2025 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: 30 June 2025

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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Protection Team at Chichester District Council (CDC) with the support and agreement of the following officers and departments:

West Sussex County Council Highways, Transport and Planning departments

This ASR has been approved by:

Andrew Frost – Director Planning and Environment, CDC

Cllr Jonathan Brown – Deputy Leader of the Council and Cabinet Member for Environmental Strategy, CDC

This ASR has not been signed off by a Director of Public Health but has been made available to the appropriate officer and relevant comments have been included within the report.

If you have any comments on this ASR please send them to Kate Simons at:

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Executive Summary: Air Quality in Our Area

Air Quality in <Local Authority Name>

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year[1]. Air pollution is recognised as a contributing factor in the onset of heart disease and lung cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

Table ES 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport engines and energy generation.
Sulphur Dioxide (SO_2)	Sulphur dioxide (SO_2) is a corrosive gas which is predominantly produced from the combustion of coal and/or crude oil.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry, car engines and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter or $PM_{2.5}$ are particles under 2.5 micrometres.

Air quality across Chichester district is generally good however there are roads in Chichester city and within Midhurst where the air quality is less good.

The main pollutant in Chichester district is nitrogen dioxide (NO_2), the key local source being road traffic. Several roads in Chichester and Midhurst are affected by elevated concentrations of NO_2 (exceeding National Objectives) and Air Quality Monitoring Areas (AQMAs) have had to be declared. The two extant AQMAs are at the following locations:

- St Pancras, Chichester (declared in 2007)

[1] The Royal College of Physicians' report A Breath of Fresh Air: Responding to the health challenges of modern air pollution suggests the figure may be as high as £50 billion

- Rumbolds Hill, Midhurst (declared in 2020)

See web link Air quality - Chichester District Council

The latest monitoring data indicates that concentrations of NO_2 have decreased over the last five years and air quality in the AQMA at Rumbolds Hill, Midhurst was in compliance with National Objectives during 2024. As concentrations within this AQMA have continued to be less than 36µg/m^3 for three years, it is intended that the AQMA will be revoked in 2025/6. Concentrations of NO_2 within the St Pancras AQMA in Chichester were also in compliance with the National Objectives during 2024. If concentrations continue to be less than 36µg/m^3 for the next two years, then it is intended that the AQMA will be revoked in 2027.

At the beginning of 2024, a new filter dynamic measurement system (FDMS) measuring PM_{10} and $PM_{2.5}$ was commissioned and installed at the Stockbridge monitoring station using DEFRA air quality grant monies. A new air conditioning unit was also installed at the same time. The diffusion tube network has been expanded with the introduction of two new tube locations (Tangmere and Westgate, Chichester – data from these tubes is reported in this ASR).

The Council continues to work with partners both internal and external to improve air quality. Work continues to develop a detailed design for one of the Chichester District Council (CDC) Chichester City Local Cycling and Walking Infrastructure Plan (LCWIP) routes (known as Route K) in the west of the city. This work is being undertaken by West Sussex County Council (WSCC) and its consultants in partnership with CDC. The Council has been supporting WSCC on a number of Strategic Transport Investment Programme (STIP) schemes aimed at increasing walking, cycling and wheeling in the district including schemes at Oaklands Way in Chichester, A285 Chichester to Tangmere corridor improvements, A286 Selsey Tram road crossing improvements and a scheme using the A259 corridor from Chichester to Bognor Regis. The council is also working on a LCWIP scheme (part of LCWIP Route B) to implement a route north-south through Oaklands Park, Chichester. The Council continues to work with WSCC and its delivery partner Connected Kerb for the roll out of EV charging points both in Council car parks and in on-street locations, some of which are already installed and operational.

The Council is supporting WSCC, NH, other partners (Sustrans) and the community towards the delivery of the A259 Chichester to Emsworth Active Travel improvement scheme known as Bourne Active Travel Scheme (BATS) (previously known locally as Chemroute).

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, there are some areas where local action is needed to protect people and the environment from the effects of air pollution.

The Government's Environmental Improvement Plan[2] sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for fine particulate matter ($PM_{2.5}$), the pollutant most harmful to human health. The

[2] Defra. Environmental Improvement Plan 2023, January 2023

Air Quality Strategy[3] provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero[4] details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal transport and the majority of Air Quality Management Areas (AQMAs) are designated due to elevated pollution concentrations heavily influenced by transport emissions.

Key completed actions by CDC during 2024 are as follows:

- Continued to work with WSCC and Connected Kerb (CK) for the delivery of an on-street - and in Council car parks - enhanced network of electric vehicle charging points (EVCPs). We are working with our Car Parks team on this long-term project and the contractor delivered 12 on street EVCP last year and we anticipate significant progress in the coming year.
- To encourage use of the electric pool cars and electric pool bikes by staff for work related journeys. Money previously planned to extend the on-street, Car Club fleet was diverted towards extending the CDC staff EV pool car fleet pilot for a further two years (October 2024 – September 2026). Total mileage of electric pool cars has reached 17,379 miles since the cars were acquired and promotion of the staff pool bikes is delivered through CDC's intranet. The vehicles are also open to public use out of hours.
- The West Sussex Active Travel Strategy 2024-2036 and the West Sussex Local Cycling and Walking Infrastructure Plan (LCWIP) were formally adopted by West Sussex County Council (WSCC) in September 2024. Their LCWIP features six long distance routes that complement routes featured in the district and borough councils' LCWIPs. Three of the routes serve the city of Chichester. Both documents are available on the WSCC website and Chichester District Council (CDC) approved consultation responses are available in the Minutes of Environment Panel and Cabinet.
- We continued to run and maintain two air quality monitoring stations during 2024 and have published the monitoring information at http://sussex-air.net – this work is used within the air Alert forecasting service (see measure 17 in Table 2.2). A filter dynamic measurement system (FDMS) PM_{10}/$PM_{2.5}$ analyser was commissioned in January 2024 and data from the analyser is reported in section 3 of this report.
- We continue to monitor air quality at 22 sites using NO_2 diffusion tubes including two new sites (Westgate in Chichester and A27 at Tangmere).
- We continue our partnership working with WSCC, Sussex-Air and Chichester & District Cycle Forum.
- The Council has renewed its Easit[5] membership (a sustainable travel benefit scheme) and continues to promote the Lease car scheme (including lease of EVs)

[3] Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

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

[5] CDC is a member of the Easit Network which entitles staff to various travel related discounts

as staff benefits to encourage non-car mode travel and use of zero-emission vehicles. Both measures were delivered by the air quality officer.

- The council has placed an order for two electric vans for Parking Services so making their whole fleet electric. The electric fleet at the Council now comprises 9 vehicles.

Conclusions and Priorities

The 2024 monitoring of NO_2, PM_{10} and $PM_{2.5}$ shows no exceedances of air quality standards at either of the two real time monitoring stations. At all the diffusion tube locations the UK's NO_2 air quality annual mean Objective of 40 µg/m^3 was met (both within and outside AQMAs).

There are no new developments under construction within the district that will have a significant air quality impact in the future.

The Council Air Quality Action Plan (AQAP) was updated during 2021, and the Council's priorities for the next five years are detailed in the document and summarised in Section 2.2 of this report.

How to get Involved

The public can get involved by supporting behavioural change initiatives such as car sharing, walking, cycling, using public transport, joining the Car Club, buying zero emission vehicles for personal and commercial travel and turning petrol/diesel engines off when stationary. Other initiatives such as minimising wood burning, only burning dry, well-seasoned wood and composting instead of having bonfires can also reduce air pollution.

The Chichester and District Cycle Forum provides information on local cycling opportunities and campaigns on behalf of cyclists. The Forum is open to the public and further information can be obtained by emailing environmentalprotect@chichester.gov.uk

The Environmental Protection Team regularly provides updates to Members of the Council via its Environment Panel regarding progress on implementing the AQAP and provides details on the staff intranet/website regarding air quality issues and campaigns. An officer from the EP team attends a sub-group of the Manhood Peninsular Partnership meetings (called GLaM[6]) which works to encourage and enable active travel on the Manhood Peninsular.

[6] GLaM – Green Links across the Manhood Peninsula

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1 Local Air Quality Management

This report provides an overview of air quality in Chichester District during 2024. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), 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 order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Chichester District Council (CDC) 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 18 months. The AQAP should specify how air quality targets will aim to be be achieved and maintained and provide dates by which measures will be carried out.

A summary of AQMAs declared by CDC can be found in Table 2.1. The table presents a description of the two AQMAs that are currently designated within Chichester District during 2024. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of the AQMAs and also the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO_2 annual mean

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	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
St Pancras AQMA	17-May-07	NO_2 Annual Mean	An area along St Pancras, Chichester between Eastgate Square and New Park Road. Note St Pancras forms a street canyon in this section.	NO	48.3	33.7 No exceedance	1 year[7]	CDC AQAP 2022	https://www.chichester.gov.uk/pollutioncontrolairquality

[7] The diffusion tubes at St Pancras were compliant in 2020 however traffic volumes were affected by the Covid pandemic during 2020. Since that time the tubes have remained within 10% of the Air Quality Objective value and, in accordance with the DEFRA guidance, cannot be revoked until the results are below 36µg/m^3 for three years or more.

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	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
Rumbolds Hill AQMA	17-Jan-20	NO_2 Annual Mean	An area along Rumbolds Hill, Midhurst between the A272 at its southern end and the junction of North Street (A286) and Knockhundred Row at its northern end.	NO	42	31.8 No exceedance	3 years	CDC AQAP 2022	as above

☒ **CDC confirms the information on UK-Air regarding their AQMAs is up to date.**

☒ **CDC confirms that all current AQAPs have been submitted to Defra.**

2.2 Progress and Impact of Measures to address Air Quality in Chichester District

Defra's appraisal of last year's ASR included the following comments *(CDC responses in italics):*

- Table 2.1 and other relevant sections of the report requires amendment to reflect that monitoring within the St Pancras AQMA should be continued until duplicate monitoring sites 10a and 10b are compliant with the annual mean NO_2 Objective for three consecutive years (ie below 36 µg/m^3) – *amendments made in final 2024 report and the Council will continue monitoring at this location until compliance with the Objective is achieved.*
- The Council is encouraged to get the public health team to sign off the report – *the Council will consult the public health team to try to secure this in future.*
- There is a minor inconsistency between the data capture presented in Table A.3 – the valid data capture for monitoring period should be the same as the valid data capture for 2023 at all monitoring locations – *this will be amended in the final ASR 2024 and in future reports.*
- In Table B.1, the national bias factor selected for 2023 has not been included in the heading of the 17th column. This should be added in future ASRs – *this has been amended and will be addressed in future reports.*
- Based on the evidence provided by the local authority the conclusions reached in the report are **accepted** for all sources and pollutants, on the proviso **the report is amended to reflect the current technical guidance, which indicates that the St Pancras AQMA cannot yet be revoked. Please see the commentary for additional information**. Following the completion of this report, Chichester District Council should submit an Annual Status Report in 2025 - *The required amendments were made to the final ASR for 2024, and an ASR has been completed for 2025.*

CDC and partners have taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress, aborted or planned are set out in Table 2.2. Twenty-four measures are included within Table 2.2, with the type of measure and the progress CDC has made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also described within Table 2.2.

More detail on these measures can be found in our respective Air Quality Action Plan (AQAP), Chichester City Local Cycling and Walking Infrastructure Plan (LCWIP) and the WSCC Connected Kerb (CK) project[8]. Key completed measures are:

- To continue to work with WSCC and CK for the delivery of an on-street and in Council car parks enhanced network of electric vehicle charging points (EVCPs). We are working with our Car Parks team on this long-term project and the contractor delivered 12 on street EVCP last year and anticipate significant progress this coming year.

[8] West Sussex EV Chargepoint Network | Connected Kerb

- To encourage use of the electric pool cars and electric pool bikes by staff for work related journeys. Money previously planned to extend the 'on-street' Car Club fleet was diverted towards extending the CDC staff EV pool car fleet pilot for a further two years (October 2024 – September 2026). Total mileage of electric pool cars has reached 17,379 miles since the cars were acquired and promotion of the staff pool bikes is delivered through CDC's intranet.
- The West Sussex Active Travel Strategy 2024-2036 and the West Sussex Local Cycling and Walking Infrastructure Plan (LCWIP) were formally adopted by West Sussex County Council (WSCC) in September 2024. Their LCWIP features six long distance routes that complement routes featured in the district and borough councils' LCWIPs. Three of the routes serve the city of Chichester. Both documents are available to download from the county council's website.
- In March 2024 Active Travel England (ATE) awarded WSCC £1.014m (capital) from the Active Travel Fund 4 Extension. This is being used to deliver four active travel improvement schemes across the County including a new puffin crossing on A286 Midhurst Road at Lavant (within Chichester district). The new crossing has been delivered and supports walking to Lavant Primary School and access to the nearby bus stops for services to Chichester and Midhurst.
- In September 2024 ATE awarded level 1 capability status to WSCC. This will allow future capital bids to be submitted to ATE for funding to deliver active travel schemes.
- We continued to run and maintain two air quality monitoring stations during 2024 and have published the monitoring information at http://sussex-air.net – this work is used within the air Alert forecasting service (see measure 17 in Table 2.2). A filter dynamic measurement system (FDMS) PM_{10}/$PM_{2.5}$ analyser was commissioned in January 2024 and data from the analyser is reported in section 3 of this report.
- We continue to monitor 22 sites using NO_2 diffusion tubes including two new sites (Westgate in Chichester and A27 at Tangmere).
- We continue our partnership working with WSCC, Sussex-Air and Chichester & District Cycle Forum.
- The Council (and WSCC) have renewed their Easit[9] membership (a sustainable travel benefit scheme) and continues to promote the Lease car scheme (including lease of EVs) as staff benefits to encourage non-car mode travel and use of zero-emission vehicles. Both measures were delivered by the air quality officer.
- The council has placed an order for two E-vans for Parking Services so making their whole fleet electric.

CDC expects the following measures to be completed over the course of the next reporting year (further details are listed in Table 2.2):

- To support our partners, particularly WSCC, with respect to developing the detailed design for one of the cycle routes in the west of Chichester City (LCWIP Route K) and further supporting work on WSCC Strategic Transport Investment Programme (STIP)[10] cycle route proposals.

[9] CDC is a member of the Easit Network which entitles staff to various travel related discounts

[10] Strategic Transport Investment Programme – schemes include: Oaklands Way, Westhampnett Road (now called A285 Chichester to Tangmere) in Chichester, A259 Chichester to Bognor Regis Corridor Scheme and A286 Selsey Tram improvements

- To continue to work with WSCC, NH, other partners (Sustrans) and the community towards the delivery of the A259 Chichester to Emsworth Active Travel improvement scheme known as Bourne Active Travel Scheme (BATS) (previously known locally as Chemroute). At the time of writing arrangements are being made to commission a review of the estimated scheme costs in the light of the additional improvements suggested by Active Travel England's design inspectorate. The review will look at whether the overall scheme still offers value for money and will also breakdown the route into sections to assess the relative value for money of each. This in turn should help to inform decisions regarding where the focus should be with respect to delivering the scheme.
- To continue to work with WSCC and CK for the delivery of an on-street and in Council car parks network of EVCPs – delivery of 58 on street charging points planned to be delivered during 2025 and approximately 30 EVCPs in the council owned car parks.
- To continue to work to implement our policy that 'all new council cars and vans shall be electric unless there is a business reason as to why not'.

CDC's priorities for the coming year are:

- To work with WSCC and CK to deliver a significant number of on street EVCPs
- To work with WSCC to deliver a detailed design for LCWIP Route K and to complete a public consultation on the design
- To deliver and consult on a feasibility design for a walking, wheeling and cycling path north to south through Oaklands Park part of LCWIP route B (Oaklands Way to Wellington Road, Chichester).
- To continue to expand use of the Car Club vehicles both by staff and the public

CDC worked to implement these measures in partnership with the following stakeholders during 2024:

- WSCC Highways, Transport and Planning Teams
- Neighbouring District and Borough Councils
- National Highways
- Sussex-air members
- Public Health Team at WSCC
- Connected Kerb

The principal challenges and barriers to implementation that CDC anticipates facing are:

- For on-highway infrastructure, the council relies on WSCC for delivery of highways related work and so delivery of walking, wheeling and cycling infrastructure is dependent on WSCC as the lead authority.

Progress on the following measures has been slower than expected due to:

- Capacity of electrical sub-station at the Council's depot (CCS) limits how many more electric vehicles can be charged at this location until there is an upgrade to the sub-station.
- The cost of District Network Operators (DNOs) to connect EVCP infrastructure to the electricity grid has risen significantly so making the install of some previously planned EVCPs too expensive to proceed. This has been detrimental to the number of intended installs in the Council's car parks.

CDC anticipates that Rumbolds Hill, Midhurst AQMA is on target to be compliant with the NO_2 annual mean air quality standard in 2025 as predicted by our air quality modelling carried out in 2020 (the model outputs are discussed in detail in the Council's Air Quality

Action Plan). The Council will add revoking this AQMA into the work programme for 2025/26.

The measures stated above and in Table 2.2 will help to contribute towards compliance with the air quality standard in St Pancras AQMA and no further measures are anticipated to be required for compliance to be reached in 2026/7.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	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	Cleaner Vehicles	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2012	2026	WSCC/ CDC	WSCC/ CDC	Partially Funded	0	Implementation		Number of EV recharging points	Joined Connected Kerb contract October 2022. 12 sites complete, 58 awaiting commissioning, 6 pending. 2 EVs ordered for Parking Services.	The capital cost of installing EVCPs has significantly increased due to DNO connection cost increases and civil engineering cost increases.
2	Cycling and Walking Initiatives	Promoting Travel Alternatives	Promotion of cycling	2012	2028	CDC/ WSCC	CDC/ WSCC	Partially Funded	£50k - £100k	Planning		% increase in cycling	CDC/WSCC produced concept design for CDC LCWIP route K. Developer funding used to deliver Dutch roundabout and other improvements – part of route K.	Supporting WSCC on work on STIP schemes and BATS (see measure 4).
3	Car Clubs	Alternative to private vehicle use	Car Clubs	2012	2026	CDC/ WSCC	CDC/Car club operator	Partially Funded	£10k - 50k	Planning		Utilisation rate of cars to be 20%	4 cars available within Chichester (2 EVs located at CDC for staff during working hours and for public out of hours).	Co wheels cars at Roussillon Barracks, Stirling Road and West Street, Chichester no longer available due to low utilization rate.
4	Cycling and Walking Initiatives	Transport Planning and Infrastructure	Cycle network	2023	2026	WSCC	ATE	Funded	£100k - £500k	Implementation		increase in active travel	WSCC awarded ATE capital funding (£1.014m) from Active Travel Fund 4 extension used for 4 active travel schemes across County including puffin crossing on A286 Midhurst Road at Lavant, constructed in June 2024. Other cycling improvements in district to be delivered through CIL and S106 funding. WSCC received capability rating of 1 in 2024 enabling future capital bids for ATE funding to be made. £474,000 Capability Fund (revenue) funding awarded to increase capability to develop a pipeline of walking, wheeling and cycling schemes - CDC LCWIP scheme (route K) one of the highest scoring LCWIP schemes in West Sussex.	WSCC to commission consultants to undertake a review of the estimated A259 Chichester to Emsworth scheme **(BATS)** costs in light of the additional improvements suggested by Active Travel England's design inspectorate. The review will look at whether the overall scheme still offers value for money and will also breakdown the route into sections to assess the relative value for money of each. This in turn should help to inform decisions regarding where the focus should be. **A259 Chichester to Bognor Regis corridor scheme** – stage 2 consultation completed, 62% of respondents supported scheme. Strategic outline case submitted to Highways H&T Hub for allocation to capital programme and consultants commissioned to produce Strategic Outline Business Case. **A285 Chichester to Tangmere (formerly A285 Westhampnett Road) -** submitted to Highways H & T Hub for allocation to Capital Programme and is currently being reviewed. **A286 Oaklands Way** – undertaking an AMAT (Active Mode Assessment

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														Toolkit) on this scheme to see how it stacks up in terms of Value for Money, with a view to getting into the Capital Programme in 2026/2027**.** **A286 Selsey Tram** – Following steering group meeting in February scheme has been de-scoped to provide 'Zebra' crossings on the A286 Stockbridge Road and St. Georges Drive arms. This is subject to a 'Change Request' to remove it from Major Projects to our Improvements team to take forward for design in 2025/2026 & 2026/2027 with delivery in 2027/2028. We will be approaching CDC to release CIL contributions in 2026/27 to help deliver this scheme. CDC to deliver and consult on a feasibility design for a walking, wheeling and cycling path north to south through Oaklands Park, Chichester, part of LCWIP route B.
5	Air Quality Working Group	Promoting Travel Alternatives	Other	2012	2030	CDC	CDC	Not Funded		Implementation	N/A	2 meetings per year	Average of 2 meetings /year up to 2022. 8 meetings in 2023 and 4 meetings in 2024.	Briefing on consultation response to one of STIP schemes taken to Environment Panel in 2024.
6	Planning policy	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2012	2025	CDC	CDC	Not Funded		Implementation		No of planning conditions imposed on planning consultations	Sussex-air produced Planning Guidance and Low Emissions Strategy and document adopted by CDC Policy Planners in Local Plan (submitted to Planning Inspectorate for independent examination in May 2024).	WSCC revised parking standards 2019 are applied to planning consultations as necessary (relating to parking facilities and Building Control Regulations Part S applied with respect to EV charging points.
7	School travel plans	Promoting Travel Alternatives	School Travel Plans	2012	2030	WSCC/ CDC	WSCC/ CDC	Not Funded		Planning		% children travelling to school by sustainable means	Living Streets project engaged with 5 primary schools in District and staff/students at Chichester Uni between 2018-2021	

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
8	WSCC and CDC travel plans	Promoting Travel Alternatives	Workplace Travel Planning	2012	2030	WSCC/ CDC	WSCC/ CDC	Not Funded		Implementation		% WSCC and CDC staff travelling by sustainable means	WSCC grey fleet business mileage has max target of 6 million km. Easit scheme at WSCC and CDC to encourage rail use. Cycle to work scheme at CDC with £3k limit for ebikes. CDC procured two EV bikes for staff use Autumn 2022 to supplement existing pool pedal cycles and pool bikes actively promoted on CDC's intranet.	WSCC pool fleet mileage: Petrol 610,667 km, hybrid pool 934,911 km, EV pool 49,324 km, train 1,984,251 km - increase in train mileage and hybrid and EV mileage from 2023. Slight exceedance of max target (total 6.6 million km for 2024)
9	Business travel plans	Promoting Travel Alternatives	Workplace Travel Planning	2012	2030	WSCC	WSCC	Not Funded		Implementation		Travel plans implemented within target period	over 50 Travel Plans have been submitted since 2009	
10	Residential travel plans	Promoting Travel Alternatives	Personalised Travel Planning	2012	2030	WSCC	WSCC	Not Funded		Implementation		Travel plans implemented within target period	over 53 Travel Plans have been submitted since 2009	2 additional plans submitted in 2024 WSCC has applied for a research grant (PHRIST)[11] to study the impact of the active travel mitigation including the 3rd Dutch roundabout in England, secured through the planning process, associated with a large sustainable urban development in the west of Chichester, which will optimise decision making for future developments and active travel infrastructure.
11	TravelWise/smarter choices	Public Information	Via the Internet	2012	2030	WSCC/ CDC	WSCC	Not Funded		Implementation		No. of users of WSCC car share database for PO19 area	Travel patterns have altered since 2021 with many employees hybrid working	Data no longer available
12	Cycle route information	Promoting Travel Alternatives	Promotion of cycling	2012	2030	CDC	CDC	Not Funded		Implementation		No. of maps sold through Tourist Information or other outlets	5 route leaflets have been produced and over 1544 copies have been sold to date	31 maps sold in 2024

[11] Public Health Interventions Responsive Studies Teams (PHIRST)

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
13	Cycle journey planning	Public Information	Via the Internet	2012	2030	WSCC	WSCC	Not Funded		Implementation		No. of journeys planned on website (note this covers whole of West Sussex area)	Web link available on WSCC and CDC websites	Access to data (number of journeys planned on website) no longer available but website still functioning
14	Public transport infrastructure	Transport Planning and Infrastructure	Public transport improvements-interchanges stations and services	2012	2030	WSCC	WSCC	Funded	£50k - £100k	Implementation		Increase in use of public transport	RTPI displays installed at key locations across the city. Two additional bus shelters installed in City in 2023	99 battery powered displays installed in Chichester District between Jan 24 - March 2025.
15	Cleaner buses	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles	2012	2030	WSCC	WSCC	Funded		Implementation		% of Euro 6 buses	February 2023 WSCC entered into Enhanced Partnership (EP) scheme with bus operators for a period of 5 years.	Details of the EP proposals are available at https://www.westsussex.gov.uk/media/20299/bsip_enhanced_partnership_scheme.pdf - includes new bus service 500 between Chichester and Littlehampton via Chichester hospital.
16	Licensing requirement for taxis	Promoting Low Emission Transport	Taxi Licensing conditions	2012	2030	CDC	CDC	Not Funded		Implementation		No. of Euro 4 vehicles	For vehicles 5 years and over, MOT and fitness test required every 6 months	Most recent taxi licensing policy adopted in 2025. Over 48% of fleet either hybrid or electric vehicles.
17	Forecasting, monitoring and public information	Public Information	Via other mechanisms	2012	2030	SAQP	SAQP	Partially Funded		Implementation		No. of people registered to receive alerts	Sussex Air Alert Service set up in 2012. 590 subscribers in 2022, 646 subscribers in 2023	826 subscribers at end December 2024
18	Air quality monitoring and traffic monitoring	Traffic Management	UTC, Congestion management, traffic reduction	2012	2030	CDC/ WSCC	CDC/ WSCC	Not Funded		Implementation		Reduction in traffic volumes	WSCC Active Travel Strategy monitoring shows 74.2% adults walk or cycle once per week compared to England average 70.9% (2023 data).	
19	A27 by-pass improvements	Traffic Management	Strategic highway improvements, re-prioritising road space away from cars, including Access management, Selective	2017	2030	National Highways	National Highways	Not Funded		Planning		Reduction in congestion	NH consulted during 2017 on options for improving A27 around Chichester however improvements were cancelled.	No funds allocated for A27 improvements at current time. NH's Road Investment Strategy 3 is anticipated in 2025.

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
			vehicle priority, bus priority, high vehicle occupancy lane											
20	Variable message signing (VMS) on A27	Traffic Management	UTC, Congestion management, traffic reduction	2017	2030	National Highways	National Highways	Not Funded		Planning		No. of warnings made per year	NH decision awaited	awaiting outcome of A27 improvements decision
21	Park and Ride schemes in and around City	Alternatives to private vehicle use	Bus based Park & Ride			CDC/WSCC	CDC/WSCC	Not Funded		Aborted		Reduce traffic in City centre by 3%	Not currently part of area transport strategy for Chichester within the West Sussex Transport Plan (2022-2036) due to lack of possible sites	
22	Speed limit changes - 20 mph as part of school safety zone	Traffic Management	Reduction of speed limits, 20mph zones	2012	2015	WSCC	WSCC	Funded		Completed		Reduction in traffic queues within Orchard St AQMA	Signs installed around schools and on nearby roads – Orchard Street AQMA revoked in 2022	measure completed and ongoing
23	Blanket 20mph scheme on residential streets	Traffic Management	Reduction of speed limits, 20mph zones	2014	2016	WSCC	WSCC	Funded		Completed		Reduced speed on residential streets	Roads monitored before and after implementation and speed reductions achieved on some roads	measure completed and ongoing
24	MOVA traffic signal optimisation	Traffic Management	UTC, Congestion management, traffic reduction	2012	2015	WSCC	WSCC	Not Funded		Completed		Reduction in traffic queues within AQMAs	2 new Puffins to replace existing crossings implemented	eliminates ghost users and reduces red time

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

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[12], local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$)). There is clear evidence that $PM_{2.5}$ (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Data from the Public Health Outcomes Framework (Public Health Outcomes Framework - Data - OHID (phe.org.uk) indicates that Chichester District has a lower fraction of mortality (4.5% in 2023) attributable to particulate air pollution than the England average of 5.2%. This is similar to other nearby authorities and represents an improvement during the period 2018 – 2023).

CDC and partners are taking the following measures to address $PM_{2.5}$

- Measure 1 – cleaner vehicles – we have installed electric vehicle charging points across the district over recent years and have a procurement policy to encourage the use of electric vehicles where the business case is favourable. We have implemented a pilot pool car fleet for CDC employees comprising ZEZ vehicles and the pilot is being extended until 2026. Further EV charge points were installed in 2023-24 in partnership with WSCC and their provider Connected Kerb and this project is continuing.
- Measure 2 – promotion of cycling - two electric pool bikes have been installed to enhance the current pool bike fleet and they are being actively promoted to staff.
- Measure 3 – car clubs - we continue to promote the use of the Car Club including to CDC staff. Car clubs are also promoted in responses to planning applications for large scale developments in order to help reduce private vehicle mileage and increase the use of alternative modes of transport.
- Measure 4 –walking, wheeling and cycling initiatives – CDC and WSCC continue to work on a number of active travel schemes, further details are listed in Table 2.2.
- Measure 15 – cleaner buses – under the Bus Service Improvement Plan an Enhanced Partnership Scheme has been formally made by West Sussex County Council and local bus operators (commencement date 10 February 2023) Details of the BSIP scheme can be found at West Sussex Bus Service Improvement Plan 2024 (see section 3 for updates to schemes that have been delivered so far).
- Measure 16 – taxi licensing conditions – air quality considerations have been included with CDC's taxi licensing policy 2025. There are currently 44.5% of the taxi fleet comprised of hybrid vehicles and 3.8% of the fleet are electric.

The Council has not declared any Smoke Control Areas however within the revised AQAP we have included the following measures:

- Consider declaring Smoke Control Areas which would allow for regulatory oversight of firewood and stoves being sold.

[12] Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

- Include in the Communications Plan for Air Quality a specific thread on domestic burning, bonfires, fire-pits, open fires and wood burners.

Where considered appropriate we have recommended that construction environmental management plans (CEMP) are put in place during the construction of new developments which include dust control strategies. Where appropriate officers are objecting to planning applications that include wood-burning stoves.

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

This section sets out the monitoring undertaken within 2024 by CDC and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

CDC undertook automatic (continuous) monitoring at two sites during 2024. Table A.1 in Appendix A shows the details of the automatic monitoring sites. NB. Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem issue - we do not report on these pollutants. The http://www.sussex-air.net page presents automatic monitoring results for CDC, with automatic monitoring results also available through the UK-Air website (Home - DEFRA UK Air - GOV.UK).

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 quality assured are included in Appendix C.

3.1.2 Non-Automatic Monitoring Sites

CDC undertook non- automatic (i.e. passive) monitoring of NO_2 at 22 sites during 2024.

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, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. 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 and annualisation, as required (i.e. the concentration values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2024 dataset of monthly mean values is provided in Appendix B. Note that, where relevant, the concentration data presented in Table B.1 includes distance corrected values.

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'.

Data in Table A.3 indicates that there been a slight decrease in the NO_2 annual mean concentration at the Stockbridge monitoring station (from 20.4 to 20.2 µg/m^3) and the air quality objective was not exceeded. The concentrations at this location have been decreasing for the past five years (from 24 to 20.2 µg/m^3). The monitoring station is not within an AQMA and does not represent a location of relevant exposure however it is the only real-time monitoring location available near the former Stockbridge AQMA. There are three co-located diffusion tubes at the monitoring station and the 2024 annual mean for these tubes was 22.5 µg/m^3. As noted for the air quality monitoring station, the air quality objective was not exceeded. Measured concentrations for the Claremont Court diffusion tube location (which is in the former Stockbridge AQMA near the A27) decreased compared to last year at 26 µg/m^3 compared to 27.6 µg/m^3, (and over the last five years the results have decreased from 29.2 µg/m^3). As reported previously, the Stockbridge Roundabout AQMA was revoked on 9 May 2022 based on air quality monitoring data showing compliance with the air quality standard for over three years and the results of air quality modelling (presented within the AQAP).

At the Westhampnett Road monitoring station the NO_2 annual mean concentration was 19.1 µg/m^3. This monitoring station was commissioned in February 2019 and the six year

trend at this location[13] shows a trend of decreasing concentrations (from 27 to 19.1 µg/m^3). There is a diffusion tube located to the east of the monitoring station. The annual mean for the diffusion tube has been decreasing over the last five years (from 23.4 to 21.5 µg/m^3). Neither the monitoring station nor the diffusion tube are located within an AQMA.

Near the former Orchard Street AQMA there are still three diffusion tubes being deployed. The annual mean for the diffusion tube at the former Orchard Street monitoring station was 15.1 µg/m^3 (over the last five years the concentrations have decreased from 17.2 to 15.1 µg/m^3). At the nearby co-located diffusion tube location at 174 Orchard Street, the annual mean was 23.5 µg/m^3 (and over the last five years the concentrations have decreased from 25.1 to 23.5 µg/m^3). As reported last year the Orchard Street AQMA was revoked on 9 May 2022 based on the long term trend in the results. The monitoring station was decommissioned in January 2022.

At the diffusion tube locations within the St Pancras AQMA, there were no exceedences of the air quality objective of 40 µg/m^3 and the concentrations measured were:

- St Pancras co-located diffusion tube annual mean 33.7 µg/m^3 (down from 36.3 µg/m^3 last year).
- Nag's Head diffusion tube annual mean 29 µg/m^3 (down from 31.5 µg/m^3 last year).

It is noted that this is the first year the concentration at the St Pancras diffusion tubes has not exceeded the annual mean Objective (or been within 10% of it).

At the diffusion tube locations within the Rumbolds Hill AQMA in Midhurst, there were no exceedances of the air quality objective of 40 µg/m^3 and the concentrations were:

- Rumbolds Hill co-located diffusion tube annual mean 31.8 µg/m^3 (up from 27.5 µg/m^3 last year however see note below)
- Midhurst Stationery diffusion tube annual mean 21.3 µg/m^3 (up from 19.0 µg/m^3 last year)
- Nat West Bank diffusion tube annual mean 28.2 µg/m^3 (up from 25.2 µg/m^3 last year)
- Nationwide diffusion tube annual mean 26.3 µg/m^3 (up from 21.5 µg/m^3 last year).

It should be noted that there was a fire in Midhurst in Spring 2023 which resulted in the A286 being closed to through traffic for just over 3 months (from 16 March until 23 June 2023). Traffic volumes using Rumbolds Hill were significantly reduced during this period resulting in a reduction in NO_2 at the diffusion tubes in Midhurst – this is considered likely to have reduced the annual mean concentrations at these locations. NO_2 concentrations for 2024 at all locations in Midhurst are higher than for 2023 however the overall long term trend is generally a decreasing one.

At the other diffusion tube sites within Chichester, the NO_2 concentration has fluctuated with some sites marginally higher and some sites marginally lower than in 2023. All sites were compliant with the air quality objective. It is not intended that the locations of any of the existing diffusion tubes will be changed in the coming year.

The annual mean concentrations for NO_2 across the wider Sussex monitoring network showed a general levelling off in concentrations from 2020 – 2024.

[13] The concentration for 2020 showed a significant drop due to the Covid Pandemic, subsequent years had higher concentrations however the overall trend is a decreasing one.

We added an additional diffusion tube site near the westbound A27 carriageway at Tangmere in October 2023 as a result of air quality information made available to CDC by National Highways. The annual mean concentration for 2024 was 39.7 µg/m^3 (distance corrected value to nearest existing residence is 31.7 µg/m^3). There is a potential residential development site close to this location and monitoring will continue to establish the long term trend at this location.

We also added an additional diffusion tube at Westgate in Chichester (near the Orchard Street roundabout which has been redeveloped as part of traffic improvement measures related to a housing develoment in the west of Chichester). Monitoring is being undertaken here in order to understand the impact of the proposed changes to the roundabout (monitoring commenced in October 2023 before the redevelopment works commenced). The annual mean concentration for 2024 was 14.9 µg/m^3 - this location is within a narrow canyonised street. Monitoring will continue at this location to establish the long term trend.

From Table A.5 there have been no exceedances of the NO_2 1-hour mean concentration at the Stockbridge monitoring station for the last five years and there has been one exceedance at the Westhampnett monitoring station in the last five years. The air quality Objective was not exceeded. The DEFRA guidance suggests the 1-hour mean objective is unlikely to be breached unless the annual mean concentration is 60 µg/m^3 or above.

3.2.2 Particulate Matter (PM_{10})

Table A.6 in Appendix A: Monitoring Results compares 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.

A new PM_{10}/$PM_{2.5}$ FDMS analyser was installed at the Stockbridge monitoring station and commissioned in early January 2024. The monitoring station is not located within an AQMA and does not represent a location of relevant exposure however it is the only real-time monitoring location available near the former Stockbridge AQMA. During the year it was noticed that there were negative spikes in the data – this issue has been investigated by Bureau Veritas (BV) who quality control the data and a report of the findings is available in the reference section at the end of this ASR. In summary, the 24 hour and annual mean data is considered to be representative, and the Objectives were not exceeded.

From Table A.6, the annual mean concentration (14.9 µg/m^3 in 2024) represents a decrease in concentration when compared to the results reported in previous ASRs and is fully compliant with the objective of 40 µg/m^3. In addition, the number of PM_{10} daily mean concentrations exceeding the Objective was zero therefore the air quality objective of 50 µg/m^3, not to be exceeded more than 35 times per year has been met during 2024.
The Council intends to continue monitoring PM_{10} at the Stockbridge monitoring station to establish the long-term trend.

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 concentration for 2024. The Council installed a new PM_{10}/$PM_{2.5}$ FDMS analyser in December 2023 which was commissioned early in January 2024. The 2024 $PM_{2.5}$ annual mean was 8.3 µg/m^3 and did not exceed the interim 2028 target of 12 µg/m^3 or the 2040 target of 10 µg/m^3.

The Council intends to continue monitoring $PM_{2.5}$ at the Stockbridge monitoring station to establish the long-term trend.

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? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
CI1	Stockbridge	Suburban	485881	103791	NO_2	No	n/a	Chemiluminescent FDMS	25	26	3
CI5	Westhampnett Road	Roadside	487212	105372	NO_2	No	n/a	Chemiluminescent	11.8	4.2	1.9

Notes:

(1) N/A if not applicable.

(2) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

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)
1	Kings Ave/Southbank Jct	Roadside	485776	103961	NO2	No	11.0	2.3	No	3.0
2a, 2b	Claremont Court	Roadside	485772	103847	NO2	No	0.0	7.5	No	3.0
3, 4, 5	Cabin	Suburban	485880	103791	NO2	No	25.0	26.0	Yes	2.7
6	Stockbridge Road South	Roadside	485696	103731	NO2	No	14.0	2.0	No	2.9
7	Cleveland Rd	Roadside	486953	104414	NO2	No	3.0	1.8	No	2.8
8	Westhampnett Rd	Roadside	487341	105474	NO2	No	3.0	1.7	No	2.9
9a, 9b	Hornet	Roadside	486502	104795	NO2	No	0.0	1.8	No	3.1
10a, 10b	St Pancras	Roadside	486533	104860	NO2	Yes, ST PANCRAS AQMA	0.0	2.0	No	3.0
11	Arthur Purchase	Urban Background	486082	105026	NO2	No	0.0	6.0	No	2.7
12a, 12b	174 Orchard St	Roadside	485914	105185	NO2	No	0.0	2.0	No	2.7
13a, 13b	Rumbolds Hill	Roadside	488561	121479	NO2	Yes, RUMBOLDS HILL AQMA	0.5	1.5	No	3.4
14	Sussex Cleaners	Roadside	486575	104799	NO2	No	0.0	1.8	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)
15	Nag's Head	Roadside	486495	104845	NO2	Yes, ST PANCRAS AQMA	0.0	2.4	No	3.2
16	Orchard St Cabin	Roadside	485982	105221	NO2	No	9.8	3.8	No	2.0
17	Midhurst Stationery	Roadside	488545	121434	NO2	Yes, RUMBOLDS HILL AQMA	1.8	0.6	No	2.8
18	Nat West Bank	Roadside	488583	121512	NO2	Yes, RUMBOLDS HILL AQMA	0.5	1.1	No	3.0
19	Nationwide	Roadside	488605	121538	NO2	Yes, RUMBOLDS HILL AQMA	0.5	2.2	No	2.7
20	British Heart Foundation	Roadside	488636	121613	NO2	No	0.0	3.8	No	2.8
21	Whyke Roundabout	Roadside	486899	103720	NO2	No	15.4	1.7	No	2.4
22	St Paul's Rd	Roadside	485957	105334	NO2	No	0.0	2.1	No	2.1
23	Westgate Chichester	Roadside	485618	104865	NO2	No	0.0	2.3	No	3.6
24	A27 Tangmere	Roadside	490337	106930	NO2	No	6.2	4.3	No	2.1

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 2024 (%) (2)	2020	2021	2022	2023	2024
CI1	485881	103791	Suburban	96.4	96.4	23	24	22.4	20.4	20.2
CI5	487212	105372	Roadside	97.0	97.0	19	23	23.5	21.5	19.1

☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22

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

☒ Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2024

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.TG22 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 2024 (%) (2)	2020	2021	2022	2023	2024
1	485776	103961	Roadside	100.0	100.0	20.8	22.9	21.0	20.7	20.8
2a, 2b	485772	103847	Roadside	100.0	100.0	27.2	29.2	27.1	27.6	26.0
3, 4, 5	485880	103791	Suburban	100.0	100.0	24.4	24.1	22.1	22.8	22.5
6	485696	103731	Roadside	100.0	100.0	27.9	31.6	30.0	28.6	28.5
7	486953	104414	Roadside	100.0	100.0	11.7	12.8	10.5	11.1	10.5
8	487341	105474	Roadside	100.0	100.0	21.6	23.4	22.3	22.3	21.5
9a, 9b	486502	104795	Roadside	100.0	100.0	26.9	30.4	28.2	29.0	26.9
10a, 10b	486533	104860	Roadside	100.0	100.0	33.3	37.5	36.4	36.3	33.7
11	486082	105026	Urban Background	100.0	100.0	13.1	14.5	12.7	13.1	12.7
12a, 12b	485914	105185	Roadside	100.0	100.0	21.5	25.1	25.0	24.5	23.5
13a, 13b	488561	121479	Roadside	100.0	100.0	33.5	36.0	31.6	27.5	31.8
14	486575	104799	Roadside	100.0	100.0	25.6	25.1	24.2	24.4	24.6

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 2024 (%) (2)	2020	2021	2022	2023	2024
15	486495	104845	Roadside	100.0	100.0	28.3	33.0	28.4	31.5	29.0
16	485982	105221	Roadside	100.0	100.0	15.5	17.2	16.4	16.3	15.1
17	488545	121434	Roadside	100.0	100.0	22.0	24.2	21.3	19.0	21.3
18	488583	121512	Roadside	100.0	83.0	30.2	33.3	29.5	25.2	28.2
19	488605	121538	Roadside	100.0	100.0	29.0	29.8	27.2	21.5	26.3
20	488636	121613	Roadside	100.0	100.0	18.7	20.3	19.6	14.7	16.8
21	486899	103720	Roadside	100.0	100.0	25.1	28.0	26.7	26.4	26.0
22	485957	105334	Roadside	100.0	100.0	17.0	20.8	18.9	19.3	18.1
23	485618	104865	Roadside	100.0	100.0					14.9
24	490337	106930	Roadside	100.0	100.0					39.7

☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22

☒ 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**.

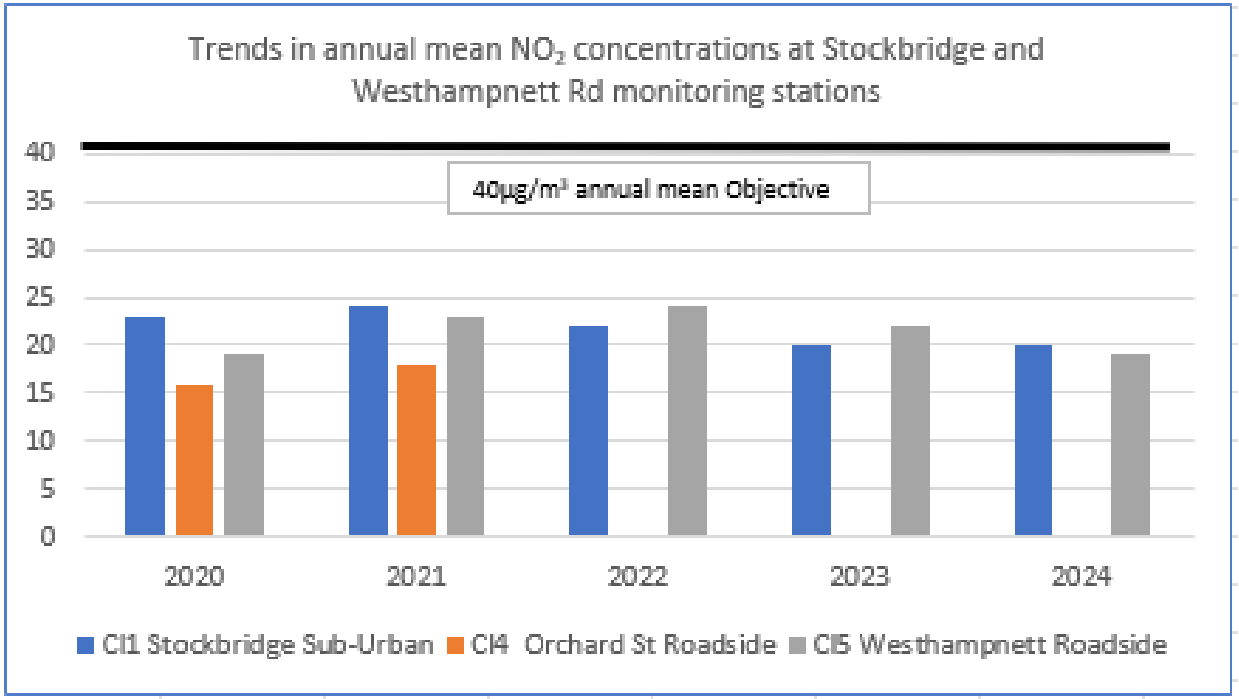
Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

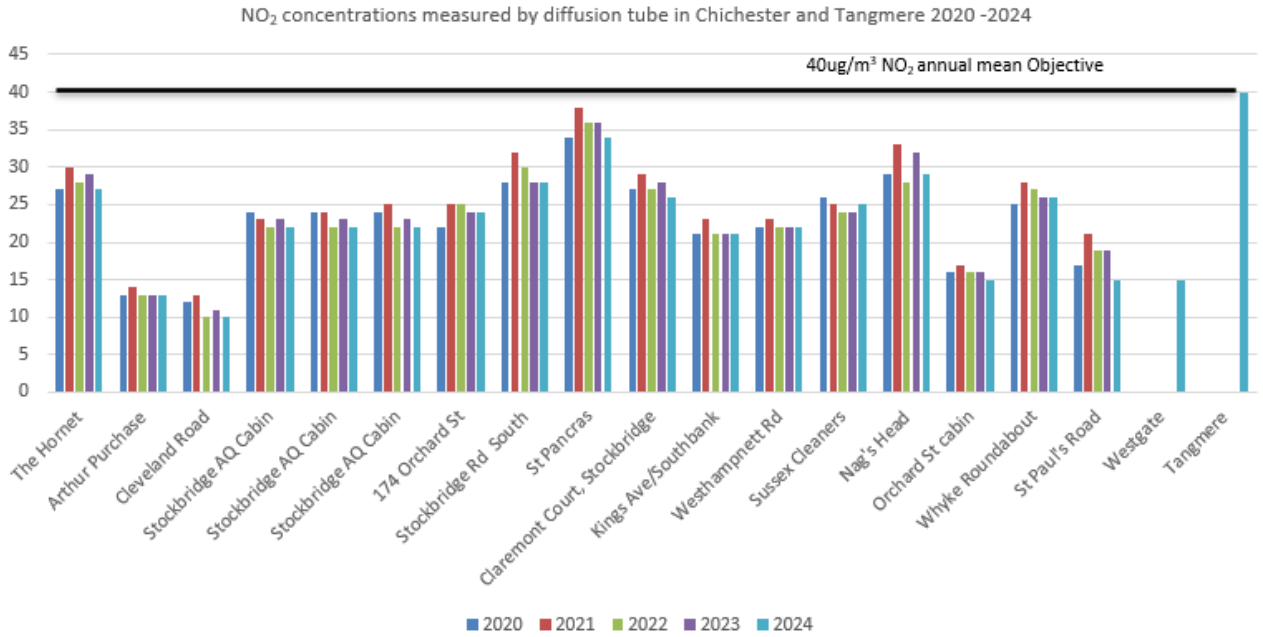
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(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




NO2 concentrations measured by diffusion tube in Chichester and Tangmere 2020 -2024
40ug/m³ NO2 annual mean Objective
45
40
35
30
25
20
15
10
5
0
The Hornet
Arthur Purchase
Cleveland Road
Stockbridge AQ Cabin
Stockbridge AQ Cabin
Stockbridge AQ Cabin
174 Orchard St
Stockbridge Rd South
St Pancras
Claremont Court, Stockbridge
Kings Ave/Southbank
Westhampnett Rd
Sussex Cleaners
Nag's Head
Orchard St cabin
Whyke Roundabout
St Paul's Road
Westgate
Tangmere
2020
2021
2022
2023
2024

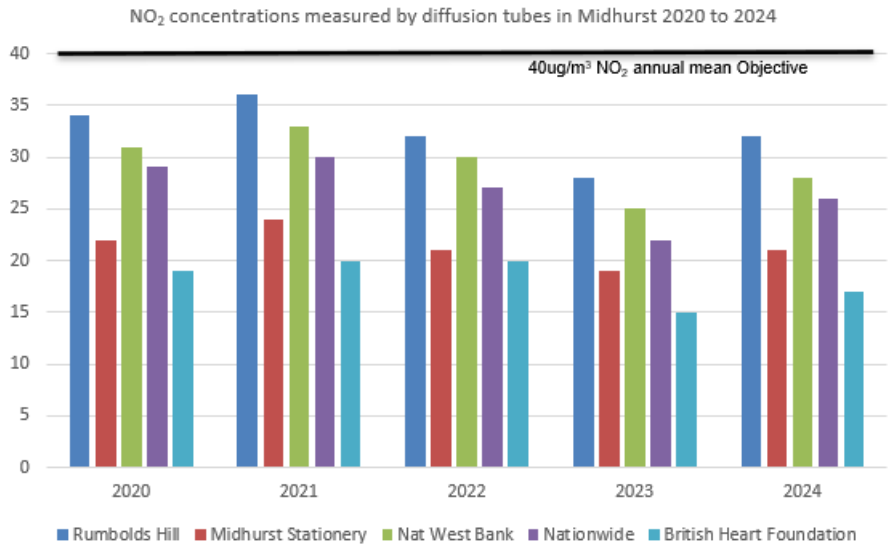

NO2 concentrations measured by diffusion tubes in Midhurst 2020 to 2024
40ug/m³ NO2 annual mean Objective
40
35
30
25
20
15
10
5
0
2020
2021
2022
2023
2024
Rumbolds Hill
Midhurst Stationery
Nat West Bank
Nationwide
British Heart Foundation

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 2024 (%) (2)	2020	2021	2022	2023	2024
CI1	485881	103791	Suburban	96.4	96.4	0	0	0	0	0
CI5	487212	105372	Roadside	97.0	97.0	0	0	0	0	1

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**.

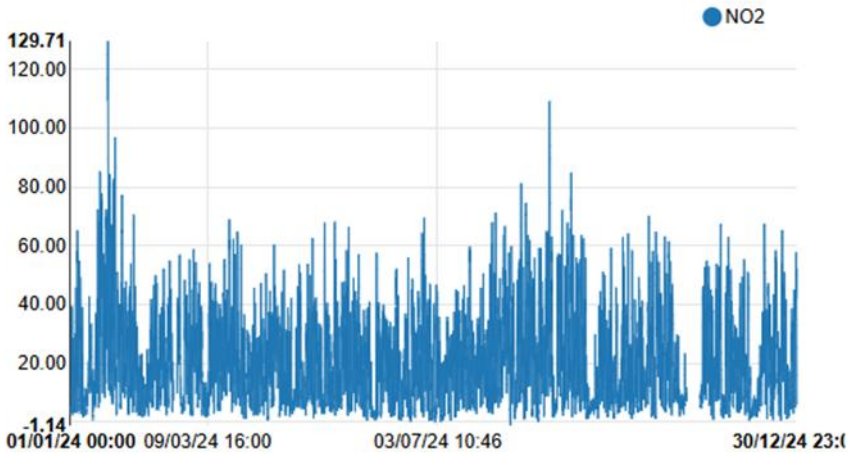
If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(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%).

Figure A.2 – Trends in Number of NO_2 1-Hour Means > 200µg/m^3 (no exceedances of 200µg/m^3)

NO_2 1-hour means at Stockbridge Monitoring Station units µg/m^3 during 2024



NO_2 1-hour means at Westhampnett Road Monitoring Station units µg/m^3 during 2024

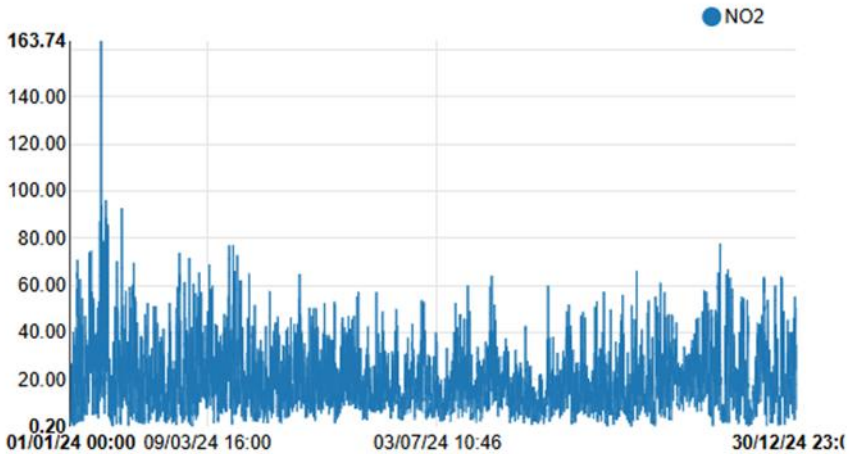


Table A.6 – Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CI1	485881	103791	Suburban	94.6	94.6	18	20	23.6	-	14.9

☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22 – this was required with respect to the 2022 data

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

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

All means have been "annualised" as per LAQM.TG22 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.3 – Trends in Annual Mean PM_{10} Concentrations

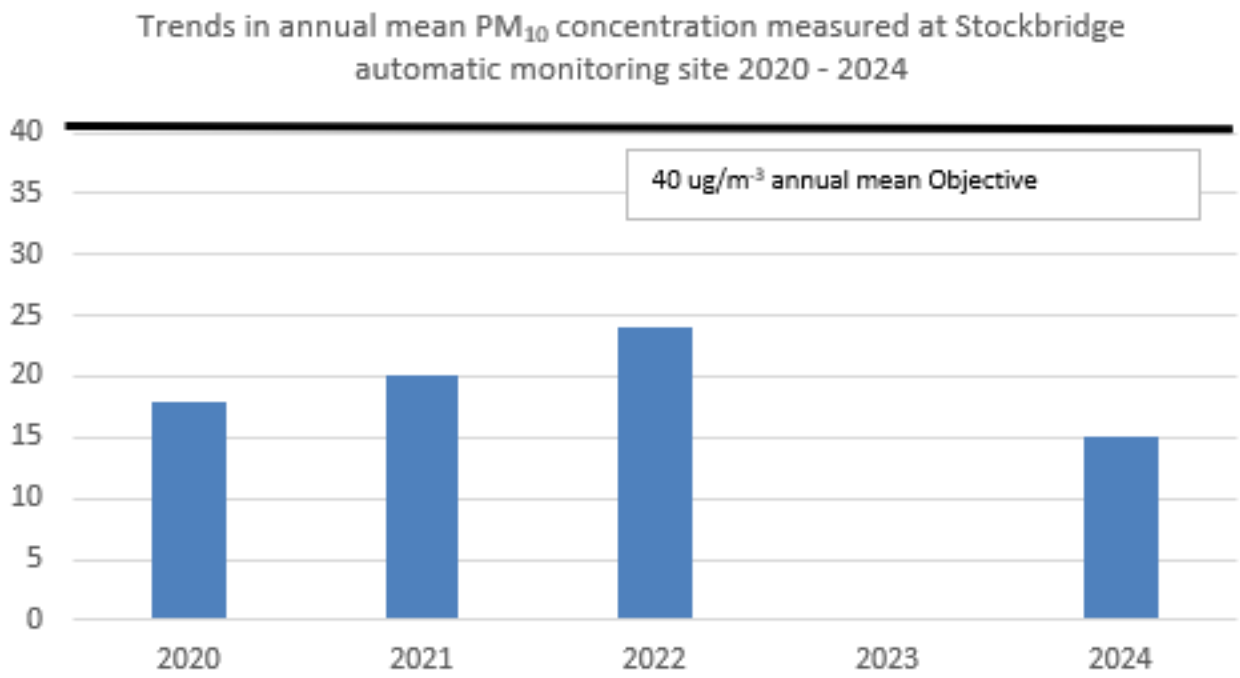


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CI1	485881	103791	Suburban	94.6	94.6	0	**0**	(2)	-	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.4 – Trends in Number of 24-Hour Mean PM_{10} Results > 50µg/m^3

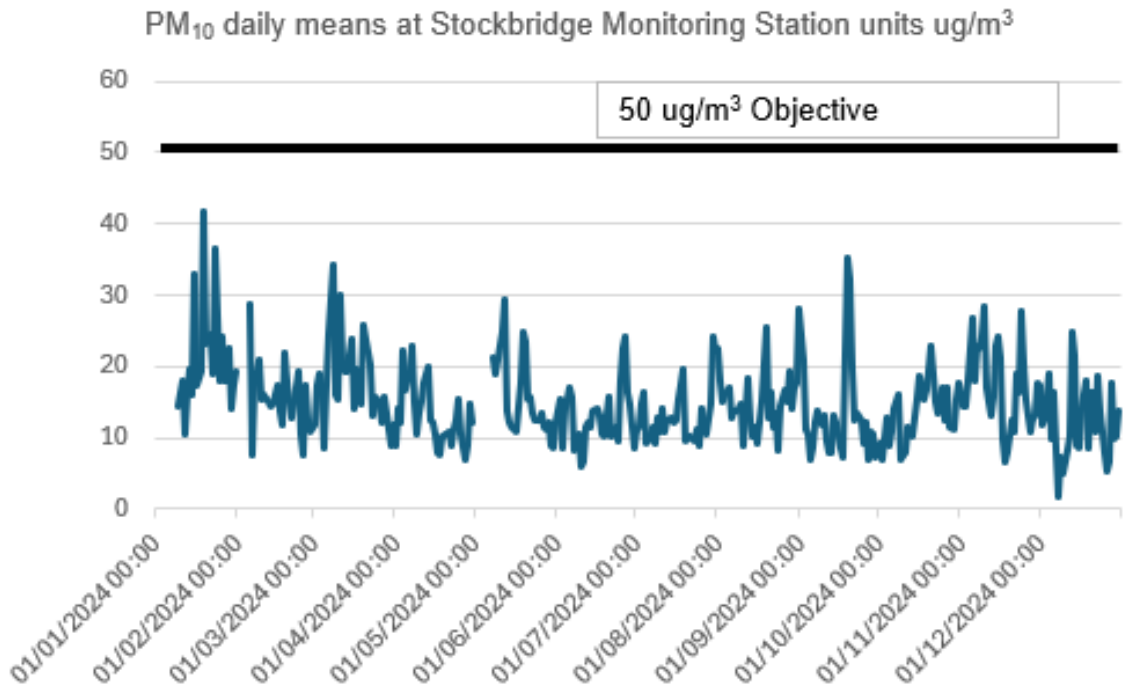


Table A.8 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CI1	485881	103791	Suburban	97.2	97.2					8.3

Notes:

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

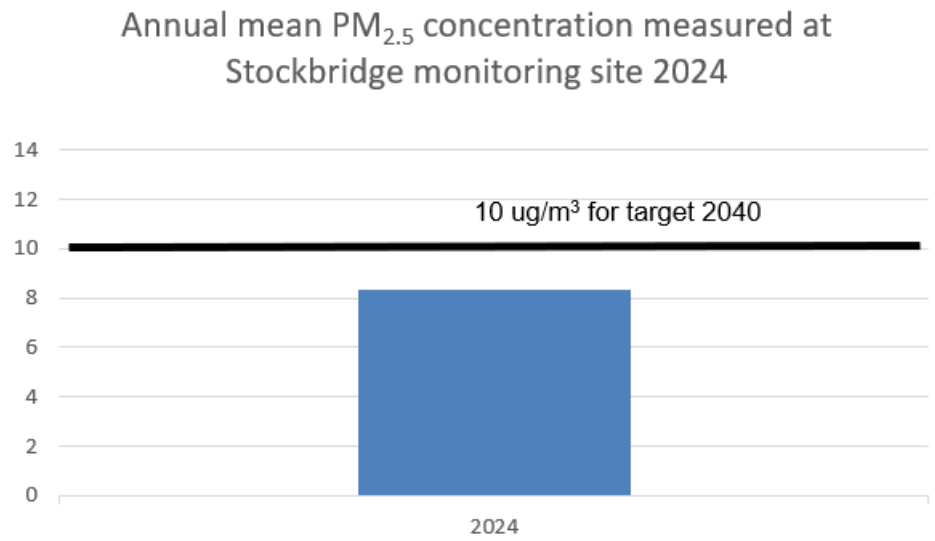
All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(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%).

(3) PM2.5 monitoring commenced January 2024 (ie there is no earlier years' data).

Figure A.5 – Trends in Annual Mean $PM_{2.5}$ Concentrations – note only one year of monitoring undertaken for this pollutant



Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 Diffusion Tube Results ($\mu g/m^3$)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted <(0.88)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
1	485776	103961	25.6	26.4	25.7	20.9	22.9	20.7	22.0	23.4	23.9	24.3	25.9	21.7	23.6	20.8	-	
2a	485772	103847	31.7	30.8	31.1	27.1	31.4	26.4	31.8	30.5	27.9	29.2	29.7	21.9	-	-	-	Duplicate Site with 2a and 2b - Annual data provided for 2b only
2b	485772	103847	32.5	31.7	31.7	30.1	32.0	30.8	34.1	30.0	27.9	27.9	28.9		29.5	26.0	-	Duplicate Site with 2a and 2b - Annual data provided for 2b only
3	485880	103791	24.4	29.3	26.4	24.1	25.6	26.3	28.8	30.9	23.1	21.9	24.0	20.3	-	-	-	Triplicate Site with 3, 4 and 5 - Annual data provided for 5 only
4	485880	103791	25.2	28.6	27.3	24.8	25.0	24.8	27.4	29.0	20.8	23.1	25.2	23.5	-	-	-	Triplicate Site with 3, 4 and 5 - Annual data provided for 5 only
5	485880	103791	27.2	30.6	27.9	24.4	24.2	26.1	28.0	28.1	22.3	24.0	22.6	23.5	25.5	22.5	-	Triplicate Site with 3, 4 and 5 - Annual data provided for 5 only
6	485696	103731	38.1	25.6	34.9	31.3	31.2	28.6	30.4	30.3	32.9	39.8	39.6	26.7	32.4	28.5	-	
7	486953	104414	17.5	11.9	12.6	8.8	10.2	7.3	10.6	8.7	11.6	15.2	17.4	10.8	11.9	10.5	-	
8	487341	105474	30.0	29.6	27.7	23.9	22.5	21.9	24.3	18.7	18.3	27.7	28.8	20.3	24.5	21.5	-	
9a	486502	104795	35.7	30.9	31.4	28.1	29.7	26.5	29.6	25.5	8.8	32.8	40.7	26.1	-	-	-	Duplicate Site with 9a and 9b - Annual data provided for 9b only
9b	486502	104795	39.0	33.3	33.0	30.3	29.8	29.4	29.9	27.2	35.7	34.5	38.0	28.7	30.6	26.9	-	Duplicate Site with 9a and 9b - Annual data provided for 9b only
10a	486533	104860	37.2	43.4	39.9	35.6	43.7	38.1	41.6	38.4	36.4	40.3	34.9	29.5	-	-	-	Duplicate Site with 10a and 10b - Annual data provided for 10b only
10b	486533	104860	33.8	38.7	41.5	37.1	42.5	36.2	41.8	39.7	38.2	44.1	37.3		38.3	33.7	-	Duplicate Site with 10a and 10b - Annual data provided for 10b only
11	486082	105026	18.4	16.8	14.9	20.1	12.8	9.4	11.6	10.3	11.4	16.0	20.1	10.9	14.4	12.7	-	
12a	485914	105185	34.4	28.9	29.1	22.3	27.1	21.7	28.6	24.3	29.1	33.8	30.6	19.8	-	-	-	Duplicate Site with 12a and 12b - Annual data provided for 12b only
12b	485914	105185	28.1	30.5	33.9	14.2	27.6	21.4	27.8	24.4	23.9	34.2	29.8	16.1	26.7	23.5	-	Duplicate Site with 12a and 12b - Annual data provided for 12b only
13a	488561	121479	37.8	41.4	33.5	33.3	38.5	37.7	36.4	34.8	36.7	35.3	35.9	34.7	-	-	-	Duplicate Site with 13a and 13b - Annual data provided for 13b only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted <(0.88)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
13b	488561	121479	39.5	38.4	33.0	38.7	35.3	35.5	37.0	34.8	37.8	38.2	38.4	23.7	36.1	31.8	-	Duplicate Site with 13a and 13b - Annual data provided for 13b only
14	486575	104799	28.2	32.1	33.7	23.3	29.4	25.0	30.3	26.1	26.6	29.9	28.0	23.2	28.0	24.6	-	
15	486495	104845	36.4	34.7	32.5	35.7	34.0	33.2	32.5	30.2	33.0	32.9	33.4	27.5	33.0	29.0	-	
16	485982	105221	28.2	21.1	21.2	11.1	14.8	10.3	14.3	13.8	14.5	20.9	22.6	13.7	17.2	15.1	-	
17	488545	121434	30.2	25.2	24.0	24.2	24.5	22.3	21.5	20.3	25.7	26.8	26.8	19.0	24.2	21.3	-	
18	488583	121512	31.8	38.2	30.5	36.8	36.7	34.9	35.6			28.5	33.0	14.8	32.1	28.2	-	
19	488605	121538	32.5	32.6	31.5	29.8	32.1	28.0	31.7	27.2	31.8	33.7	32.6	15.5	29.9	26.3	-	
20	488636	121613	24.0	22.6	23.1	18.8	20.7	16.5	21.5	19.3	19.0	7.9	21.5	13.5	19.0	16.8	-	
21	486899	103720	30.5	35.4	29.8	26.4	33.3	27.5	32.1	32.4	24.3	31.7	30.3	20.8	29.5	26.0	-	
22	485957	105334	23.5	21.5	19.9	17.7	19.2	15.7	19.4	16.8	21.0	26.9	26.4	18.1	20.5	18.1	-	
23	485618	104865	23.2	19.8	15.7	14.8	14.0	11.3	14.3	13.8	16.0	19.7	24.0	16.7	16.9	14.9	-	
24	490337	106930	43.7	45.4	45.0	47.2	50.3	49.6	49.6	48.0	46.4	38.3	39.4	38.8	45.1	39.7	31.7	

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1**

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22**

☒ **National bias adjustment factor used**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column**

☒ **CDC confirms that all 2024 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 Chichester District During 2024

CDC has not identified any new or changed sources within the district relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Chichester District Council During 2024

CDC installed a new PM_{10}/$PM_{2.5}$ FDMS analyser in December 2023 at the Stockbridge monitoring station (CI1) which was commissioned in January 2024 – data from this analyser has been reported in the ASR.

CDC installed two additional diffusion tube locations during October 2023 – data from these tubes has been reported in the ASR.

QA/QC of Diffusion Tube Monitoring

CDC uses Gradko Environmental for supplying and analysing the diffusion tubes. The tube preparation method is 50% TEA/Acetone and ANA UKAS Method GLM7 and GLM9. CDC has used the National bias adjustment factor this year. The monitoring was completed in adherence to the 2024 Diffusion Tube Monitoring Calendar.

Gradko Environmental uses the AIR NO2 Proficiency Testing scheme for quality control. The results for 2024 were Satisfactory (Z score +/-2) for 100% of results submitted.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Chichester District recorded data capture of over 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.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 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.TG22 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.

CDC has applied a national bias adjustment factor of 0.88 to the 2024 monitoring data. It was decided to use the national bias adjustment factor as this represented the average of

bias adjustment factors for our laboratory (Gradko) – our local bias adjustment factor (0.79) is at the lower end of the range of factors (0.79 – 1.02) and was felt to be an under-estimate see extract of National Diffusion Tube Adjustment Factor Spreadsheet below. The factor is based on 12 studies. A summary of bias adjustment factors used by CDC over the past five years is presented in Table C.1.

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 04/25

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2025

LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1: Select the Laboratory that Analyses Your Tubes from the Drop-Down List

If a laboratory is not shown, we have no data for this laboratory.

Step 2: Select a Preparation Method from the Drop-Down List

If a preparation method is not shown, we have no data for this method at this laboratory.

Step 3: Select a Year from the Drop-Down List

If a year is not shown, we have no data[2]

Step 4:

Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.

If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

Analysed By[1]	Method (To undo your selection, choose (All) from the pop-up list)	Year[2] (To undo your selection, choose (All))	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m³)	Automatic Monitor Mean Conc. (Cm) (µg/m³)	Bias (B)	Tube Precision[5]	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	20% TEA in water	2024		Overall Factor[3] (27 studies)				Use		0.84
Gradko	50% TEA in acetone	2024		Overall Factor[3] (12 studies)				Use		0.88
Lambeth Scientific Services	50% TEA in acetone	2024		Overall Factor[3] (2 studies)				Use		0.81
Milton Keynes Council	20% TEA in water	2024		Overall Factor[3] (1 study)				Use		0.75
SOCOTEC Didcot	20% TEA in water	2024		Overall Factor[3] (1 study)				Use		0.75
SOCOTEC Didcot	50% TEA in acetone	2024		Overall Factor[3] (33 studies)				Use		0.78
SOCOTEC Glasgow	20% TEA in water	2024		Overall Factor[3] (1 study)				Use		0.77
SOCOTEC Glasgow	50% TEA in acetone	2024		Overall Factor[3] (1 study)				Use		0.79
Somerset County Council	20% TEA in water	2024		Overall Factor[3] (4 studies)				Use		0.81
Staffordshire County Council	20% TEA in water	2024		Overall Factor[3] (16 studies)				Use		0.82
Tayside Scientific Services	20% TEA in water	2024		Overall Factor[3] (1 study)				Use		0.76

Table C.1 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.88
2023	National	03/24	0.83
2022	Local	-	0.76
2021	Local	-	0.83
2020	Local	-	0.79

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been 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.

Table C.2 – Non-Automatic NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
24	4.3	10.5	39.7	8.4	31.7	

QA/QC of Automatic Monitoring

All sites are visited by a CDC officer for calibration and filter changes on a bi-monthly basis. CDC has a service agreement with a third party who provides site maintenance, auditing, regular inspections and 48 hour call out response if problems are encountered. Data is downloaded from all sites twice daily by BV[14] and is available to download online[15]. CDC has a contract with BV to calibrate and ratify all real time data collected. Data presented in the report has been ratified.

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

Information provided in the Sussex Air Quality Network Annual Report 2024 indicates that particulate data is corrected to gravimetric equivalent measurement values. All corrections are applied for the instrument type and size fraction measured.

Automatic Monitoring Annualisation

All automatic monitoring locations within Chichester District 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.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO_2 concentrations corrected for distance are presented in Table A.3.

No automatic NO_2 monitoring locations within Chichester District required distance correction during 2024.

[14] Bureau Veritas

[15] www.sussex-air.net

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

Figure D.1 – Map of Non-Automatic Monitoring Sites in Chichester

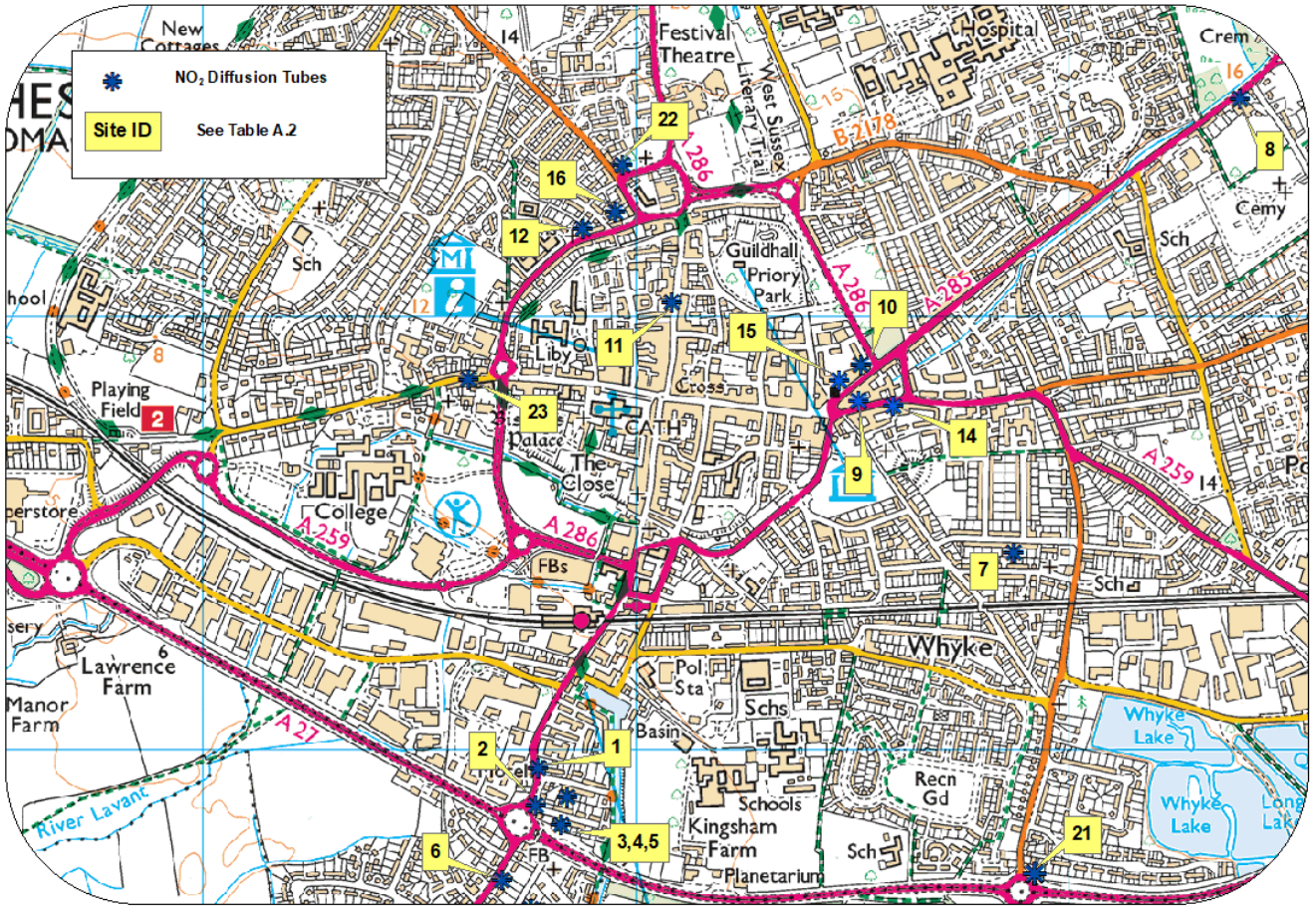


Figure D.1 – Map of Automatic and Non-Automatic Monitoring Sites at Stockbridge Roundabout site, Chichester (CI1)

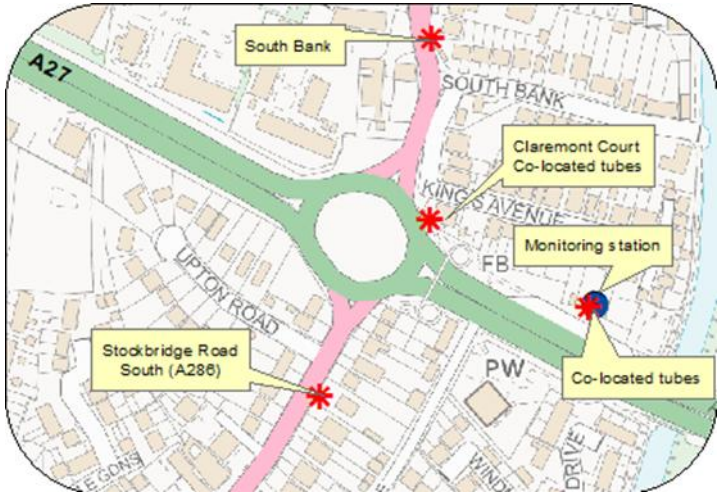


Figure D.2 – Map of Non-Automatic Monitoring Sites at St Pancras AQMA, Chichester

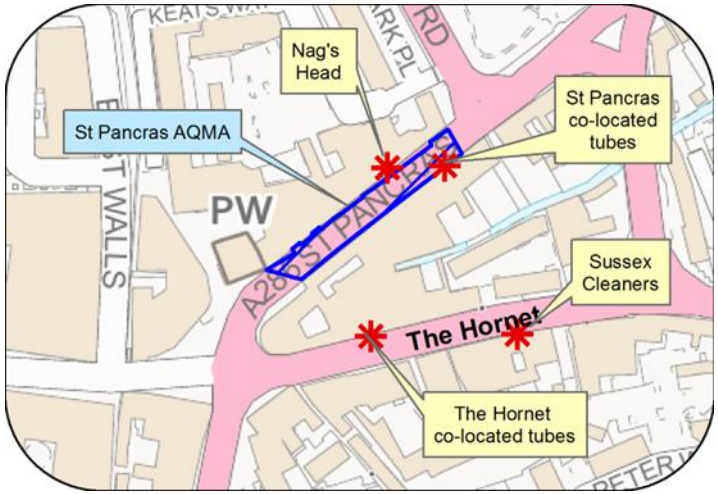


Figure D.3 – Map of Non-Automatic Monitoring Sites at Orchard St, Chichester

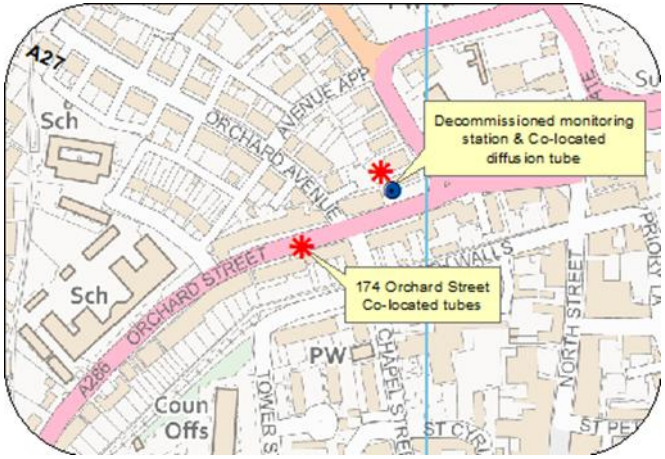


Figure D.4 – Map of Automatic and Non-Automatic Monitoring Sites at Westhampnett Road, Chichester

Figure D.5 – Map of Non-Automatic Monitoring Sites at Rumbolds Hill AQMA, Midhurst

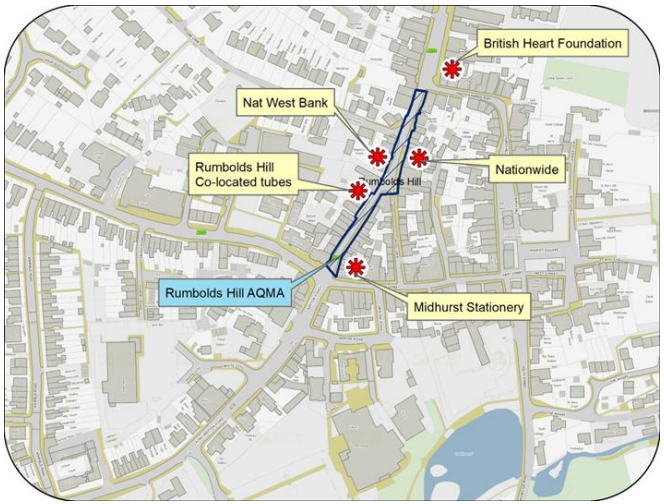
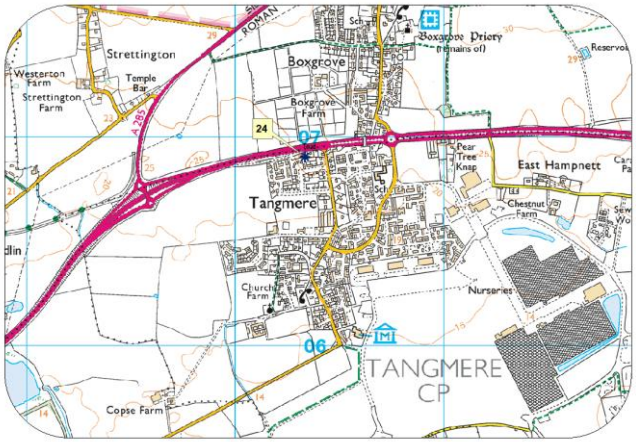


Figure D.7 – Map of Non-Automatic Monitoring Sites at Tangmere



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[16]

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

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

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
CCTV	Closed circuit Television
CDC	Chichester District Council
CIL	Community Infrastructure Levy
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EU	European Union
EV	Electric Vehicle
EVCP	Electric Vehicle Charging Point
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
LCWIP	Local Cycling and Walking Infrastructure Plan
LES	Low Emissions Strategy
MOVA	Microprocessor Optimised Vehicle Actuation
NH	National Highways
NHS	National Health Service
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
OLEV	Office of Low Emission Vehicles
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

Abbreviation	Description
SAQP	Sussex Air Quality Partnership
SO_2	Sulphur Dioxide
STIP	Strategic Transport Investment Programme
UTC	Urban Transport Controls
VMS	Variable message signing
WSCC	West Sussex County Council

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