



Review of Huntingdon Air Quality Management Area

Huntingdonshire District Council

September 2025

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1. Introduction

This report has been developed in order to review the Air Quality Management Area (AQMA) within the district of Huntingdonshire; demonstrate where compliance is being achieved; and consider action to be taken.

1.1 Local Air Quality Management (LAQM)

The air quality objectives set out in the Air Quality (England) Regulations 2000 (SI 928), as amended by the Air Quality (England) (Amendment) Regulations 2002 (SI 3043), provide the statutory basis for the air quality objectives under the LAQM regime in England. A summary of the air quality objectives in England can be seen in table 1 below:

Table 1 – Summary of Air Quality Objectives in England:

Pollutant	Objective	Averaging Period
Nitrogen Dioxide - NO ₂	200 µg/m ³ not to be exceeded more than 18 times/year	1-hour mean
	40 µg/m ³	Annual mean
Particles - PM ₁₀	50 µg/m ³ not to be exceeded more than 35 times/ year	24-hour mean
	40 µg/m ³	Annual mean
Sulphur Dioxide (SO ₂)	266 µg/m ³ not to be exceeded more than 35 times/year	15 minute mean
	350 µg/m ³ not to be exceeded more than 24 times/year	1 hour mean
	125 µg/m ³ not to be exceeded more than 3 times/year	24 hour mean

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

Source: Defra Policy Guidance (PG22) available at: [LAQM-Policy-Guidance-2022.pdf \(defra.gov.uk\)](https://www.defra.gov.uk/policy-guidance/2022/01/laqm-policy-guidance-2022.pdf)

These are the same as the limit values specified within the Air Quality Standard Regulations 2010 (as amended), which transposed the European Union's (EU) Directive on ambient air quality and cleaner air for Europe (2008/50/EC).

Under Part IV of the Environment Act 1995, Section 82 requires local authorities to review and assess local air quality and determine whether or not the objectives are likely to be achieved. The LAQM programme places a duty on local authorities to report their progress regarding this on an annual basis to the Department for

Environment, Food and Rural Affairs (DEFRA). This is referred to as the Annual Status Report (ASR) and Huntingdonshire District Councils' can be viewed here [Air Quality - Huntingdonshire.gov.uk](https://airquality.huntingdonshire.gov.uk).

Where air quality objectives are not being achieved, or are not likely to be achieved, Sections 83 & 83A of the Environment Act 1995 require local authorities to designate an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the pollution reduction measures to improve local air quality in order to achieve the objectives.

2. Monitoring

Huntingdonshire District Council (HDC) undertake air quality monitoring across the district using both automatic air quality monitoring and passive diffusion tube sampling methods in line with government guidance to enable the results to be utilised for LAQM reporting purposes.

2.1 Automatic Monitoring

Huntingdonshire District Council operate a static road-side Air Quality Monitoring Station (AQMS) located on the Huntingdon ring road, within the Huntingdon AQMA. The location was chosen in an attempt to monitor the worst level of pollution, whilst considering access, land availability and service requirements.

The AQMS monitors both Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀ and PM_{2.5}) and the analysers are regularly serviced and audited by external independent specialists. A review of the equipment took place in 2018, resulting in replacement of the analysers in April 2019 to ensure improved accuracy and reliability in the monitoring data.

2.2 Non-automatic NO₂ diffusion tube monitoring

Until 2024 Huntingdonshire District Council completed non- automatic (passive) monitoring of NO₂ at 58 sites across the district, with the use of Diffusion Tubes, in 2025 this was reduced to 44 sites, several of which are located within the Huntingdon AQMA, as shown in Figure 1.

Funding for additional Diffusion Tubes in 2017 and 2019 increased the number of original monitoring sites, in order to assist in assessing the impact of relocating the A14. These were a requirement under the A14's Development Consent Order (DCO) and were in place until early 2025.

A further internal review of the diffusion tube network in 2018 identified an additional 7 sites and removal of 2. These were deployed in January 2019, bringing the total to 58 with the inclusion of the additional A14 tubes.

Whilst diffusion tubes are not able to provide an hourly mean for comparison with the hourly mean objective, government guidance¹ states:

'A study carried out on behalf of Defra and the Devolved Administrations identified that exceedances of the NO₂ 1-hour mean are unlikely to occur where the annual mean is below 60µg/m³. Analysis of data in more recent years has shown local authorities should continue to use this assumption where NO₂ 1-hour mean monitoring data are not available (typically if monitoring NO₂ using passive diffusion tubes). It should be noted that this relationship is based upon observations made predominantly at roadside and kerbside monitoring sites where road traffic is the primary source of emissions'

Therefore, if the annual mean is less than 60µg/m³ it can be assumed that an exceedance of the 1-hour mean objective for NO₂ was unlikely to have occurred.

¹ DEFRA Local Air Quality Management Technical Guidance 2022 Section 7.97

The monitoring results from the diffusion tubes are bias adjusted and distance corrected where necessary, in line with Defra guidance. More details regarding this can be found in the ASR at [Air Quality - Huntingdonshire.gov.uk](https://www.huntingdonshire.gov.uk/AirQuality).

3. Huntingdonshire District Council's Air Quality Management Area (AQMA)

Following the revocation of the St Neots, Brampton and A14 Hemingford to Fenstanton AQMA's in 2024, Huntingdonshire currently has one remaining Air Quality Management Area, located within Huntingdon.

Table 2 below provides a summary regarding this area and Figure 1 identifies the locations and monitoring points. The AQMA was declared due to Nitrogen Dioxide (NO₂), primarily due to vehicle emissions.

Table 2: Information regarding Huntingdonshire District Council's Air Quality Management Area's:

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	City / Town	Description	Level of Exceedance (maximum monitored/modelled concentration at a location of relevant exposure (RE))	
					At Declaration	Most recent year (2024)
HDC Air Quality Management Area Order No. 1 (Huntingdon: Nitrogen Dioxide)	16th November 2005 - amended 29th October 2007	NO ₂ Annual Mean 40 µg/m ³	Huntingdon	An area encompassing approximately 2831 domestic properties affected by the A14, A141, B1044, B1514 and Huntingdon Inner Ring Road.	<u>50.2</u> µg/m ³ (2004) At 96 Orthwaite	21.8 µg/m ³ by diffusion tube & 23 µg/m ³ by the continuous analyser at Pathfinder House*

* Not calculated to RE point, which would therefore be even lower than the figure shown

Figure 1 Huntingdon AQMA and monitoring locations



4. Current situation

4.1 Huntingdon

Historically the main sources of pollution within the Huntingdon AQMA were traffic on the A14 and the ring road. Works for re-routing the A14 resulted in a new section of road opening at the end of 2019, taking the majority of heavy traffic away from Huntingdon. This coincided with the impacts of the Covid pandemic and various lock downs in 2020 and 2021, which affected traffic figures. The A14 works to remove the viaduct within Huntingdon centre and fully open the A1307 were completed in May 2022 with all associated traffic restrictions lifted on the 30th of that month, marking the end of the A14 relocation project. Therefore, traffic levels may have been impacted during the first few months of 2022, as roadworks could have influenced drivers' behaviour. This, coupled with the likelihood that peoples travelling habits may have changed since the pandemic, makes it difficult to assess the impact of the relocation of the A14, however, it is considered it has had a beneficial impact on pollution levels within Huntingdon.

Air quality monitoring results from previous years have been in line with national trends and shown a predominantly year on year reduction in Nitrogen Dioxide (NO₂), however following the expected dip in pollution levels during 2020, due to control measures associated with Covid-19, overall results slightly increased in 2021 and this trend continued into 2022, with another slight increase at the majority of sites, however in 2023 and 2024 there have been further reductions.

The highest concentration measured by diffusion tube within the Huntingdon AQMA during 2024 was at Pathfinder House (PFH) with the mean result of the triplicate tubes at 21.8µg/m³. This compares to a figure of 24µg/m³ in 2023 and remains well within the objective of 40µg/m³. All of the sites remain well below the levels measured in 2019, before Covid and the completion of the A14 works.

The data demonstrates that in 2024 all sites met the NO₂ objective of 40µg/m³ and the continuing low trend is likely due to the relocation of the A14 and a change in travel behaviour.

Following completion of the A14 works, data has been gathered during 'normal' traffic flows and the AQMA in Huntingdon has been reviewed in line with LAQM Technical Guidance (TG22). Even with the works in Huntingdon on the viaduct removal and the A1307 impacting the earlier part of 2022 Defra consider the data for 2022 is appropriate to be used in assessing compliance. In line with paragraph 3.57 of TG22 if compliance is achieved for three consecutive years, revocation should be considered.

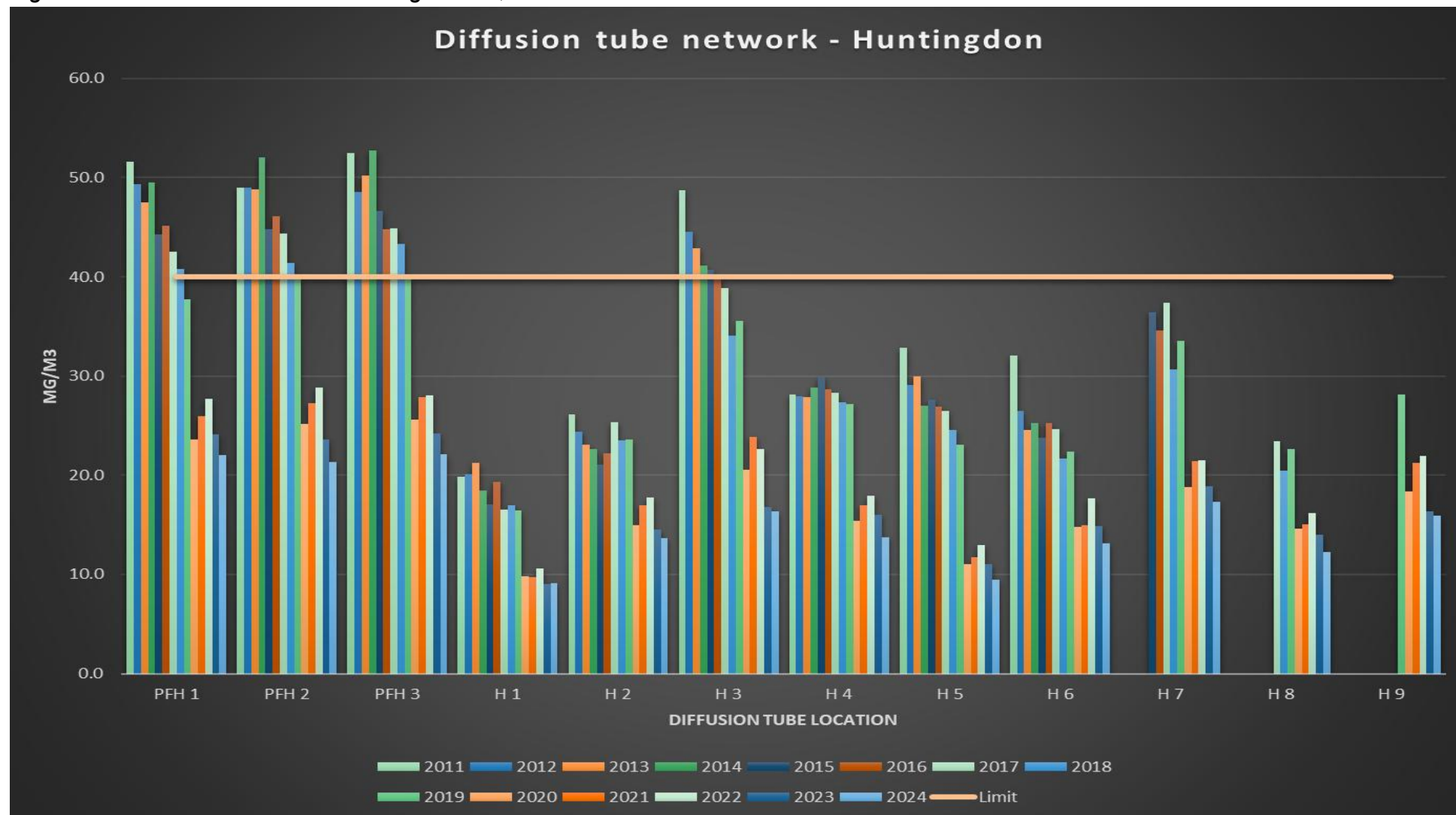
Additional information regarding the diffusion tubes can be found in Appendix C of the most recent ASR located here: [Air Quality - Huntingdonshire.gov.uk](https://www.huntingdonshire.gov.uk/AirQuality).

The trend in air quality within the Huntingdon AQMA can be seen in Figure 2 on the following page.

When assessing the results with regard to the air quality objectives, the information demonstrates that there have been no breaches of the 40µg/m³ NO₂ limit within the Huntingdon AQMA since 2019.

There were no annual means greater than 60µg/m³, indicating that an exceedance of the 1-hour mean objective was unlikely.

Figure 2 Annual mean trend in Huntingdon AQMA 2011 – 2024:



Full results can be seen in Appendix A.

5. Reasons for improvement

The AQMA was designated due to pollution from road traffic. The government recognises that emissions of pollutants to air from the transport sector have shown a consistent decline over time, most likely due to the introduction of stricter European emission standards and turnover of vehicles, resulting in the gradual removal of older more polluting vehicles from the roads. This has been acknowledged in the UK Informative Inventory Report on Atmospheric Emissions 1990 – 2021 published in March 2023² which shows reducing trends in emissions across the UK sectors, indicating a steady decline in emissions from NO_x (as NO₂) amongst others. Low NO_x boilers and stricter industrial emission limits have also assisted in reducing overall NO₂ levels.

The relocation of the A14 has also improved the air quality in the Huntingdon AQMA.

6. Huntingdonshire District Council's Air Quality Action Plan (AQAP)

A joint Air Quality Action Plan was completed in 2009 between South Cambs, Cambridge City and Huntingdonshire District Council with the aim to consider air quality impacts collaboratively over the broader local area and enable consideration of schemes with a wider impact. The action regarding highway improvements in St Neots and the relocation of the A14 were aims within the AQAP, and both have been implemented. Defra has stated that the AQAP document requires updating and HDC is required to either provide a new AQAP or an Air Quality Strategy, depending on if an AQMA remains in place.

7. Requirements for revoking an AQMA

The monitoring sites within the AQMA have been meeting the air quality objectives since 2020.

Under the Environment Act 1995 a local authority does not necessarily have a duty to revoke an AQMA once the air quality objectives are met. It is at that Local Authorities discretion to

² [UK IIR 2023 Submission \(defra.gov.uk\)](https://defra.gov.uk)

revoke if following a review, it is considered air quality objectives are likely to be met and will continue to do so.

The process for revoking an AQMA is outlined in the DEFRA Local Air Quality Management Policy and Technical Guidance 2022 (LAQM.PG(22) & LAQM.TG(22)). The main points are highlighted in the following table:

Table 3: Process for revoking an AQMA:

Guidance	Section	Requirement	HDC compliant?
LAQM PG(22)	4.10	Air quality objectives are being met and will continue to do so. Compliance with objectives should be for 3 or more years.	Compliant
	4.11	Publicise the revocation to ensure the public and local businesses are aware of the situation	Required Can be placed on website
	4.12	Following a revocation, (where this would result in that local authority no longer having any AQMA's) a local air quality strategy should be put in place to ensure air quality remains a high-profile issue and enable a quick response should there be any deterioration in condition.	Required This will be completed if the Huntingdon AQMA is revoked
LAQM TG(22)	3.53	The decision to amend or revoke an AQMA should only be taken following a detailed study, which should set out in detail all the available information used to reach the decision, with the same degree of confidence as was provided for the original declaration.	Compliant With the exception of modelling, this report provides the relevant information
	3.55	In some instances, if compelling evidence exists, detailed modelling to support the decision to amend/revoke an AQMA may not be necessary and an AQMA may be amended or revoked following a	Compliant This report

Guidance	Section	Requirement	HDC compliant?
		screening assessment or on the basis of robust monitoring evidence	
	3.56	Pollutant concentrations may vary significantly from one year to the next, due to the influence of meteorological conditions. Therefore, before revoking an AQMA based on measured pollutant concentrations, the authority needs to be reasonably certain that any future exceedances (that might occur in more adverse meteorological conditions) are unlikely. For this reason, it is expected that authorities will need to consider measurements carried out over several years, national trends in emissions, and local factors that may affect the AQMA, including measures introduced as part of the Air Quality Action Plan, together with information from national monitoring on high/low pollution years.	Compliant General reduction and actions taken (relocation of A14) resulting in lower levels of pollution
	3.57	The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO ₂ monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO ₂ concentrations being lower than 36µg/m ³ (i.e. within 10% of the annual mean NO ₂ objective).	Compliant Concentrations significantly lower
	3.57	There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period.	Not compliant Monitoring within Huntingdon demonstrates

Guidance	Section	Requirement	HDC compliant?
			compliance for more than 5 years, however 2020 and 2021 were influenced by Covid restrictions and therefore should carry less weighting.

Therefore, in order to revoke any AQMA, Huntingdonshire District Council will need to provide either:

- A screening assessment with robust monitoring evidence over several years to demonstrate current and future year compliance, or
- A detailed measurement and modelling assessment similar to that undertaken to declare the AQMA

This document details robust monitoring evidence over a number of years to demonstrate current compliance for the AQMA.

8. Impact of revoking an AQMA

The main benefits of having an AQMA in place are that applicants who propose developments within or near to these designated areas have to assess the potential impact to ensure they do not cause an increase in air pollution levels to exceed the objectives. The designation should also provide the council with more influence with regard to transport layout and infrastructure considerations, for example, highlighting hotspots and working in partnership with highways to ensure improvements, such as the St Neots change to the traffic light system and strategic

highway improvements which have reduced the air quality issues at that location, and the A14 realignment.

However, with the continued compliance there is a risk developers may query the council's requirements and applicants for smaller developments are required to provide details that could be viewed as excessive. It should also be noted that large scale developments are often accompanied with Air Quality Impact Assessments and if considered appropriate, officers would ask for this information during the planning process.

The proposed Local Plan for Huntingdonshire to the year 2036 contains the Council's requirements regarding air quality which is dealt with through policy LP36 as follows:

LP 36

Air Quality

A proposal will need to be accompanied by an Air Quality Assessment where:

- a. it is for large scale major development, defined in the 'Glossary';
- b. it would potentially conflict with an Air Quality Action Plan;
- c. any part of the site is located within 50m of an Air Quality Management Area (AQMA) or a Clean Air Zone (CAZ);
- d. a significant proportion of the traffic generated would go through an AQMA or a CAZ; or
- e. any part of the site is located within 100m of a monitoring site where the annual mean level of nitrogen dioxide exceeds $35\mu\text{g}/\text{m}^3$.

An Air Quality Assessment should be proportionate to the nature and scale of the proposal and the level of concern about air quality, but should assess:

- f. the existing state of air quality surrounding the site;
- g. how the proposal could affect air quality during construction and operational phases;
- h. the extent to which people could be exposed to poor air quality; and
- i. how biodiversity could be affected by changes in air quality as a result of the proposal.

A proposal will need to be accompanied by a low emissions strategy where the air quality assessment shows that the proposal would:

- j. have a significant adverse effect on air quality;
- k. have an adverse effect on the air quality factors that led to the affected AQMA being designated;
- l. cause a significant increase in the number of people that would be exposed to poor air quality; or
- m. lead to a designated nature conservation site or protected species that is sensitive to poor air quality being adversely affected by changes in air quality.

The low emissions strategy will include measures that mitigate the impacts of the proposed development by contributing to the improvement of air quality and/ or the reduction of emissions relating to the designation of the affected AQMA/ CAZ, prioritising actions identified in relevant Air Quality Action Plans/ CAZ action plans or equivalent documents.

In other circumstances, where identified as necessary based on a transport assessment/ statement, measures to reduce air pollution arising from traffic and traffic congestion may also be required.

The removal of the AQMA would impact on the number of sites potentially having to provide an assessment under this policy under sections c. and d., however section e. ensures where NO₂ figures are close to the objective an assessment would be required to make sure the impact can be fully considered. It should also be noted that section a. covers higher risk sites and both national government and other guidance (such as Land-Use Planning & Development Control: Planning for Air Quality by IAQM & EPUK) also provide advice on when the impact of development requires a more detailed assessment in respect of air quality impacts.

Provision of infrastructure for electric vehicles is covered within the *'Parking provision and vehicle movement'* section on page 79 of the Local Plan, as paragraph 5.60 states: *'It is suggested that at least one charging point for an electric vehicle should be provided where a proposal includes 20 or more parking spaces and that 1 charging point is provided for every 50 spaces'*.

Improving air quality is a priority for Government. Poor air quality results in adverse health impacts, as well as wider costs to society, for instance to the National Health Service and environmental impacts threatening habitats and biodiversity. Air quality continues to be an indicator for the Public Health Outcomes Framework and this ensures that it will remain high on the agenda with an emphasis on partnership working to minimise air quality impacts. Therefore whilst keeping the Orders in force could offer a greater check on developments that have the potential to significantly impact on air quality, this can be addressed through the planning regime as these developments should have to demonstrate that they would not lead to unacceptable levels of air pollution or a breach in air quality objectives.

It should also be noted that if air quality worsens after removal of the AQMA status and breaches of the objectives occur, HDC would have a statutory duty to declare an AQMA covering the necessary area.

9. The future

If an AQMA is revoked, our air quality duties do not end:

- Monitoring for nitrogen dioxide will continue at locations around the district, including areas that are currently within the AQMA.
- NO₂, PM₁₀ & PM_{2.5} will be monitored by the analysers located at Pathfinder House.
- Other monitoring provisions will continue to be explored to ensure we gain the best information possible.
- Annual reports containing monitoring data will continue to be published on the council's website and submitted to Defra.
- Air quality will remain a consideration in planning policy and future planning permissions across the district.
- If the AQMA is revoked, an Air Quality Strategy will be developed in line with government guidance³.
- As well as pollution from road vehicles other pollution aspects will continue to be considered including pollution from industry, particulates from wood burning stoves and construction etc.

9.1 Emerging Issues

- Relocation of the A14 – Additional monitoring has been introduced in areas where traffic levels may increase following the realignment of the A14. This will enable an assessment of the general impact in areas such as Ermine Street.

³ [LAQM-TG22-August-22-v1.0.pdf \(defra.gov.uk\)](https://www.defra.gov.uk/laqm-tg22-august-22-v1.0.pdf)

10. Summary & Recommendation

When comparing Huntingdon AQMA to the NO₂ air quality objectives:

- Annual mean air quality objective of 40 µg/m³
- 1 hour mean air quality objective of 200 µg/m³, not to be exceeded more than 18 times per year.

Overall it can be seen from Figure 5 that there has been a steady decline in the levels of NO₂ measured with most monitoring sites consistently meeting the air quality objectives for a number of years. Defra advise where there have been no exceedances for three years local authorities should consider revocation and that there shouldn't be any AQMA's which have been in compliance for 5 years.

10.1 Recommendation:

Revoke but have an air quality strategy to ensure developers are aware of Huntingdonshire District Council's requirements and air quality impacts are considered and mitigated as far as reasonably possible. Continue monitoring and investigate alternative methods of monitoring within the town.

Pollution levels continue to remain well within the objectives demonstrating continued compliance and the data gained meets the requirements of the government guidance, the AQMA should be put forward for revocation and an Air Quality Strategy completed. Traffic on the ring road will remain a focus within any future strategy and alternative methods of control are in place.

There is a need to ensure the downward trend in air pollution continues, and air quality impacts are minimised as far as possible with the use of clever and innovative design and mitigation measures for new development when going through the planning regime. An Air Quality Strategy will be introduced to ensure air quality impacts remain a high-profile issue and that pollution levels are monitored.

Appendix A – Annual Mean NO₂ Monitoring Results:

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
					2020	2021	2022	2023	2024
PFH	Roadside	Automatic	99.66	99.66	25	27	28.2	24.98	23
PFH 1, PFH 2, PFH 3	Roadside	Diffusion Tube	92.5	92.5	24.8	26.3	28.2	24.0	21.8
Huntingdon 1	Suburban	Diffusion Tube	92.5	92.5	9.8	9.8	10.6	9.1	9.1
Huntingdon 2	Kerbside	Diffusion Tube	92.5	92.5	14.9	17.0	17.7	14.6	13.6
Huntingdon 3	Kerbside	Diffusion Tube	92.5	92.5	20.5	23.9	22.6	16.8	16.3
Huntingdon 4	Kerbside	Diffusion Tube	92.5	92.5	15.4	17.0	17.9	16.0	13.7
Huntingdon 5	Roadside	Diffusion Tube	92.5	92.5	11.0	11.7	12.9	11.0	9.4
Huntingdon 6	Roadside	Diffusion Tube	92.5	92.5	14.8	14.9	17.6	14.9	13.1

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
					2020	2021	2022	2023	2024
Huntingdon 7	Roadside	Diffusion Tube	92.5	92.5	18.8	21.4	21.5	18.9	17.3
Huntingdon 8	Roadside	Diffusion Tube	92.5	92.5	14.6	15.1	16.2	14.0	12.2
Huntingdon 9	Roadside	Diffusion Tube	84.9	84.9	18.3	21.2	21.9	16.4	15.9

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

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

(3) 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.