within Huntingdonshire, no distance correction was required during 2020.

Table C.2 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2	Local Bias Adjustment Input 3	Local Bias Adjustment Input 4	Local Bias Adjustment Input 5
Periods used to calculate bias	12				
Bias Factor A	0.68 (0.64 - 0.73)				
Bias Factor B	47% (38% - 56%)				
Diffusion Tube Mean (µg/m^3)	36.5				
Mean CV (Precision)	6.1%				
Automatic Mean (µg/m^3)	24.8				
Data Capture	100%				
Adjusted Tube Mean (µg/m^3)	25 (23 – 27)				

Notes:

A single local bias adjustment factor has been used to bias adjust the 2020 diffusion tube results.

Appendix D: Map(s) of Monitoring Locations and AQMAs

Figure D.1 – Map of Non-Automatic Monitoring (Diffusion Tube) NO_2 Sites:

Figure D.2 – Map of Huntingdon AQMA Diffusion Tube NO_2 monitoring locations:

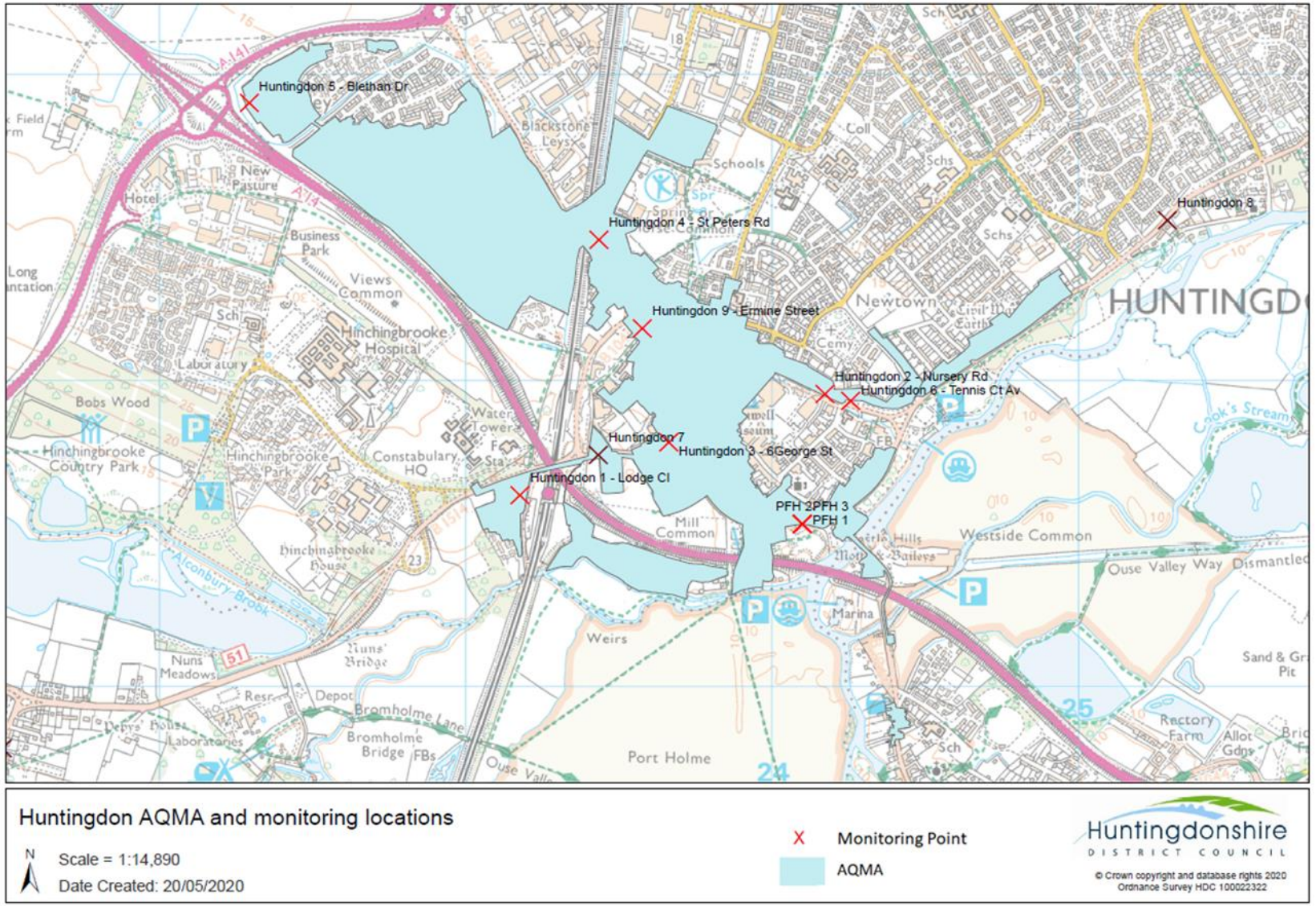


Figure D.3 – Map of St Neots AQMA Diffusion Tube NO_2 monitoring locations:

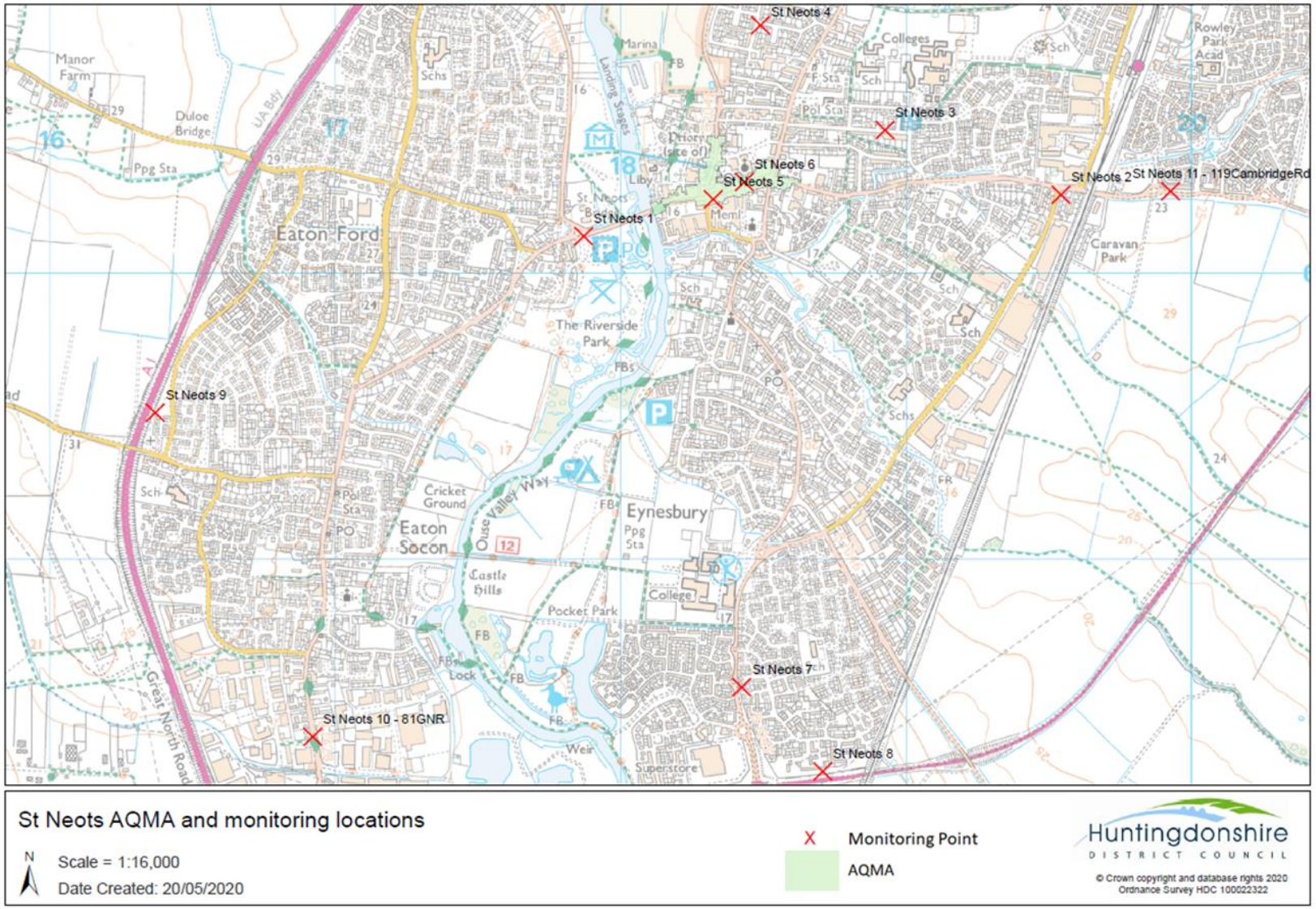


Figure D.4 – Map of A14 Fenstanton AQMA Diffusion Tube NO_2 monitoring locations:

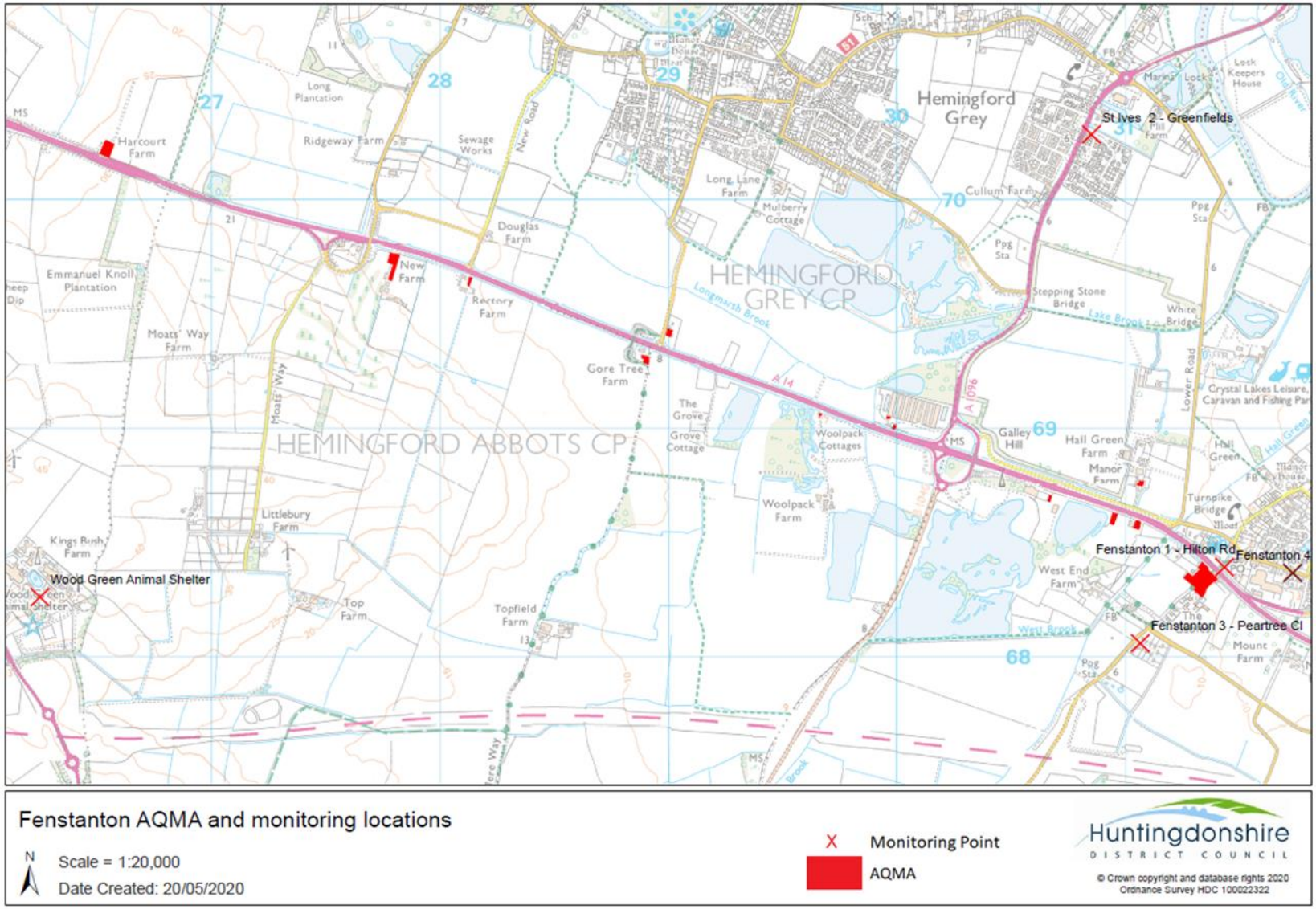


Figure D.5 – Map of Brampton AQMA Diffusion Tube NO_2 monitoring locations:

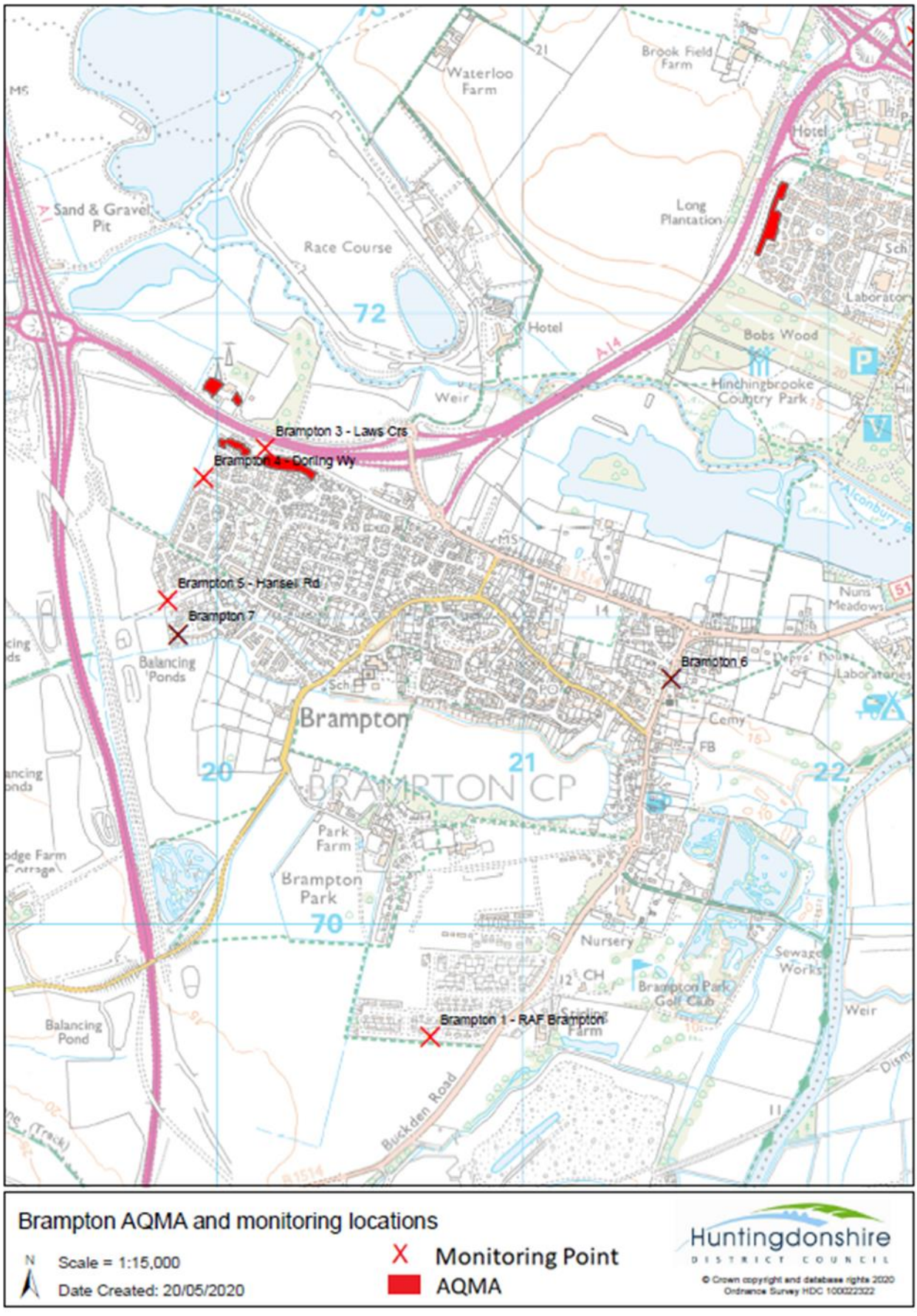


Figure D.6 – Map of Automatic NO_2, PM_{10} and $PM_{2.5}$ monitoring location:

Figure D.7 – Map of Automatic NO_2, PM_{10} and $PM_{2.5}$ monitoring location:

Figure D.8 – Map of Automatic NO_2, PM_{10} and $PM_{2.5}$ monitoring location:

Please note – The AQMS can be seen in relation to the AQMA, on figure D2 as 'PFH'.

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[9]

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

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

Appendix F: Impact of COVID-19 upon LAQM

COVID-19 has had a significant impact on society. Inevitably, COVID-19 has also had an impact on the environment, with implications to air quality at local, regional and national scales.

COVID-19 has presented various challenges for Local Authorities with respect to undertaking their statutory LAQM duties in the 2021 reporting year. Recognising this, Defra provided various advice updates throughout 2020 to English authorities, particularly concerning the potential disruption to air quality monitoring programmes, implementation of Air Quality Action Plans (AQAPs) and LAQM statutory reporting requirements. Defra has also issued supplementary guidance for LAQM reporting in 2021 to assist local authorities in preparing their 2021 ASR. Where applicable, this advice has been followed.

Despite the challenges that the pandemic has given rise to, the events of 2020 have also provided Local Authorities with an opportunity to quantify the air quality impacts associated with wide-scale and extreme intervention, most notably in relation to emissions of air pollutants arising from road traffic. The vast majority (>95%) of AQMAs declared within the UK are related to road traffic emissions, where attainment of the annual mean objective for nitrogen dioxide (NO_2) is considered unlikely. On 23rd March 2020, the UK Government released official guidance advising all members of public to stay at home, with work-related travel only permitted when absolutely necessary. During this initial national lockdown (and to a lesser extent other national and regional lockdowns that followed), marked reductions in vehicle traffic were observed; Department for Transport (DfT) data[10] suggests reductions in vehicle traffic of up to 70% were experienced across the UK by mid-April, relative to pre COVID-19 levels.

This reduction in travel in turn gave rise to a change of air pollutant emissions associated with road traffic, i.e. nitrous oxides (NO_x), and exhaust and non-exhaust particulates (PM). The Air Quality Expert Group (AQEG)[11] has estimated that during the initial lockdown period in 2020, within urbanised areas of the UK reductions in NO_2 annual mean concentrations were between 20 and 30% relative to pre-pandemic levels, which

[10] Prime Minister's Office, COVID-19 briefing on the 31st of May 2020

[11] Air Quality Expert Group, Estimation of changes in air pollution emissions, concentrations and exposure during the COVID-19 outbreak in the UK, June 2020

represents an absolute reduction of between 10 to 20µg/m^3 if expressed relative to annual mean averages. During this period, changes in $PM_{2.5}$ concentrations were less marked than those of NO_2. $PM_{2.5}$ concentrations are affected by both local sources and the transport of pollution from wider regions, often from well beyond the UK. Through analysis of AURN monitoring data for 2018-2020, AQEG have detailed that $PM_{2.5}$ concentrations during the initial lockdown period are of the order 2 to 5µg/m^3 lower relative to those that would be expected under business-as-usual conditions.

As restrictions are gradually lifted, the challenge is to understand how these air quality improvements can benefit the long-term health of the population.

Impacts of COVID-19 on Air Quality within Huntingdonshire

As discussed above in the Executive summary on page iii, as well as in Section 3.2.1, the restrictions associated with Covid seem to have had a significant impact on the NO_2 results in Huntingdonshire over 2020. In line with national trends this appears to be more pronounced in urban areas. In Huntingdonshire's case the relocation of the A14 is also likely to have had an impact.

Within the Huntingdon AQMA there has been around a 35% - 45% reduction in the annual mean NO_2 concentrations at roadside diffusion tube monitoring sites, with the average reduction throughout the district being around 35%, with reductions up to 56% at the Fenstanton 1 site.

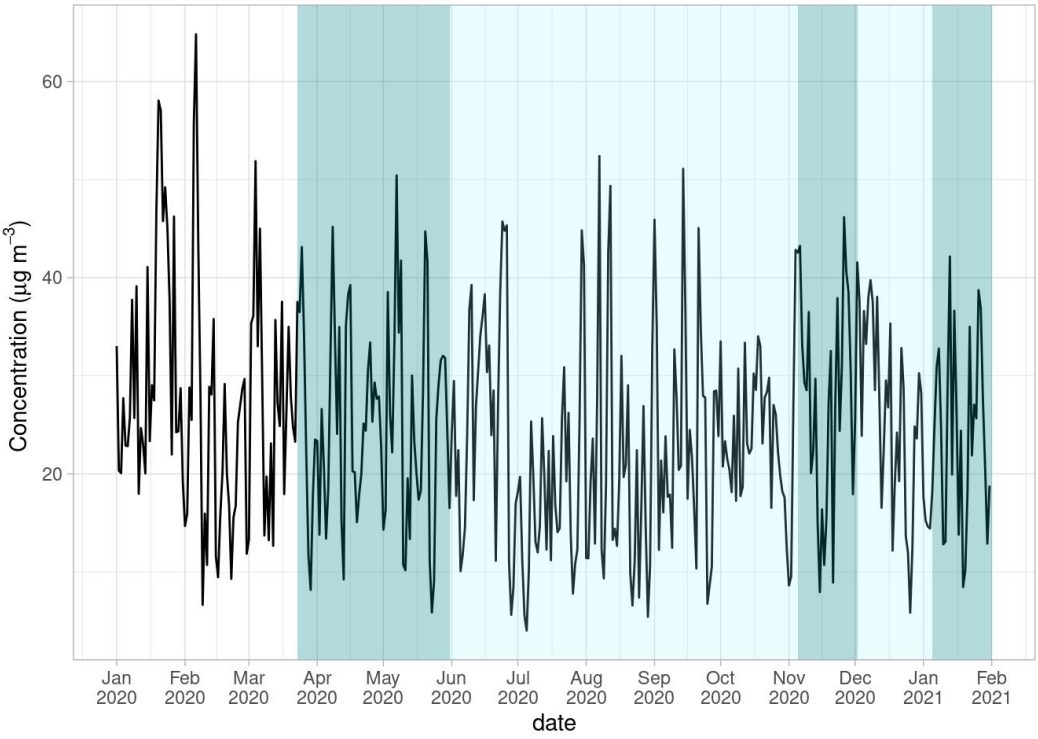
Data from the automatic monitor at Pathfinder House in Huntingdon (within the Huntingdon AQMA) can be downloaded and Ricardo have completed a report examining the impact of lockdown measures on evolving ambient air quality data. The analysis focuses on NOx, NO_2 from January 2020 through January 2021, and uses proven modelling techniques to discount the influence of weather on ambient pollutant concentrations. Details of this methodology can be found here: https://ee.ricardo.com/news/analysis-of-covid-19-lockdown-on-uk-local-air-pollution . At roadside locations NOx concentrations will be closely linked to primary emissions and should show the direct impact of reduced local traffic on air pollution. NO_2 will be from a mixture of primary emissions and secondary chemical reactions but should again be closely linked to local traffic reduction.

The report specified the following:

(N.B. Both measured and modelled data reported here are provisional pending full QA/QC processes).

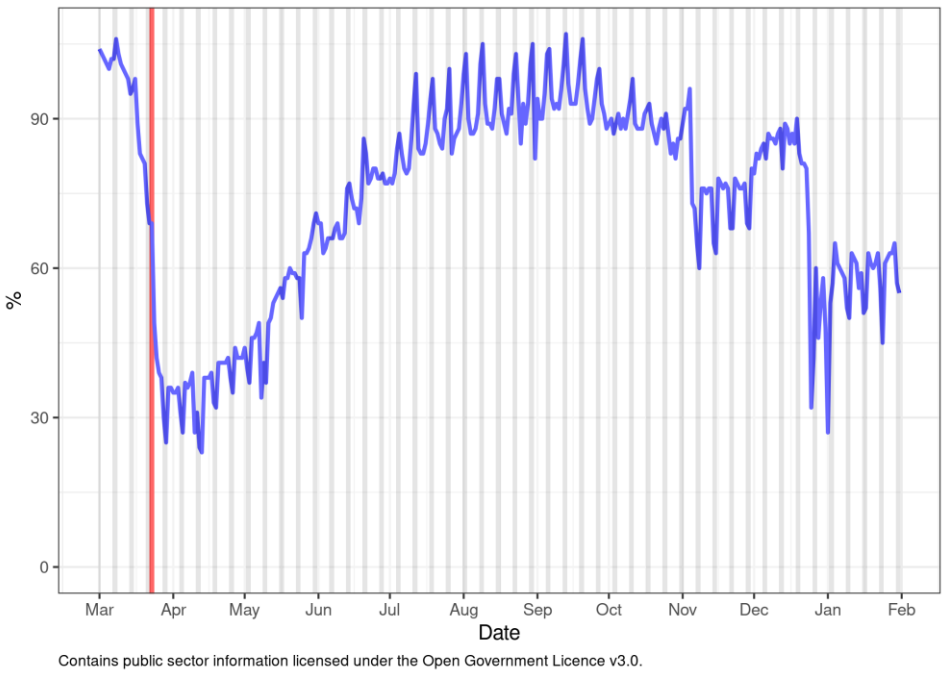
Time Series

First let us look at the daily concentrations of NO_2 since January 2020 and get a general sense of the trend of pollutant concentrations. The dark green shading represents periods when either a UK-wide or England-wide Lockdown was in place. The light blue shading indicates the periods during which various restrictions on a regional level have been implemented.



Road Traffic Data

We can also look at the change in road traffic volumes over the past few months. The Department for Transport (DfT) publishes statistics (~ weekly) on estimated transport use during the COVID-19 pandemic. Details on the methodology and full statistics can be found here: (https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic). The blue line in the figure below shows the estimated daily percentage of all motor vehicles, with respect to the equivalent day in the first week of February, across Great Britain, since 1st March 2020. The red line indicates the start of lockdown (23rd March) and shaded grey areas represent weekends.



Simulated Normal Concentrations

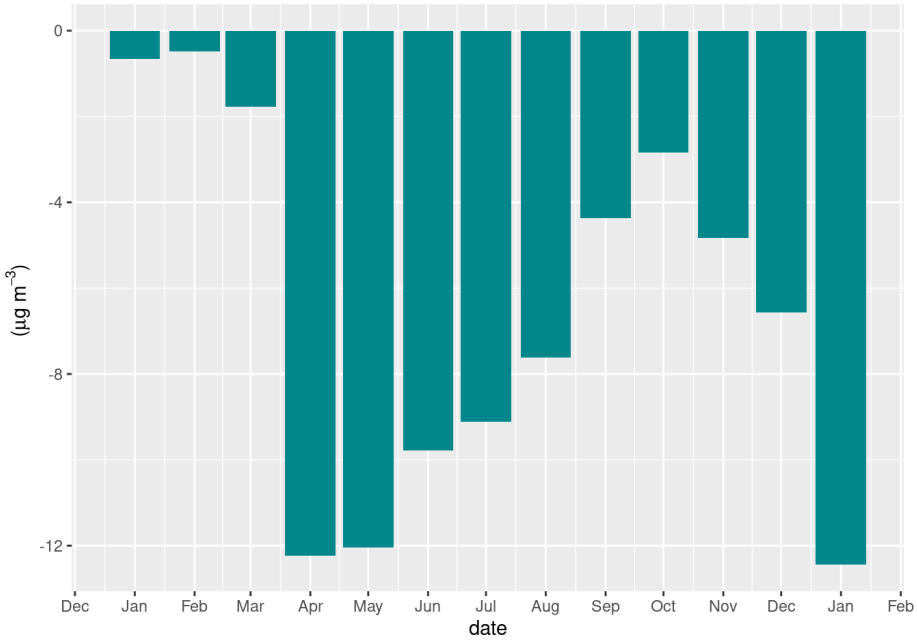
A perennial problem when comparing air pollution data before and after certain interventions is the effect of the weather. To counteract the effect of weather, we use a model to simulate pollutant concentrations using wind speed/direction, temperature, hour of the day, weekday and Julian day as predictors. This model is then used to predict concentrations from March 2020, which can be seen as the normal concentrations expected if no intervention had taken place. The model now also takes into some account the long-term reduction in NOx concentrations due to the ongoing decrease in NOx emissions.

The method for simulating the normal concentration is our current best estimate. However, as things progress this method will evolve and get refined.

The simulated and measured NO_2 concentrations are shown below. The orange line represents the modelled concentrations, and the purple line represents the measured concentrations. Before 23rd March 2020, when lockdown was enforced, the measured and modelled are similar, suggesting that the measured concentrations are comparable to the usual levels at this time of the year and under normal business activities. The modelled (i.e. 'business as usual') NO_2 and NOx concentrations are predominately higher than the measured concentrations from 23rd March to July, which suggests that reduced emissions from traffic and industry are being seen in the measurements.

Monthly Change in Pollutant Concentrations

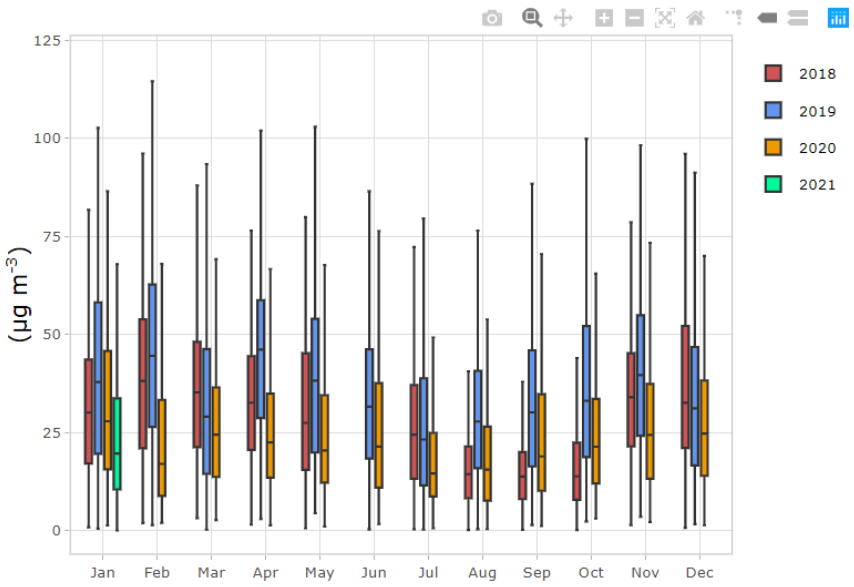
To put the magnitude of the decrease into perspective, the monthly mean difference in measured and modelled “business as usual” (BAU) concentrations are shown below. Pink bars represent measurements greater than modelled concentrations and green bars represent measurements lower than modelled concentrations.



Monthly Average Pollutant Concentrations

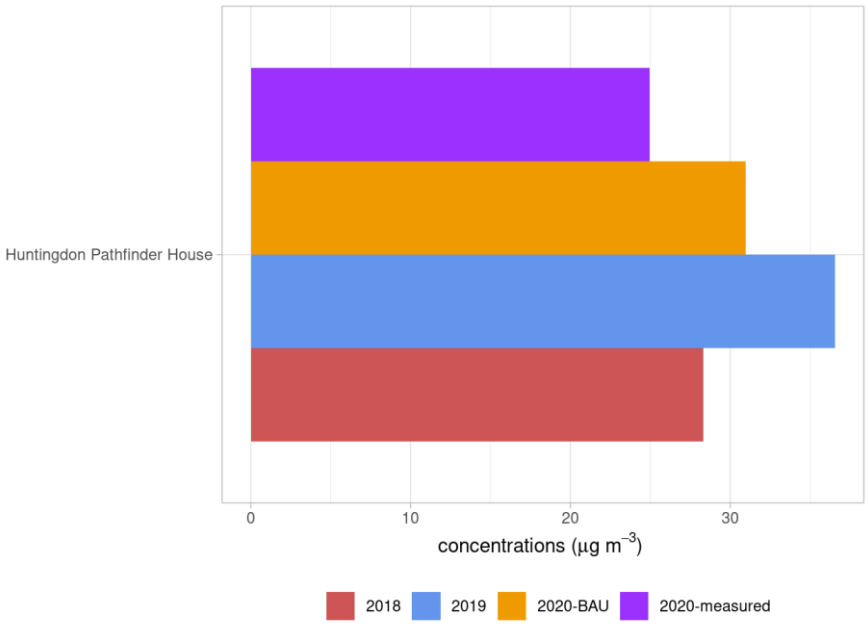
The plots below are box and whisker plots to show the distribution in monthly concentrations for each pollutant measured. The boxes represent the interquartile range

(IQR) ranging from the lower quartile (25th percentile) to the upper quartile (75th percentile). The horizontal line within each box represents the median (50th percentile). The whiskers extend to the maximum and minimum values within the median ± (1.5 x IQR). Values outside the median ± (1.5 x IQR) are not shown here.



Annual Average Pollutant Concentrations

The annual average concentrations for 2018 and 2019 are shown below for each site and pollutant, along with the BAU and measured averages for 2020.



This report assists in demonstrating the reduction in NO_2 due to Covid restrictions.

Opportunities Presented by COVID-19 upon LAQM within Huntingdonshire

No LAQM related opportunities have arisen as a consequence of COVID-19 within Huntingdonshire.

Challenges and Constraints Imposed by COVID-19 upon LAQM within Huntingdonshire

As a predominantly rural district HDC did not experience any issues with continuing the air quality monitoring regime. The AQMS continued operating, and servicing and QA/QC audits continued as required. Diffusion Tubes were replaced in line with the Defra calendar. The main challenge was due to the reallocation of Council resources during 2020 and new ways of working. As discussed above, the main areas this impacted upon were a delay in the revocation process for AQMA's 2, 3 and 4; and the delayed deployment of the new mobile AQY monitor (although reduced traffic may have led to misleading results). I would class this as **No Impact** under the impact matrix below.

Table F 1 – Impact Matrix

Category	Impact Rating: None	Impact Rating: Small	Impact Rating: Medium	Impact Rating: Large
Automatic Monitoring – Data Capture (%)	More than 75% data capture	50 to 75% data capture	25 to 50% data capture	Less than 25% data capture
Automatic Monitoring – QA/QC Regime	Adherence to requirements as defined in LAQM.TG16	Routine calibrations taken place frequently but not to normal regime. Audits undertaken alongside service and maintenance programmes	Routine calibrations taken place infrequently and service and maintenance regimes adhered to. No audit achieved	Routine calibrations not undertaken within extended period (e.g. 3 to 4 months). Interruption to service and maintenance regime and no audit achieved
Passive Monitoring – Data Capture (%)	More than 75% data capture	50 to 75% data capture	25 to 50% data capture	Less than 25% data capture
Passive Monitoring – Bias Adjustment Factor	Bias adjustment undertaken as normal	<25% impact on normal number of available bias adjustment colocation studies (2020 vs 2019)	25-50% impact on normal number of available bias adjustment studies (2020 vs 2019)	>50% impact on normal number of available bias adjustment studies (2020 vs 2019) and/or applied bias adjustment factor studies not considered representative of local regime
Passive Monitoring – Adherence to Changeover Dates	Defra diffusion tube exposure calendar adhered to	Tubes left out for two exposure periods	Tubes left out for three exposure periods	Tubes left out for more than three exposure periods
Passive Monitoring – Storage of Tubes	Tubes stored in accordance with laboratory guidance and analysed promptly.	Tubes stored for longer than normal but adhering to laboratory guidance	Tubes unable to be stored according to be laboratory guidance but analysed prior to expiry date	Tubes stored for so long that they were unable to be analysed prior to expiry date. Data unable to be used
AQAP – Measure Implementation	Unaffected	Short delay (<6 months) in development of a new AQAP, but is on-going	Long delay (>6 months) in development of a new AQAP, but is on-going	No progression in development of a new AQAP
AQAP – New AQAP Development	Unaffected	Short delay (<6 months) in development of a new AQAP, but is on-going	Long delay (>6 months) in development of a new AQAP, but is on-going	No progression in development of a new AQAP

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
AQMS	Air Quality Monitoring Station
ASR	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
HDC	Huntingdonshire District Council
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm 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

- Local Air Quality Management Technical Guidance LAQM.TG16. April 2021. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG16. May 2016. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.