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# 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: June, 2025

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## Local Responsibilities and Commitment

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## Executive Summary: Air Quality in Our Area

### Air Quality in the Royal Borough of Windsor and Maidenhead

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and 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 <sub>2</sub> )	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO <sub>2</sub> )	Sulphur dioxide (SO <sub>2</sub> ) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	<p>Particulate matter is everything in the air that is not a gas.</p> <p>Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes.</p> <p>PM<sub>10</sub> refers to particles under 10 micrometres. Fine particulate matter or PM<sub>2.5</sub> are particles under 2.5 micrometres.</p>

The council declared 5 Air Quality Management Areas (AQMA) for exceedance of the annual mean Air Quality Objective (AQO) for nitrogen dioxide (NO<sub>2</sub>): in Windsor (2 areas), Maidenhead, Bray (near the M4) and Wraysbury (near the M25). Following the continued attainment of the AQO for over 5 years, all AQMA were revoked in May 2025.

Air quality across the Borough is generally good and in recent years has improved significantly. Monitoring results in 2024 show a further year of compliance with the air quality objectives.

The recorded concentrations within four AQMAs have been below 10% of the objective level of 40  $\mu\text{g}/\text{m}^3$  (<36  $\mu\text{g}/\text{m}^3$ ) for a consecutive six-year period. The Imperial Road/ St Leonards Road Junction AQMA has recorded concentrations below 36  $\mu\text{g}/\text{m}^3$  for a consecutive eight-year period. The continued compliance achieved since 2019 has enabled the council to revoke all five AQMAs and in accordance with Defra's guidance an Air Quality Strategy (AQS) has been approved. This is to ensure air quality in the Borough remains high profile which will assist with maintaining compliance with air quality objectives and drive further improvements.

The council has a programme of measures in place to continue to improve local air quality. These form an integral part of the Local Transport Plan (LTP) which informs the Highways Capital Programme with the Council's efforts to improve air quality. The LTP also implements a suite of 'soft' measures and smarter choices: influencing better travel choices, such as encouraging public transport use, walking and cycling that can all contribute to reduced road traffic emissions.

Active travel has become a more integral part of sustainable travel and improving the public health, not only through the reduction of vehicle trips and air pollution but in encouraging daily exercise. The council has adopted a Local Cycling and Walking Infrastructure Plan (LCWIP) to help identify how to make improvements supporting cycling and walking, and where investment is needed in the short, medium and long term.

## 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 council has extensive measures and plans to continue to improve local air quality.

### Maidenhead

New development in Maidenhead town centre and the surrounding area included schemes to reduce congestion and improve air quality.

Maidenhead Station multi-modal transport interchange includes facilities for buses, taxis, a new cycle parking hub. The access scheme caters for the increase in passengers and

vehicles accessing the station as a result of electrification of the Great Western Main Line, the Elizabeth Line and the Western Rail Link to Heathrow. Parking displaced from the rail station forecourt is provided in the Stafferton Way multi-storey car park.

Maidenhead Missing Links scheme has been completed. This is a cycle route that connects current and future residential areas in the north with the town centre and railway station, making active travel across Maidenhead safer and more convenient.

Maidenhead Housing Sites Enabling Works. The improvements needed to help with additional traffic associated with the regeneration of the town centre and the development of the Maidenhead Golf Course site have now been completed leading to improvements in traffic flow.

Improvements to the crossing between the station and town centre and associated changes to the layout of the A308 / Queen Street junction, as well as a new traffic signal scheme have been completed. A two-way traffic operation scheme on Broadway has been completed, this is allowing vehicles to turn left or right out of the Broadway (Nicholsons) car park and left or right onto Frascati Way. Drivers are now able to access the M4, A308 and A4 from the car park without having to travel through the town centre.

Stafferton Way Link Road has been completed for some time, connecting the A4 and A308. The link helps to reduce congestion in front of the rail station and at critical junctions along the A4.

### Bray

The M4 Smart Motorway scheme has been completed. This will use the latest technology to improve journeys by monitoring traffic flow and setting speed limits accordingly to keep traffic moving smoothly instead of continually stopping and starting.

The widening of the A308 between Holyport Road roundabout and Upper Bray Road has improved traffic flow at the junction and reduced congestion at peak times. The junction of the A308 and Holyport Road are now being further upgraded with a roundabout with increased capacity.

### Windsor

The Local Cycling & Walking Infrastructure Plan proposes a suite of prioritised investment across the Borough to make walking a natural choice for more of the short, everyday journeys people make to, from and around the town. Stovell Road and Barry Avenue cycling and walking routes received additional 'quietway' route improvements.

Changes to the operation of the traffic signals at the Imperial Road/St Leonards Road and Clewer Hill Road / Winkfield Road junctions have reduced journey times and improved traffic flow at this bottleneck.

Other areas where improvements have been delivered include the Maidenhead Road/Stovell Road junction where traffic signals have been replaced with a roundabout to improve traffic flow and the Arthur Road/Alma Road junction where coaches are banned from turning right onto Arthur Road when leaving the coach park.

## Conclusions and Priorities

### Monitoring Data

Annual mean values for NO<sub>2</sub> have decreased significantly since 2015. The maximum NO<sub>2</sub> concentrations in 2019 within all five AQMAs, when distance corrected to nearest relevant exposure (i.e. building façade of a residential property), was below 10% the annual mean objective (<36 µg/m<sup>3</sup>).

The monitoring results in 2024, show continued compliance with the AQO with concentrations below 36 µg/m<sup>3</sup> for six consecutive years. The maximum NO<sub>2</sub> concentration in the Imperial Road/ St Leonards Road Junction AQMA has been below 10% of the objective (<36 µg/m<sup>3</sup>) for eight consecutive years.

Overall monitoring results across the Borough in 2024 show a further decrease in concentrations with levels below those recorded in 2020 during Covid-19. Based on the evidence that concentrations are continuing to decrease across the Borough and having achieved the required consecutive years of compliance the council has revoked all AQMAs.

The PM<sub>10</sub> results remain well below the AQOs with an annual mean concentration of 18.4 µg/m<sup>3</sup> in 2024. It should be noted that changes in concentrations can occur from year to year due to weather conditions. The council has installed air quality sensors to monitor PM<sub>10</sub> and PM<sub>2.5</sub> within each of the five AQMAs, monitoring results show annual mean concentration in 2024 well below the PM<sub>10</sub> objective and PM<sub>2.5</sub> limit values.

### Planned Measures

The regeneration of Maidenhead town centre and the arrival of the Elizabeth Line represent both a challenge and an opportunity in driving forward air quality improvements in the area.

The Royal Borough has appointed Countryside as Joint Venture Partners to redevelop four council owned town centre sites accumulating to approximately 1200 new homes across 6.3 hectares of land, while other developers are independently progressing with plans for other sites within and around the town centre. All these sites are being developed with low levels of on-site parking and include residential and workplace travel plans designed to promote sustainable travel patterns. Opportunities are being taken to review the operation and layout of the town centre road network to reduce unnecessary through traffic and improve provision for active travel modes.

The Local Cycling & Walking Infrastructure Plan was adopted in 2022 and is progressing a new pipeline of capital investment in walking and cycling facilities across the Borough. This included delivery of improvements to a key 'quietway' route into Windsor in 2023, and work is complete on King Street in Maidenhead town centre to introduce the first phase of proposed improved environments for pedestrians and people cycling.

An Electric Vehicle Chargepoint Implementation Plan outlining how the Royal Borough will bring forward hundreds more charging points for electric vehicles, helping to support the move to greener travel, has been approved in February 2023. In spring 2024, the Borough was awarded Local EV Infrastructure funding from the government, to support the accelerated rollout of chargepoints for home charging on-street. The council is currently tendering for suppliers to deliver on-street charging.

Windsor Visitor Economy scheme has introduced substantial public realm enhancements and the pedestrianisation of Castle Hill in proximity of Windsor Castle, as well as a series of small-scale wayfinding interventions throughout the town. The pedestrianisation of the area outside Windsor Castle presents both safety and air quality benefits. Furthermore, the wider wayfinding interventions shall improve visitor routing along main routes within the town centre, primarily between key transport nodes and Windsor Castle.

The Borough has introduced its first, trial 'school street' in April 2024, in Cox Green. The initiative is designed to promote walking and cycling – including 'park and stride' arrangements – for children traveling to school, for cleaner air at the school gate.

#### New LTP and Air Quality Strategy

The council is developing a new LTP. This strategic plan will identify how the transport networks and services are performing now, and where changes and investment will be needed in the future. The new LTP will be an overarching document pulling together the

progress made in recent years as well as building on recently adopted new strategies, including the Environment and Climate Strategy, and the LCWIP.

In accordance with Defra's Technical Guidance LAQM TG22, the council has revoked the AQMAs and approved a local Air Quality Strategy. The strategy will form an integral part of the emerging LTP.

## How to get Involved

Public consultations and local residents' surveys are used to inform the council's decisions and policies.

Transport consultations include,

- Local Transport Plan: Vision and Themes
- Norfolk Park area consultation
- Supported bus services
- 20mph in Stovell Road area, Windsor
- St Leonards Road, Windsor - Upgraded pedestrian crossing near Bolton Road

In addition to commissioning its own residents' survey, the Council also takes part in the National Highways and Transport (NHT) annual benchmarking survey where residents can give their views on a wide range of transport issues. The results are used to inform future investment programmes. For further information visit, <https://www.rbwm.gov.uk/transport-and-streets/transport-consultations> or email the Transport team: [traffic@rbwm.gov.uk](mailto:traffic@rbwm.gov.uk)



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# 1 Local Air Quality Management

This report provides an overview of air quality in Royal Borough of Windsor and Maidenhead during 2025. 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 Royal Borough of Windsor and Maidenhead 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 be achieved and maintained and provide dates by which measures will be carried out.

The Royal Borough of Windsor and Maidenhead currently does not have any declared AQMAs. In May 2025 the council revoked all five AQMAs:

- 1. Maidenhead** – declared in 2005 and amended in 2009, compliant for 6 consecutive years. Revoked in 2025 (Order 2025 No1).
- 2. Windsor** – declared in 2005 and amended in 2009, compliant for 6 consecutive years. Revoked in 2025 (Order 2025 No2).
- 3. Bray/M4** – declared in 2009, compliant for 6 consecutive years. Revoked in 2025 (Order 2025 No3).
- 4. Wraybury/M25** - declared in 2014, compliant for 6 consecutive years. Revoked in 2025 (Order 2025 No4).
- 5. Imperial Road/St Leonards Road Junction** – declared in 2014, compliant for 8 consecutive years. Revoked in 2025 (Order 2025 No5).

The details of the revoked AQMAs can be viewed online: <https://uk-air.defra.gov.uk/aqma/revoked>

The council has approved a local Air Quality Strategy this is to prevent, reduce polluting activities. The Local Air Quality Strategy is available on the council's website, <https://www.rbwm.gov.uk/environment-and-waste/environmental-health>

## 2.2 Progress and Impact of Measures to address Air Quality in the Royal Borough of Windsor and Maidenhead

Defra's appraisal of last year's ASR concluded,

*The report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports:*

1. *A local bias adjustment factor has been calculated using the methodology outlined in LAQM.TG(22). However, the text on page 53 appears to quote values which are inconsistent with Table C.1. The quoted B values in the text are 1% and 22%, whereas the B values in the table are 1% and 20%. Following the calculations for both sets of B values yields the same factor and therefore the concentrations within the report are not affected.*
2. *It would be useful to state which AQMA the automatic monitors are located within in Table A.1 for completeness.*
3. *It is clear that the Council have taken the feedback from the previous ASR appraisal and have amended this report accordingly. This is welcomed.*
4. *The Council have stated their intention to revoke all five AQMAs. Following consistent evidence of compliance with the relevant objectives, and evidence that concentrations continue to decrease, this decision is supported. The Council should ensure that details of the revocation are noted in the next reporting year.*
5. *An additional table (Table B.2) has been included to highlight the maximum distance corrected concentrations within each AQMA across the last 5 years. This table is welcomed and supports the decision to revoke all AQMAs. It would be useful to state which site recorded the concentrations to allow for easier cross-referencing between this table and Table A.4.*
6. *Clear maps have been included which show the location of AQMAs and monitoring sites. The maps are easy to read and have been provided at an appropriate scale. It is welcomed that the areas shown on each figure matches the areas shown in the trend graphs (Figure A.1-A.8).*

The Royal Borough of Windsor and Maidenhead has taken forward a number of direct measures during the current reporting year of 2025 in pursuit of improving local air quality.

Details of all measures completed, in progress or planned are set out in Table 2.1.

Twenty-six measures are included within Table 2.1, with the type of measure and the

progress the Royal Borough of Windsor and Maidenhead have made during the reporting year of 2025 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1.

### **2.2.1 Windsor former AQMA**

#### **Redesign of Clarence Road roundabout**

New roundabout layout significantly improved congestion / air quality

#### **Windsor Parking and Transport Strategy**

Car parking includes a ring of small-scale park and ride sites.

#### **Heathrow Bus Funding Agreement**

Hybrid and low-emission buses are used on bus services to Heathrow Airport, and bus frequencies have been increased.

#### **Supported bus services**

Supported bus services under RBWM contract require bus operators to use Euro VI buses or better.

#### **Arthur Road**

A signal-controlled roundabout has been replaced with a roundabout, other signals have been upgraded to MOVA operation, and coaches are banned from turning right onto Arthur Road when leaving the coach park.

#### **Windsor 20mph**

A 20mph speed limit has been implemented in Windsor town centre which may encourage greater numbers of pedestrians and cyclists and improve air quality.

#### **Cycling**

Links between Dedworth and Windsor Town Centre have been improved, including the A308 / Barry Avenue cycle route which has this year received additional 'quietway' cycle route improvements including re-prioritised junctions, path widening and enhanced lighting. Proposals exist for further improvements, derived from the Council's Local Cycling & Walking Infrastructure Plan.

#### **Walking**

The Local Cycling & Walking Infrastructure Plan proposes a suite of prioritised investment across the Borough to make walking a natural choice for more of the short, everyday journeys people make to, from and around the town. Widened footways, side-road entry treatments, accessible crossings and vegetation clearance has created an improved



‘quietway’ walking route along Stovell Road and Barry Avenue. In the Springfield Road area and Norfolk Park areas, new 20 mph speed limits have been introduced in part to create a safer and more comfortable walking and cycling environment.

### **Windsor Visitor Economy Scheme**

£1.56 million of Local Growth Deal funding has been secured from the Thames Valley Berkshire Local Enterprise Partnership for the ‘Windsor Visitor Economy’ scheme. The scheme comprises of public realm enhancements and pedestrianisation of Castle Hill in proximity of Windsor Castle, as well as a series of small-scale wayfinding interventions throughout the town. The purpose of the improvements is to improve the environment for pedestrians, with pedestrianisation and enhancement of the area outside Windsor Castle presenting both safety and air quality benefits. Furthermore, the wider wayfinding interventions shall improve visitor routing along main routes within the town centre, primarily between key transport nodes and Windsor Castle.

### **Electric Vehicle Charging Points in Windsor**

Public chargepoints have been installed at Shell Windsor (Clarence Road), Albert Street, Alma Road, Park Street, Frances Road and St Leonards Road. The council has adopted a new EV Chargepoint Implementation Plan to extend and accelerate the rollout further, and has been awarded government Local EV Infrastructure funding to accelerate the rollout of EV chargepoints for dwellings without driveways.

## **2.2.2 Imperial Road/St Leonards Road Junction former AQMA**

### **New traffic management schemes**

Changes to the operation of the traffic signals at the Imperial Road/St Leonards Road and Clewer Hill Road / Winkfield Road junctions have reduced journey times and improved traffic flow.

### **LEGOLAND travel plan and traffic signage**

The Borough has secured a travel plan to manage staff, hotel guest and day visitor travel to and from the resort. Improved traffic signage has been introduced to encourage visitors to use alternative routes that avoid congested junctions. The aim is to minimise the impact of visitor traffic on the Windsor AQMAs.

## **2.2.3 Wraysbury/M25 – Junction 13 former AQMA**

### **Motorway Emissions**

Monitoring results indicate continued compliance with the AQOs.

## 2.2.4 Bray/M4 former AQMA

### **Motorway Emissions**

Monitoring results indicate continued compliance with the AQOs.

### **Junction Improvements**

The widening of the A308 between Holyport Road roundabout and Upper Bray Road has improved traffic flow at the junction and reduced congestion at peak times. In addition, Stafferton Way Link Road helps to reduce the number of vehicles travelling to Maidenhead turning right into Upper Bray Road. Further improvements to the junction by replacing the mini roundabout with a higher capacity roundabout and creating safer and easier crossing points for walking and cycling are under construction.

## 2.2.5 Maidenhead former AQMA

### **Travel Plans**

The council requires all major new developments to deliver residential and / or workplace travel plans. This is helping to reduce car trips and encourage more sustainable travel patterns. The council is also exploring options with developers and providers for expanding a car club in the town centre to serve a number of major new developments in the area. Also, Maidenhead is part of the easitNETWORK, a project to support and encourage businesses in Maidenhead to adopt sustainable transport options with discounts on rail travel and other sustainable travel products and initiatives:

<https://www.easit.org.uk/easitmaidenhead>.

### **Stafferton Way Link Road**

Stafferton Way Link Road joins the A4 and A308 via Oldfield Road and Stafferton Way. The link helps to reduce congestion in front of the rail station and at critical junctions along the A4. The roundabout at the junction of Stafferton Way and A308 Braywick Road has been enlarged with extra traffic lanes to reduce congestion at this point allowing easier access to Stafferton Way and alternative routes.

### **Chapel Arches**

Residential and workplace travel plans have been secured for the Chapel Arches development. Walking and cycling routes as part of the Chapel Arches development include a contra-flow cycle lane on the eastern section of High Street and a raised table to aid pedestrian crossing movements, as well as public realm improvements.

### **Maidenhead Station Access**

£3.75 million of Growth Deal funding was secured from the Thames Valley Berkshire Local Enterprise Partnership for the 'Maidenhead Station Access' scheme. The scheme has delivered a multi-modal transport interchange, including facilities for buses, taxis and passenger drop-off/pick-up. Parking displaced from the rail station forecourt has been provided in a new facility on Stafferton Way. A new cycle parking hub with capacity for 300 bikes and improvements to the crossing between the station and town centre and associated changes to the layout of the A308 / Queen Street junction have been completed, with CCTV improvements completed this year to give greater confidence to leave cycles at this location.

### **Maidenhead Missing Links**

£2.42 million of Growth Deal funding was secured from the Thames Valley Berkshire Local Enterprise Partnership for the 'Maidenhead Missing Links' scheme, now completed. This connects North Maidenhead to major development sites in and around Maidenhead town centre and onwards to Maidenhead Station. The scheme completes a new 'inner-ring' for pedestrians and cyclists and features crossings of Strand Water and the A4.

### **Maidenhead Housing Sites Enabling Works**

£4.21 million Local Growth Deal funding and £1.07 million Business Rates Retention Pilot funding was secured from the Thames Valley Berkshire Local Enterprise Partnership for the 'Maidenhead Housing Sites Enabling Works'. This will deliver capacity improvements at six key junctions around Maidenhead:

- A308(M) / A308 / A330 / The Bingham;
- A4 / A308;
- A4 / B4447 / Market Street;
- A4 / B3028 / Lassell Gardens;
- A4 / A4094 / Guards Club Road;
- A308 / Stafferton Way / Rushington Avenue.

The improvements are needed to cope with additional traffic associated with the regeneration of the town centre and the development of the Maidenhead Golf Course site. They will also enable commercial development to come forward in other parts of Maidenhead. These scheme alterations have now been completed leading to improvements in traffic flow.

### **Electric Vehicle Chargepoints in Maidenhead**

Public chargepoints have been installed at Hines Meadow Car Park, College Road, Cromwell Road, Lower Boyndon Road, Braywick Leisure Centre and Vicus Way car park.

The council has adopted a new EV Chargepoint Implementation Plan to extend and accelerate the rollout further.

### 2.2.6 Future Priorities

The Royal Borough of Windsor and Maidenhead's priorities for the coming year are:

- The Electric Vehicle Chargepoint Implementation Plan approved in February 2023. In March 2024, the Borough was awarded Local Electric Vehicle Infrastructure (LEVI) Capital Fund from the government, to support the accelerated rollout of chargepoints. The implementation plan helps to support the move to greener travel and ensure charging provision for electric vehicles keeps pace with demand. The council is currently undertaking a tender exercise to identify suitable project partners. Further project development work and consultation to help identify specific chargepoint locations and roll-out timetable will be carried out once suppliers have been contracted with.
- The Borough is developing capital investment schemes in improved walking and cycling facilities in the Maidenhead and Windsor, for delivery over the next 2 years.
- The Borough has introduced its first, trial 'school street' in April 2024, in Cox Green. The initiative is designed to promote walking and cycling – including 'park and stride' arrangements – for children traveling to school, for cleaner air at the school gate.

The Royal Borough of Windsor and Maidenhead has achieved the AQOs and anticipates that the measures stated above and in Table 2.1 including the top three key measures will deliver further improvements to air quality.

Table 2.1 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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
26	Encourage the use of electric vehicles by providing public charging points	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2018	2035	RBWM Transport Dept.	OLEV, CIL LEVI	Funded	£500k - £1m	Inviting tenders for on-street charging  Early supplier engagement for car park and rapid recharge facilities			<p>The Borough adopted an EV Chargepoint Implementation Plan in February 2023</p> <p>The Borough is targeting c. 600 on-street public chargepoints, c. 125 car park public chargepoints and c. 100 rapid recharge charging sockets at service stations by 2035</p> <p>Currently there are 69 car park public chargepoints, 39 on street chargepoints and 2 rapid recharge points – many of these delivered in 2022- This is supplemented by a wide network of non-public chargepoints and home charging</p>	
9	Pedestrian and Cycling Facilities. New/improved routes and crossing facilities	Transport Planning and Infrastructure	Cycle network	2012	2032	RBWM Transport	Council	Reliant on ad-hoc grant funding awards		Rolling programme		See measure 2	<p>The Borough has 19.5km of traffic-free paths, and an additional 19.6km of footways that can be used by people cycling- The Borough adopted a Local Cycling &amp; Walking Infrastructure Plan in 2022 and is progressing a new pipeline of capital investment in walking and cycling facilities across the Borough.</p>	
11	Safer routes to schools	Promoting Travel Alternatives	Promotion of cycling and walking	2014	Ongoing	RBWM Transport	Council	Rolling, prioritised capital programme	Rolling, prioritised capital programme	Rolling programme			First school street pilot launched at St Adrian's Close, Cox Green in April 2024	

Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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	Improve accessibility and content of council's AQ website	Public Information	Via the internet	2025	2026	RBWM Environmental Health	Council	Not Funded		Implementation			Measure introduced in the AQ strategy approved by cabinet	
2	Education Programmes. Road safety and cycle training with primary schools.	Promoting Travel Alternatives	Promotion of cycling	2012	2032	RBWM Transport / BeSpoke Cycling Instruction / Department for Transport. Before April 2022: also Project Centre	Council/Central Government	Funded	£10k - 50k	Implementation	3%	Reduction in car journeys Monitored via survey	Ongoing delivery	The 15% reduction in car journeys To deliver a 3% reduction in emission in combination with measure 3, 9, 11 and 13
3	Travel information & advice - Providing information on available travel options	Public Information	Via other mechanisms	2012	2032	RBWM Transport / Bucks County Council / transport operators	Council	Funded	£10k - 50k	Implementation	3% reduction in emission in combination with measure 2, 9, 11 and 13	Number of local bus passenger journeys originating in the authority area undertaken each year	<a href="#">Bus Service Improvement Plan</a> published	The council has developed targets about patronage, user satisfaction, reliability and journey times with the aim to meet them by 2026.
4	Travel Plans - Promote and monitor travel plans for workplaces, hospitals and schools. Secure Travel Plans through the Planning process.	Promoting Travel Alternatives	Workplace Travel Planning	2012	2032	RBWM Transport & Infrastructure teams	Developers & Council funding	Funded	£10k - 50k	Implementation	3%	Achieve 100% Schools Travel Plans. < 70% driving to work in year 1 <60% by year 3 of the travel plan	100% of state schools and 3 independent schools have travel plans. All schools are being encouraged to upload information onto the Modeshift database taking away the need for paper-based travel plans. Council encourage/facilitate home-working	Travel plans can achieve a reduction in car driver trips. Combining all travel plans a 3% reduction in emission reduction could be achieved
5	Lift sharing - To develop an area-wide lift-sharing. Establishing self-contained lift-sharing schemes	Alternatives to private vehicle use	Car & lift sharing schemes	2014	2032	RBWM Transport.		Not Funded		Implementation			A local lift share scheme was set up in 2014	
6	E-services - Providing online services	Promoting Travel Alternatives	Other	2012	2032	RBWM	Council			Implementation			a) Applications b) Payments c) Reporting	

Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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
	to reduce the need to travel													
7	Ticketing solutions - Promoting public transport	Promoting Travel Alternatives	Other	2012	2032	RBWM Transport	Council			Implementation			<p>Bus Service Improvement Plan published, with bid (not funded) submitted to government for funding to improve promotion of buses</p> <p>The council would like to provide funding of approximately £35,000-£65,000 to conduct a feasibility study into the implementation of a multi-operator ticketing system.</p>	Most operators now have mobile tickets but there no unified ticketing system within the Borough
8	Urban traffic control - Updating and extending the current UTC, in conjunction with better traffic surveys.	Traffic Management	UTC, Congestion management, traffic reduction	2012	2032	RBWM Highways	Council	Funded		Implementation	3%	Average journey time	MOVA systems installed at key junctions	<p>MOVA upgrades at - Imperial Rd/ St Leonards Rd Junction.</p> <p>- Clarence Road / Alma Road</p> <p>- A308 / Queen Street &amp; A308 /Broadway junctions</p>
9	Pedestrian and Cycling Facilities. New/improved routes and crossing facilities	Transport Planning and Infrastructure	Cycle network	2012	2032	RBWM Transport	Council	Funded		Rolling programme	3%	See measure 2	<p>The Borough has 19.5km of traffic-free paths, and an additional 19.6km of footways that can be used by people cycling- The Borough adopted a <a href="#">Local Cycling &amp; Walking Infrastructure Plan</a> in 2022 and is progressing a new pipeline of capital investment in walking and cycling facilities across the Borough</p>	Reduction of emission of 3% in conjunction with measure 2, 11 and 13
10	Junction Improvements - Modifying the layout of junctions experiencing	Traffic Management	UTC, Congestion management, traffic reduction	2015	2021	RBWM Highways	Council	Funded	£1 million - £10 million	Completed	3%	Average journey time	<p>Junction Improvements, A308 and Holyport Road roundabout upgrade to increase capacity and safety for</p>	<p>Completed: A308/Upper Bray Road junction.</p> <p>-Clarence Road / Victoria Street / St Leonards</p>



Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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
	chronic congestion												walking and cycling.	Road. Six key junctions on the A4 and A308
11	Safer routes to schools - Identify priorities for investment through School Travel Plans and take forward priority improvements through capital programmes	Promoting Travel Alternatives	Promotion of cycling and walking	2014	Ongoing	RBWM Transport	Council	Rolling, prioritised capital programme	Rolling, prioritised capital programme	Rolling programme	3%	See measure 2	First school street pilot launched at St Adrian's Close, Cox Green in April 2024	
12	Parking enforcement - Decriminalised parking enforcement	Traffic Management	Workplace Parking Levy, Parking Enforcement on highway											Completed in 2009
13	Pedestrian / Cycling Facilities - New/improved routes & crossing facilities	Transport Planning and Infrastructure	Cycle network	2016	2032	RBWM Transport	Council			completed			The Borough's Big Conversation exercise has led to the development of a Local Cycling & Walking Infrastructure Plan. Adopted by Cabinet in June 2022	Completed, see measure 9
14	Supported bus services - Providing financial support to local bus services	Promoting Low Emission Transport	Other	2015	2032	RBWM Transport	Council	Funded		Ongoing			The Borough supports a network of services that are not currently commercially viable	Increasing cost of operating bus services means that although the Borough has increased its budget for supported bus services, this will deliver fewer services going forward
15	Public transport infrastructure Improvements - Enhance accessibility and attractiveness of public transport and priority bus routes	Transport Planning and Infrastructure	Bus route improvements	2016	2020	RBWM Transport	Council	Funded		Implementation			Improved public transport information, including real-time. Ongoing programme to upgrade stops to provide raised kerbs to improve accessibility	Limited availability of funding.



Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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
16	Quality bus partnership - Develop high quality, cross boundary bus services	Transport Planning and Infrastructure	Bus route improvements	2016	2032	RBWM Transport	Council	Funded		Implementation			The council has adopted a Bus Service Improvement Plan identifying how bus services can be improved and ridership grown	Government funding for delivering the Bus Service Improvement Plan is required.
17	Park & Ride - Exploring opportunities for park and ride	Promoting Travel Alternatives	Other	2014	2016	RBWM Transport				Completed		See measure 9 and 2	Services were formerly introduced from: Centrica, Windsor (Easter and summer); Home Park, Windsor; King Edward VII Car Park; Windsor; and LEGOLAND, Windsor	(none)
18	Inter-urban coach services	Transport Planning and Infrastructure	Bus route improvements	2014	2015	RBWM Transport				Aborted			First Group introduced X9 service from Maidenhead to High Wycombe in 2014.	The service was subsequently withdrawn due to lack of use
19	Rail partnerships - Delivering Maidenhead Station Access scheme	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2016	2021	RBWM Transport	Council	Funded	£1 million - £10 million	Completed			Maidenhead Station multi-modal interchange and improved ped/ cycle links to the town centre	completed
20	Parking standards - Imposing strict maximum parking standards for new development as identified in the Borough's Parking Strategy	Traffic Management	Other	2019	2032	RBWM Transport and Infrastructure	Council			Implementation			New town centre residential developments have very low levels of parking. Travel Plans are required for all major new developments. Electric vehicle charge points being sought for new development	(none)
21	Public parking regimes - Setting parking charges and permitted length of stay	Traffic Management	Other	2012	2032	RBWM Enforcement	Council			Implementation			Stating parking charges and permitted length of stay in public car parks in town centre locations to favour short-stay parking for shoppers and visitors and encourage use of public transport	

Measure No.	Measure Title	Category	Classification	Year Measure Introduced	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
22 and 23	Improve efficiency of Council's own fleet	Vehicle Fleet Efficiency	Other	2018	2032	RBWM Various Service Areas that retain fleet vehicles	Council	Partially Funded		Implementation			The council fleet has been reduced to 8 directly managed vehicles	(none)
24	Hybrid and electrical vehicles. Promoting, where possible, the use of less and non-polluting vehicles	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	2018	2032	RBWM Transport	Council			Implementation			<a href="#">New web pages introduced on council website</a>	(none)
25	Reduction of speed limits to 20mph zone	Traffic Management	Reduction of speed limits, 20mph zones	2016	2032	RBWM Highways and RBWM Transport	Council			Ongoing activity			Ongoing consideration of proposals for 20mph speed limits in areas suited to them, where this can support greater uptake of walking and cycling and where traffic can be encouraged to utilise more capacious arterial roads that are less susceptible to congestion	Additional 20 mph speed limits were introduced in residential areas during 2022
26	Electric vehicle charge points	Transport Planning and Infrastructure	Other	2018	2035	RBWM Transport	OLEV, LEVI bid, CIL	Funded		Implementation			<p>The Borough adopted an EV Chargepoint Implementation Plan in February 2023.</p> <p>The Borough is targeting c. 600 on-street public chargepoints, c. 125 car park public chargepoints and c. 100 rapid recharge charging sockets at service stations by 2035. Currently there are 69 car park public chargepoints, 39 on street chargepoints and 2 rapid recharge points.</p>	Many of these delivered in 2022- This is supplemented by a wide network of non-public chargepoints and home charging

## 2.3 PM<sub>2.5</sub> – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy<sup>1</sup>, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM<sub>2.5</sub>). There is clear evidence that PM<sub>2.5</sub> (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases. The Public Health Outcomes Framework local indicator D01 (estimated fraction of mortality attributable to particulate air pollution) in 2023 for the Borough was 5.5%, the average for England was 5.2%.

Defra provides background mapping data to assist local authorities in support of Review and Assessment of local air quality. The 2024 background maps for the Borough show all background concentrations of PM<sub>2.5</sub> are significantly below the annual mean objective. The highest and average concentrations within the Borough are 9.2µg/m<sup>3</sup> (Grid reference 501500, 177500 - south side of the M4 Junction 5) and 7.2µg/m<sup>3</sup> respectively.

In addition, the Royal Borough of Windsor and Maidenhead has installed five air quality sensors, within in each former AQMAs to monitor PM<sub>10</sub> and PM<sub>2.5</sub>. The results for 2024 show annual mean concentrations well below the objective and limit values.

The Borough is reducing emissions of PM<sub>2.5</sub> from local sources by implementing the following measures:

- Promoting workplace, school and personalised travel planning
- Continual improvement of signal-controlled junctions
- Improving facilities for cycling and walking
- Promoting public transport
- Electric Vehicle Chargepoint Implementation Plan
- Designated Smoke Control Area in West Windsor

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<sup>1</sup> Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

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

This section sets out the monitoring undertaken within 2024 by the Royal Borough of Windsor and Maidenhead 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

The Royal Borough of Windsor and Maidenhead undertook automatic (continuous) monitoring at 6 sites during 2024. Table A.1 in Appendix A shows the details of the automatic monitoring sites. The [https://www.airqualityengland.co.uk/local-authority/?la\\_id=293](https://www.airqualityengland.co.uk/local-authority/?la_id=293) page presents automatic monitoring results for the Royal Borough of Windsor and Maidenhead, with automatic monitoring results also available through the UK-Air website.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

##### 3.1.2 Non-Automatic Monitoring Sites

The Royal Borough of Windsor and Maidenhead undertook non- automatic (i.e. passive) monitoring of NO<sub>2</sub> at 23 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<sub>2</sub>)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO<sub>2</sub> annual mean concentrations for the past five years with the air quality objective of 40µg/m<sup>3</sup>. 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 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 the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Table A.5 in Appendix A compares the ratified continuous monitored NO<sub>2</sub> hourly mean concentrations for the past five years with the air quality objective of 200µg/m<sup>3</sup>, not to be exceeded more than 18 times per year.

Over the past five years air quality in the Borough has improved significantly. Monitoring results in 2024 show no exceedances of the annual mean objective of 40 µg/m<sup>3</sup> for NO<sub>2</sub>, all annual mean concentrations are below 36 µg/m<sup>3</sup> and not requiring distance correction.

Since 2019 the maximum NO<sub>2</sub> concentration, including distance corrected values, within the five former AQMAs has been below 10% the annual mean objective (<36 µg/m<sup>3</sup>).

The Imperial Road/ St Leonards Road Junction AQMA has recorded concentrations below 36 µg/m<sup>3</sup> for a consecutive height-year period. Comparison within the AQO has been made against distance corrected values, and not with those reported in Table A.4.

Table A.2 in Appendix B presents the maximum NO<sub>2</sub> concentration within the former AQMAs for the past five years. Note that the concentration data presented in

Table A.2 includes distance corrected values, only where relevant.

Having achieved the required consecutive years of compliance with the AQO and following Defra's recommendation the council has revoked the five AQMAs.

### 3.2.2 Particulate Matter (PM<sub>10</sub>)

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM<sub>10</sub> annual mean concentrations for the past five years with the air quality objective of 40µg/m<sup>3</sup>.

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

Over the past five years PM<sub>10</sub> annual mean and daily mean concentrations have remained well below the respective air quality objectives. The annual mean concentration in 2024 was 18.4µg/m<sup>3</sup>, however it should be noted that data capture rate was only 52% and the mean was annualised in accordance with LAQM TG22 guidance. PM<sub>10</sub> monitoring was also undertaken at 5 air quality sensor sites within the former AQMAs, with recorded concentrations across the sites varying from 10 to 11µg/m<sup>3</sup>.

### 3.2.3 Particulate Matter (PM<sub>2.5</sub>)

Table A.8 in Appendix A presents the ratified and adjusted monitored PM<sub>2.5</sub> annual mean concentrations for 2024. Monitoring was undertaken at 5 air quality sensors sites within the former AQMAs for the first time in 2024. The PM<sub>2.5</sub> recorded concentrations across the sites varies from 6 to 7µg/m<sup>3</sup>, well below the current limit value of 20µg/m<sup>3</sup>.

## 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? <sup>(1)</sup>	Monitoring Technique	Distance to Relevant Exposure (m) <sup>(2)</sup>	Distance to kerb of nearest road (m) <sup>(1)</sup>	Inlet Height (m)
MW1	Frascati Way	Roadside	488626	180994	NO2	Yes	Maidenhead	Chemiluminescent	5.0	2.0	1.7
MW1	Frascati Way	Roadside	488626	180994	PM10	Yes	Maidenhead	BAM	5.0	2.0	1.7
WM001	Maidenhead Bridge Rd	Roadside	489651	181323	PM10, PM2.5	Yes	Maidenhead	SCS Cube AQ sensor	5.0	2.0	2.5
WM002	Wraysbury M25	Roadside	502258	172322	PM10, PM2.5	Yes	Wraysbury M25	SCS Cube AQ sensor	5.0	2.0	2.7
WM003	Windsor A322	Roadside	495664	176591	PM10, PM2.5	Yes	Windsor	SCS Cube AQ sensor	5.0	4.0	2.3
WM004	Windsor St Leonards Rd	Kerbside	495314	175551	PM10, PM2.5	Yes	Windsor St Leonards Rd	SCS Cube AQ sensor	5.0	1.5	2.2
WM005	Bray A308	Roadside	489974	178721	PM10, PM2.5	Yes	Bray M4	SCS Cube AQ sensor	10.0	1.0	2.5

**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) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co-located with a Continuous Analyser?	Tube Height (m)
WM1	Longmead	Urban Background	494067	176764	NO2	No	5.0	1.0	No	3.0
WM5B	Queen Street	Roadside	488864	180951	NO2	Yes - Maidenhead	10.0	2.0	No	2.0
WM10A	Imperial Road	Roadside	495606	176364	NO2	Yes - Windsor	8.0	2.0	No	2.0
WM11B	Straight Road	Kerbside	498388	174797	NO2	No	11.0	1.0	No	1.5
WM13	Wraysbury Road	Roadside	502017	172541	NO2	Yes - Wraysbury/M25	5.0	2.0	No	2.0
WM15	Wraysbury Road	Roadside	502259	172322	NO2	Yes - Wraysbury/M25	5.0	2.0	No	2.0
WM19	Windsor RWW roundabout	Roadside	495664	176592	NO2	Yes - Bray/M25	5.0	2.5	No	1.5
WM21, WM22, WM23	Maidenhead 3	Roadside	488626	180994	NO2	Yes - Maidenhead	5.0	2.0	No	1.5
WM28	Keate's Lane	Roadside	496604	177866	NO2	No	3.0	2.0	No	2.0
WM29	M4 Windsor Road	Roadside	489975	178721	NO2	Yes - Bray/M25	10.0	2.0	No	2.0
WM29B	Holyport Road	Roadside	490060	178593	NO2	Yes - Bray/M25	10.0	2.0	No	2.0
WM30A	Queen's Road (Datchet)	Kerbside	498591	177065	NO2	No	5.0	1.0	No	2.0



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) <sup>(1)</sup>	Distance to kerb of nearest road (m) <sup>(2)</sup>	Tube Co-located with a Continuous Analyser?	Tube Height (m)
WM30B	High Street (Datchet)	Kerbside	498669	176976	NO2	No	5.0	1.0	No	2.0
WM30C	London Road (Datchet)	Kerbside	498770	177077	NO2	No	3.0	1.0	No	2.0
WM31	Arthur Road	Kerbside	495896	176939	NO2	Yes - Windsor	10.0	1.0	No	2.0
WM32	Arthur Road	Kerbside	496082	176903	NO2	Yes - Windsor	2.5	1.0	No	2.0
WM33	Arthur Road	Kerbside	496312	176886	NO2	Yes - Windsor	0.0	1.0	No	2.0
WM03	St Leonards Road	Kerbside	495331	175569	NO2	Yes - Imperial/St Leonards Road Junction	7.0	1.0	No	2.0
WM03A	St Leonards Road	Kerbside	495294	175556	NO2	Yes - Imperial/St Leonards Road Junction	7.0	1.0	No	2.0
WM03B	St Leonards Road	Kerbside	495314	175551	NO2	Yes - Imperial/St Leonards Road Junction	5.0	1.0	No	2.0
WM03C	St Leonards Road	Roadside	495413	175587	NO2	Yes - Imperial/St Leonards Road Junction	5.0	2.0	No	2.0
WM04A	Osborne Road	Kerbside	496380	176035	NO2	No	3.0	1.0	No	2.0
WM013 A	Bridge Road	Roadside	489652	181323	NO2	Yes - Maidenhead	5.0	2.0	No	2.0

**Notes:**

- (1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).
- (2) N/A if not applicable.

**Table A.3 – Annual Mean NO<sub>2</sub> Monitoring Results: Automatic Monitoring (µg/m<sup>3</sup>)**

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MW1	488626	180994	Roadside	95.4	54.9	24.7	26.4	26.1	23.2	23.1

☒ 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<sub>2</sub> 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<sup>3</sup>.

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> 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<sub>2</sub> Monitoring Results: Non-Automatic Monitoring (µg/m<sup>3</sup>)**

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
WM1	494067	176764	Urban Background	98.7	98.7	12.4	12.9	13.4	11.8	9.5
WM5B	488864	180951	Roadside	98.7	98.7	19.3	20.9	22.4	22.1	17.6
WM10A	495606	176364	Roadside	72.2	72.2	25.4	31.7	29.9	28.4	22.3
WM11B	498388	174797	Kerbside	83.0	83.0	25.9	29.4	31.6	26.1	20.5
WM13	502017	172541	Roadside	91.4	91.4	25.7	26.9	26.8	23.3	21.0
WM15	502259	172322	Roadside	98.7	98.7	27.2	27.7	27.9	25.9	22.9
WM19	495664	176592	Roadside	98.7	98.7	21.6	23.7	25.7	21.6	19.1
WM21, WM22, WM23	488626	180994	Roadside	98.7	98.7	25.2	26.6	27.8	25.2	22.1
WM28	496604	177866	Roadside	98.7	98.7	20.5	23.5	23.6	20.8	17.6
WM29	489975	178721	Roadside	89.5	89.5	30.6	33.2	33.3	29.0	26.6
WM29B	490060	178593	Roadside	98.7	98.7	22.9	24.8	24.3	22.6	18.5
WM30A	498591	177065	Kerbside	98.7	98.7	19.1	22.4	22.0	20.3	16.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
WM30B	498669	176976	Kerbside	98.7	98.7	22.4	26.3	25.9	22.7	19.0
WM30C	498770	177077	Kerbside	91.1	91.1	29.8	34.6	35.8	31.3	26.3
WM31	495896	176939	Kerbside	98.7	98.7	26.2	30.5	29.1	25.1	21.3
WM32	496082	176903	Kerbside	90.8	90.8	21.6	23.0	24.4	21.4	19.1
WM33	496312	176886	Kerbside	89.2	89.2	24.0	27.8	31.4	29.1	24.8
WM03	495331	175569	Kerbside	98.7	98.7	26.7	27.9	26.1	24.0	20.8
WM03A	495294	175556	Kerbside	98.7	98.7	30.9	32.1	34.1	29.6	23.1
WM03B	495314	175551	Kerbside	90.8	90.8	34.1	35.0	39.1	31.2	28.5
WM03C	495413	175587	Roadside	98.7	98.7	16.4	16.7	18.9	16.3	13.2
WM04A	496380	176035	Kerbside	98.7	98.7	20.9	22.6	24.1	20.9	18.2
WM013A	489652	181323	Roadside	98.7	98.7	30.6	28.3	31.9	29.1	24.7

☒ 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  $\mu\text{g}/\text{m}^3$ .

Exceedances of the  $\text{NO}_2$  annual mean objective of  $40\mu\text{g}/\text{m}^3$  are shown in **bold**.

$\text{NO}_2$  annual means exceeding  $60\mu\text{g}/\text{m}^3$ , indicating a potential exceedance of the  $\text{NO}_2$  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 to A.1.8 – Trends in Annual Mean NO<sub>2</sub> Concentrations**

Figure A1 - NO<sub>2</sub> annual mean concentrations for site MW1 between years 2016 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

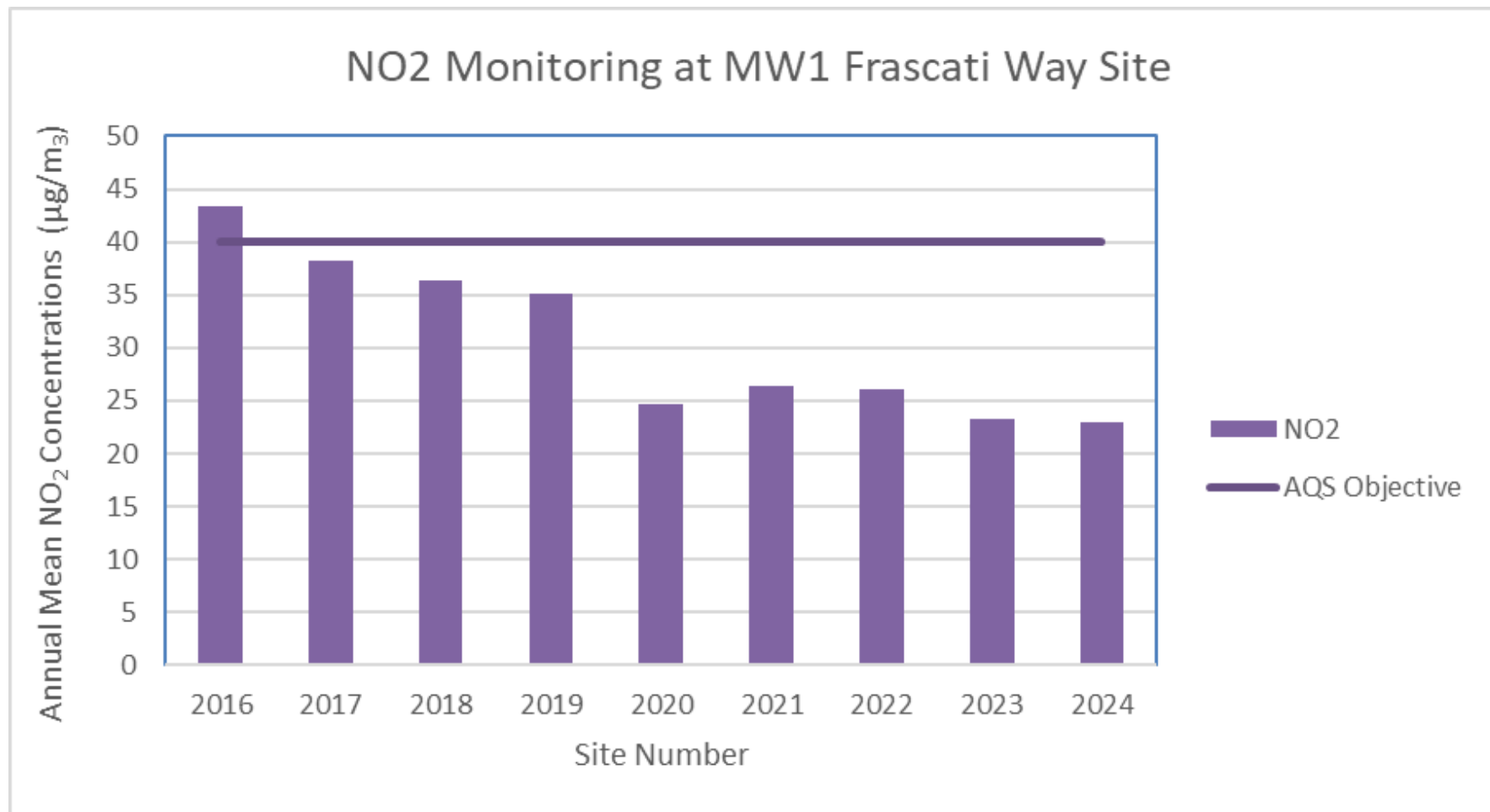


Figure A1.1 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Maidenhead AQMA between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

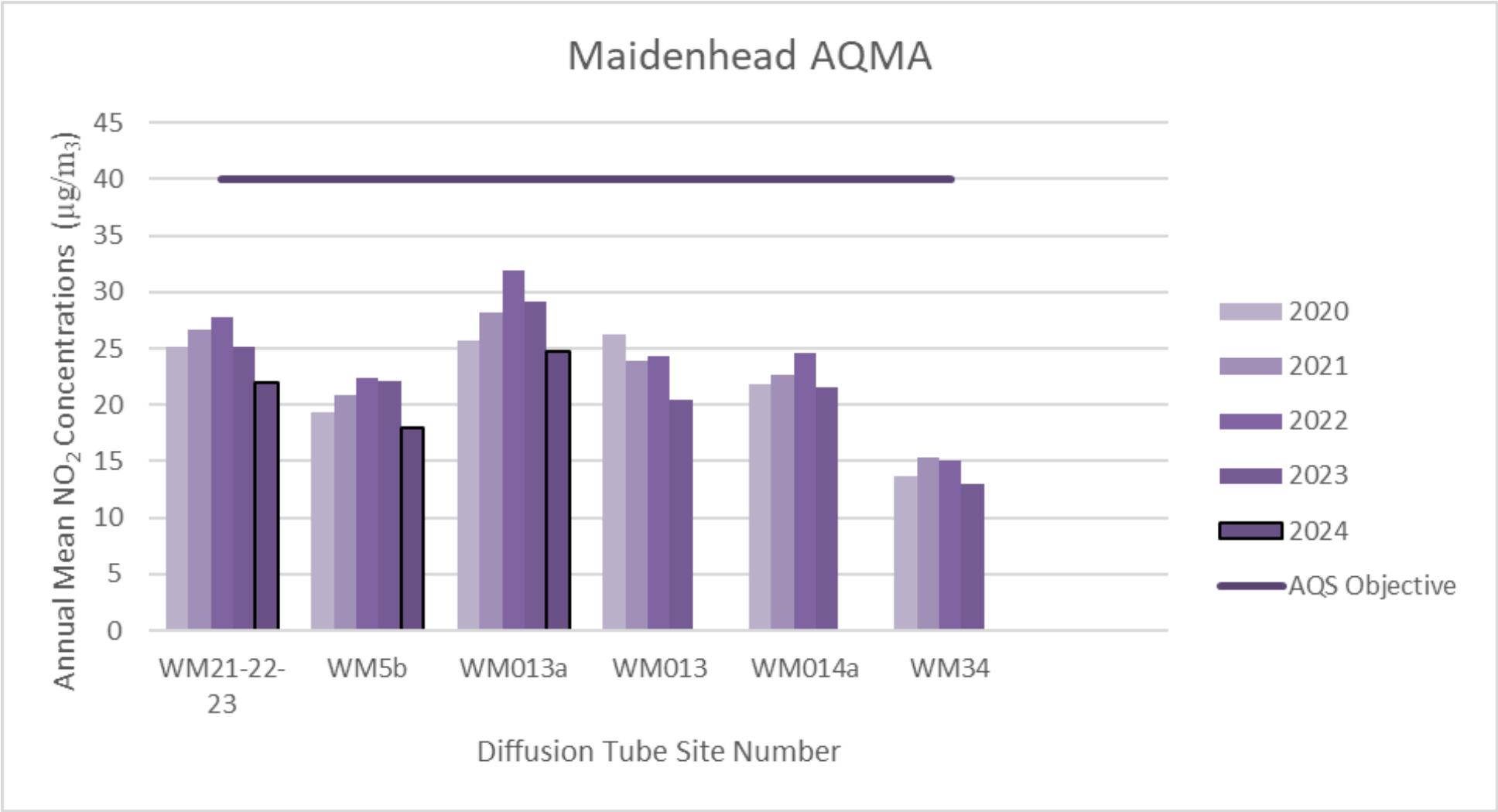




Figure A1.2 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Bray AQMA between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

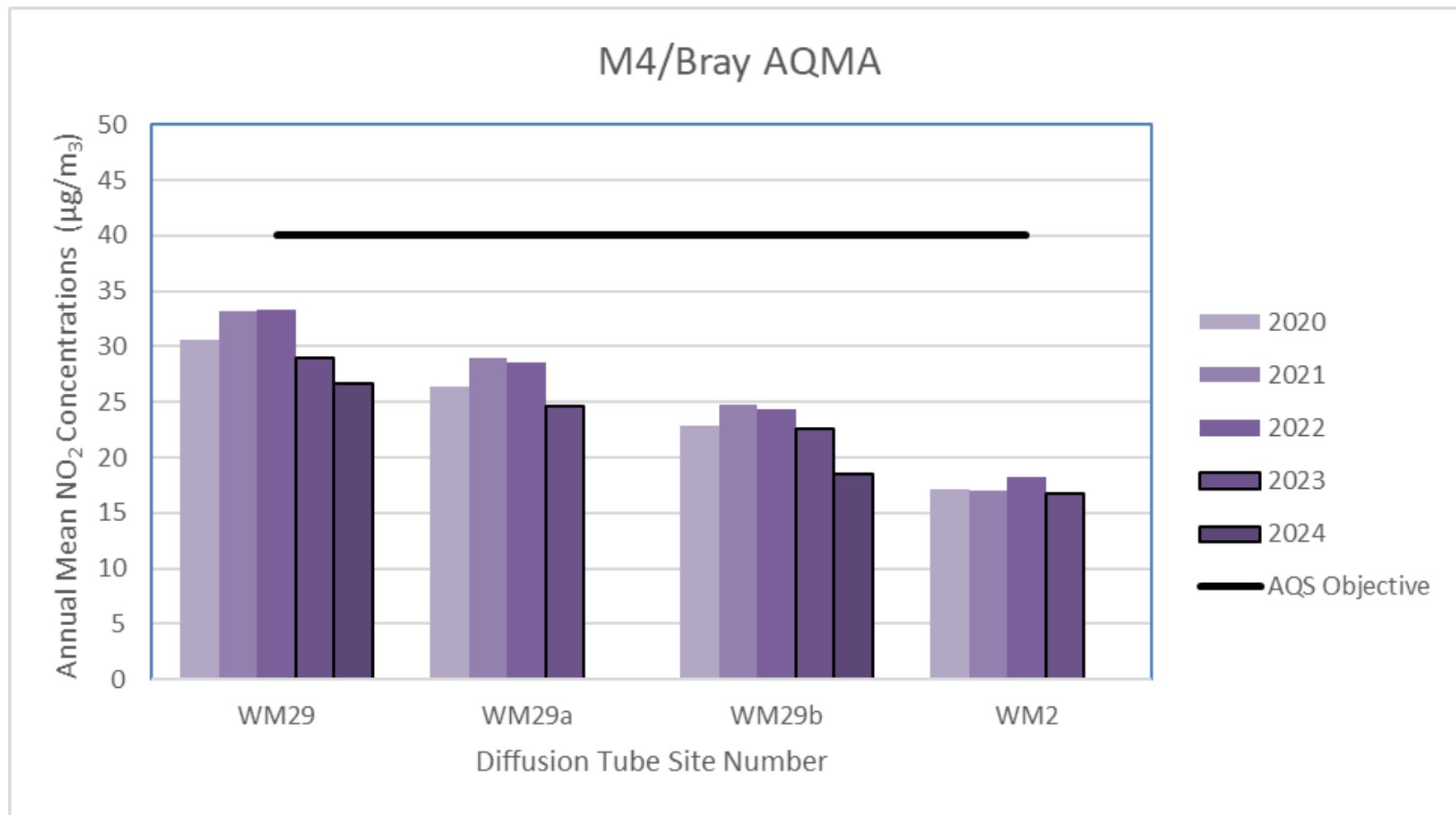


Figure A1.3 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Windsor AQMA between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

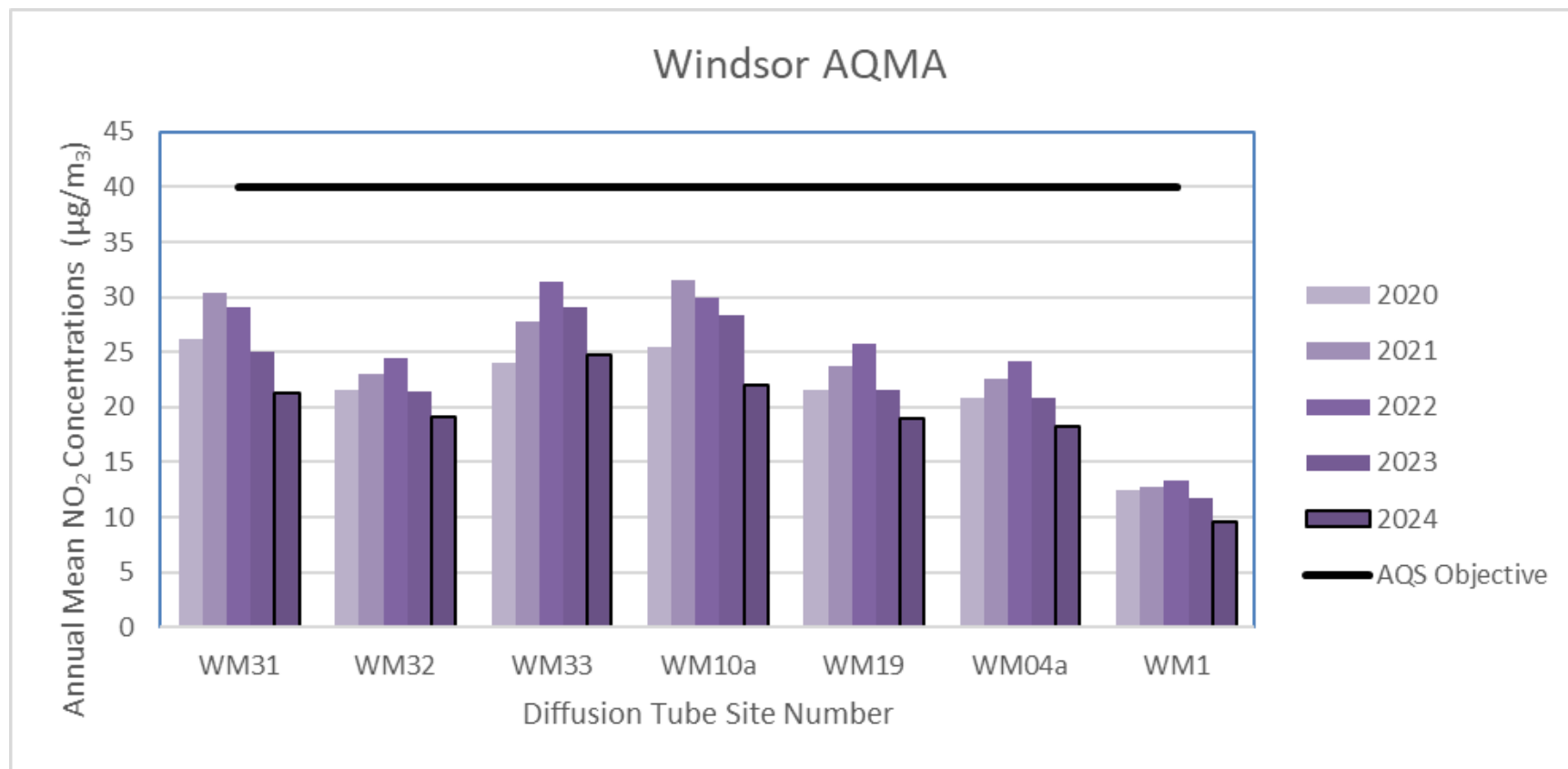


Figure A1.4 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Imperial/St Leonards Road Junction AQMA between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

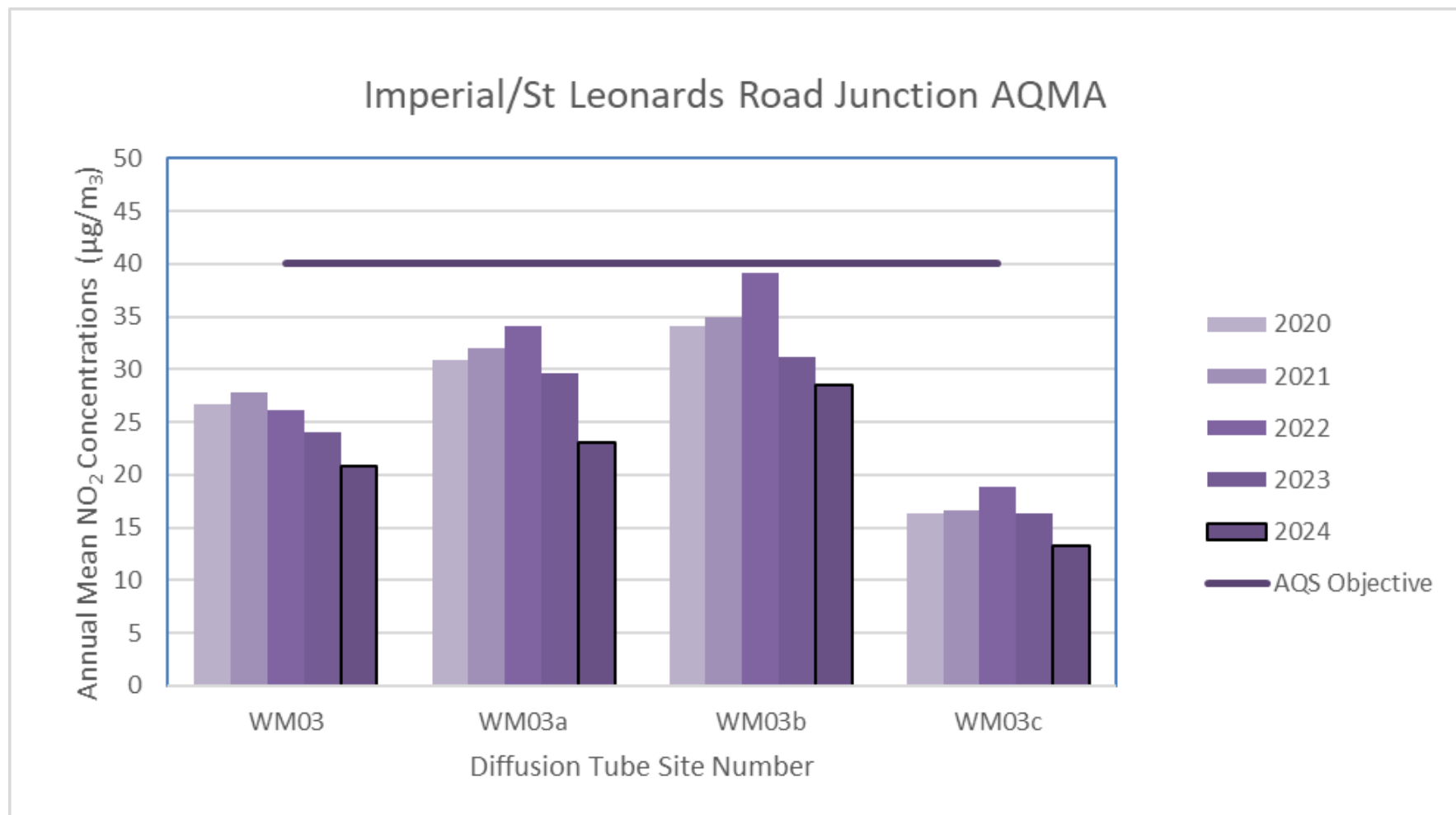


Figure A1.5 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Wraysbury Road AQMA between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

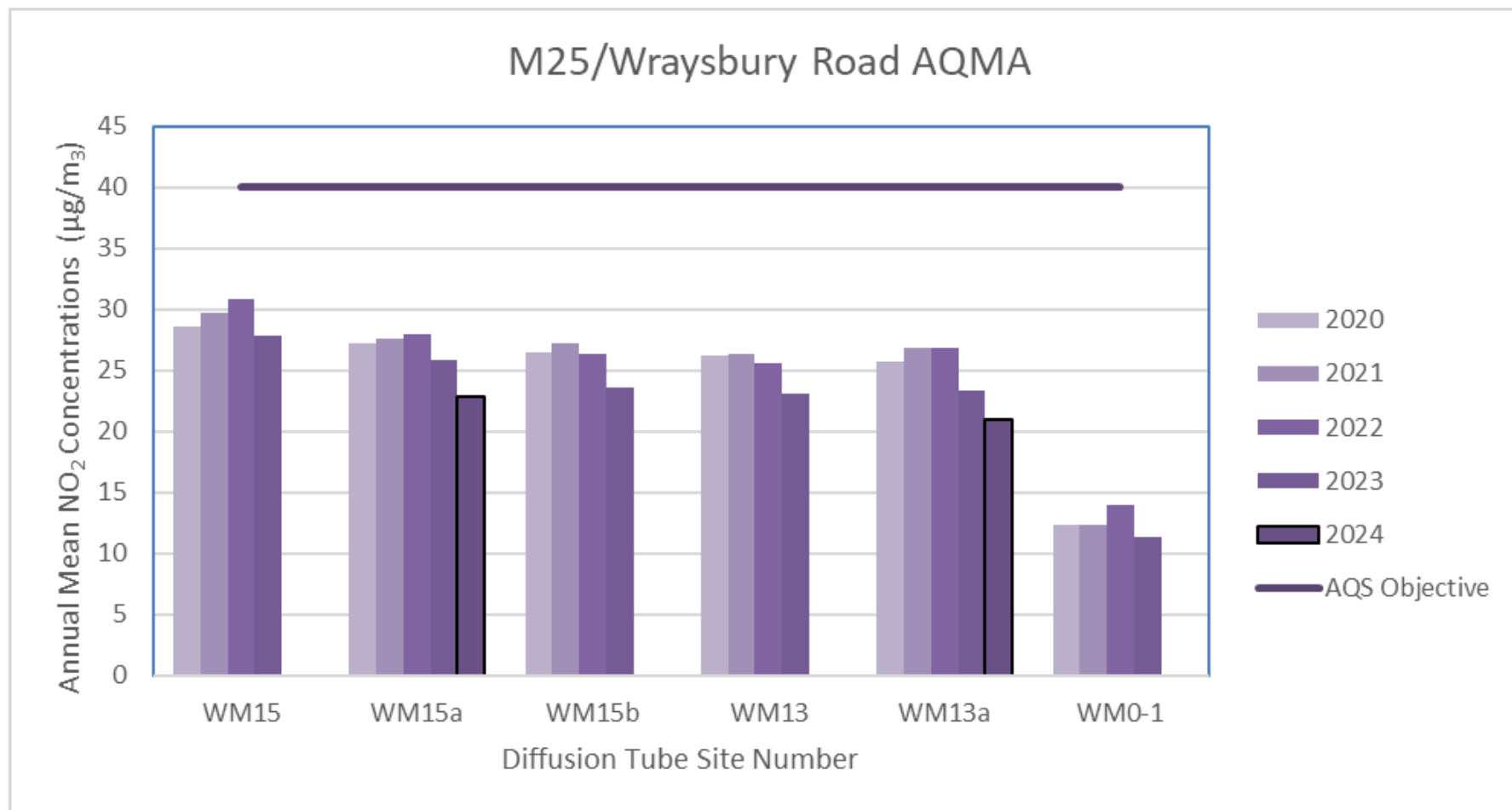


Figure A1.6 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Datchet between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

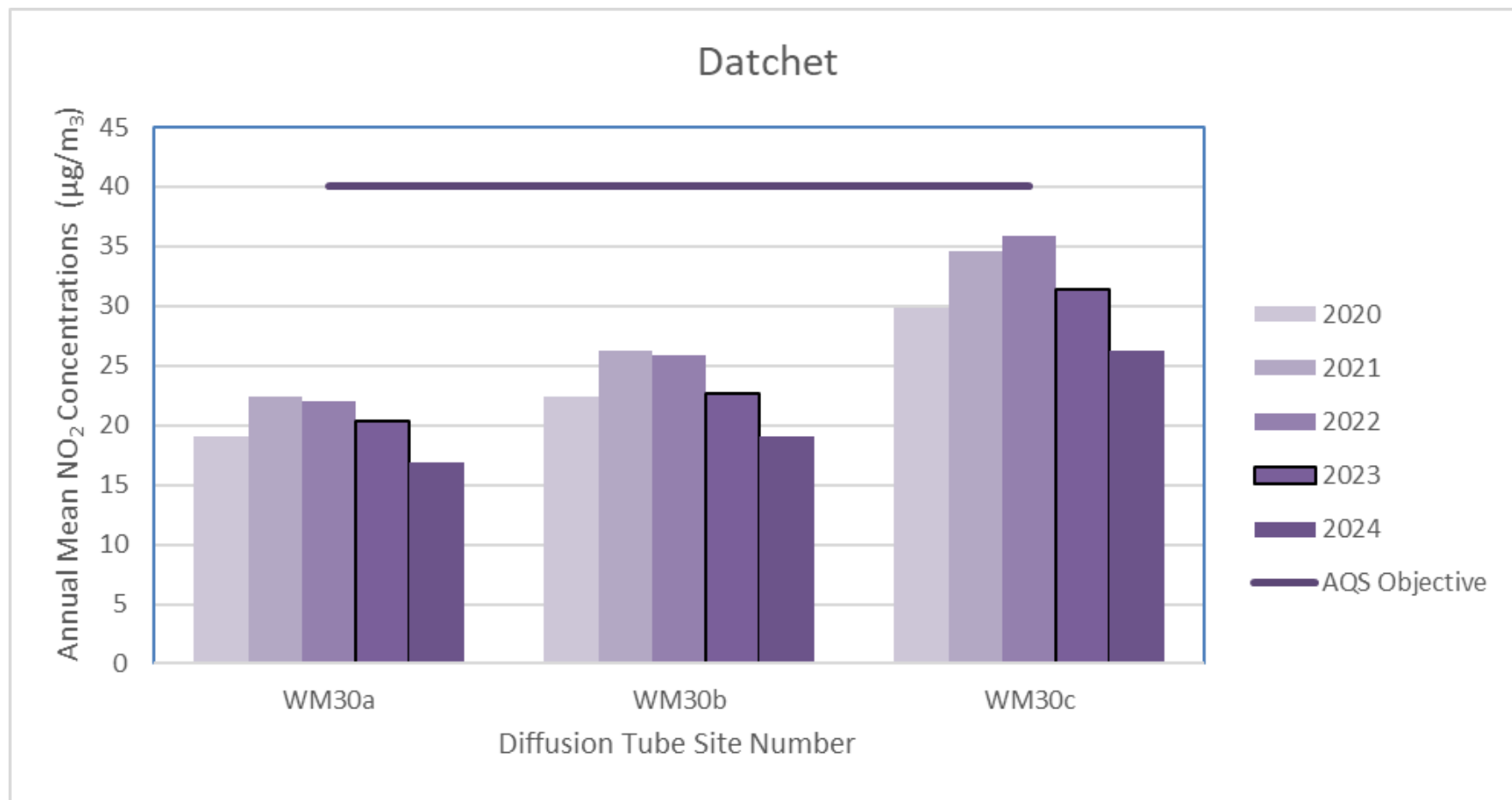


Figure A1.7 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Eton between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.

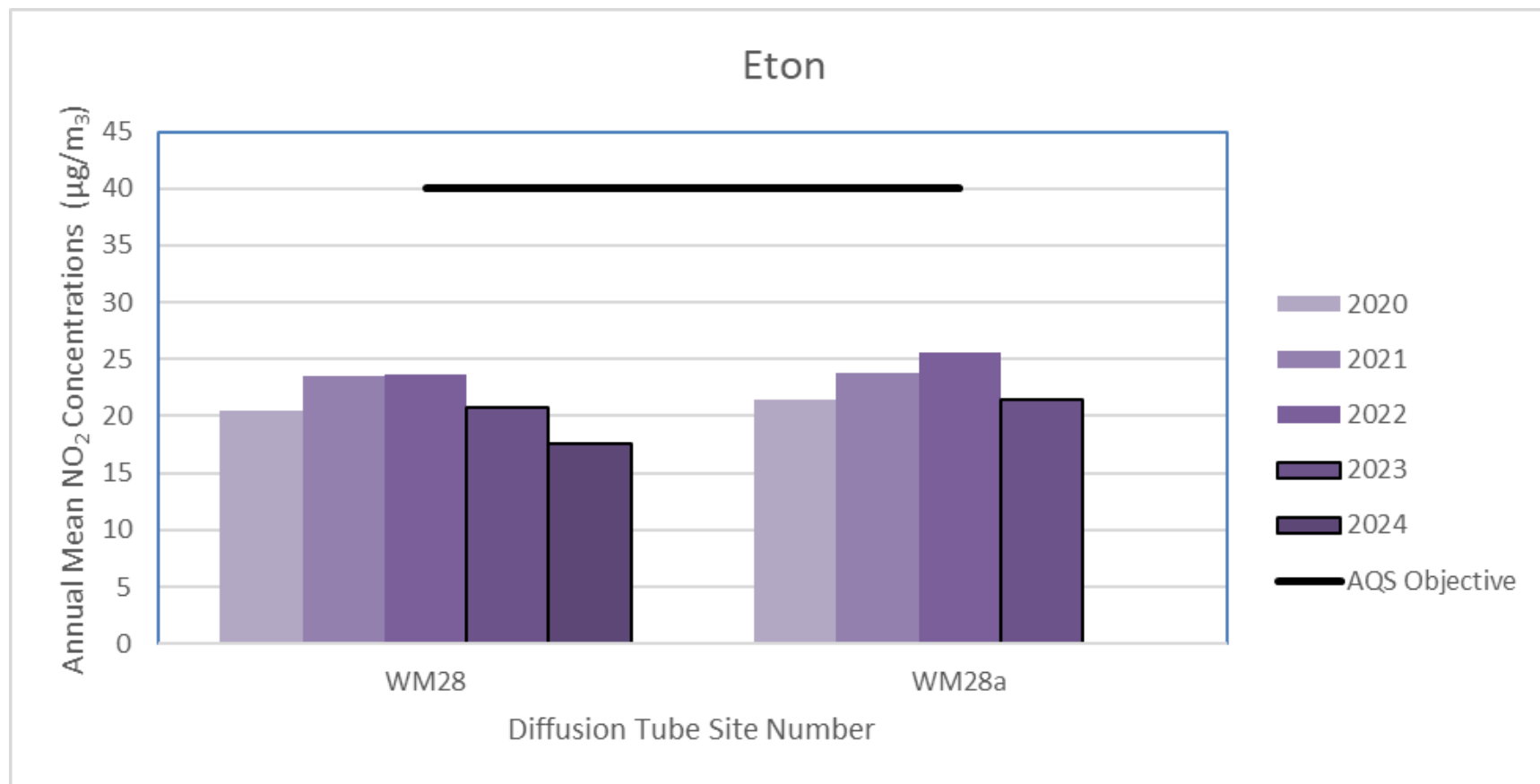
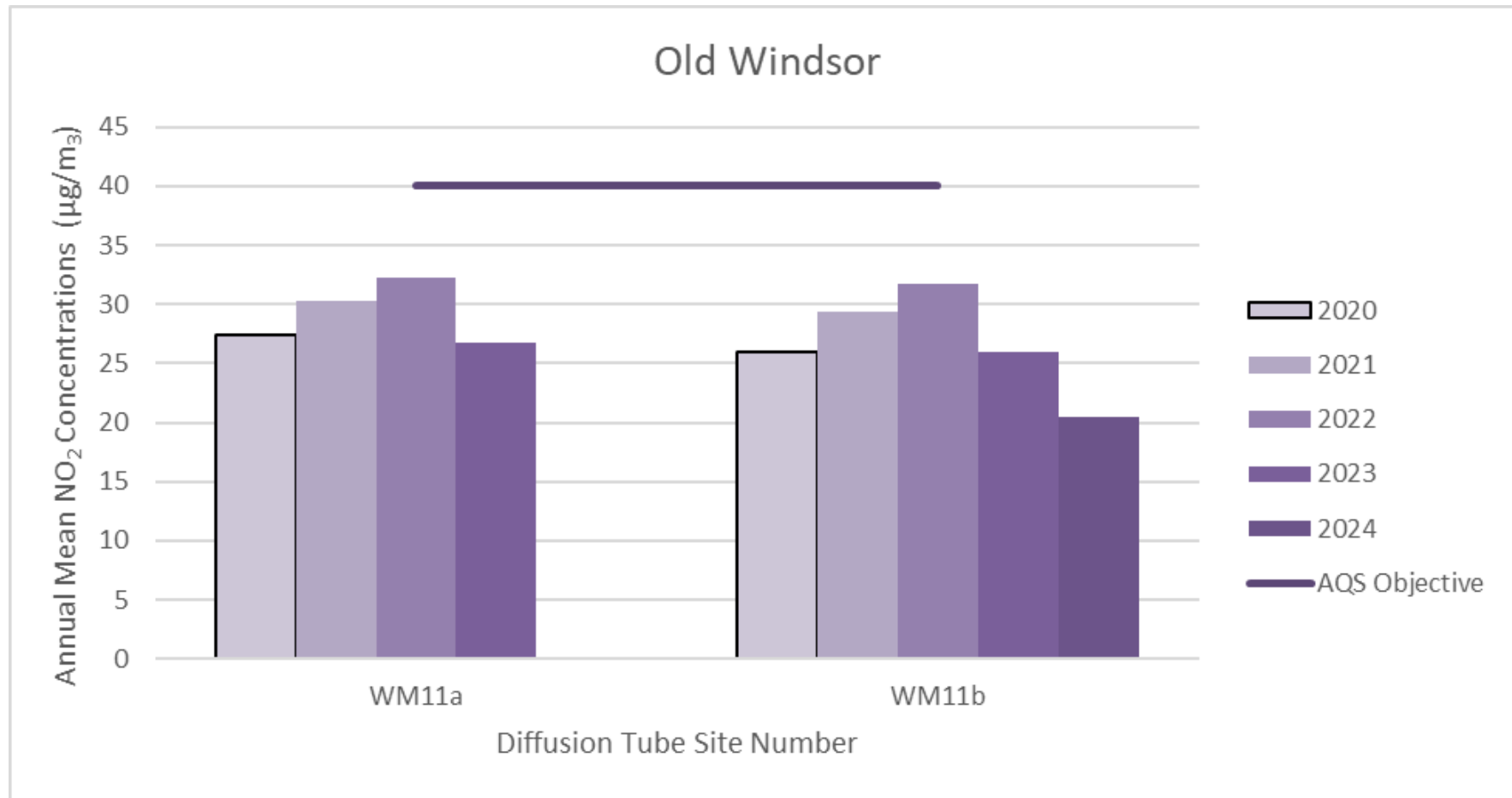


Figure A1.8 - NO<sub>2</sub> annual mean concentrations for diffusion tube sites in Old Windsor between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and considering the lower concentrations recorded during Covid-19 there is a general trend of reduction experienced across the sites.



**Table A.5 – 1-Hour Mean NO<sub>2</sub> Monitoring Results, Number of 1-Hour Means > 200µg/m<sup>3</sup>**

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MW1	488626	180994	Roadside	95.4	54.9	0	0	0	0	0 (75)

**Notes:**

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

Exceedances of the NO<sub>2</sub> 1-hour mean objective (200µg/m<sup>3</sup> not to be exceeded more than 18 times/year) are shown in **bold**.

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

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

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



**Table A.6 – Annual Mean PM<sub>10</sub> Monitoring Results (µg/m<sup>3</sup>)**

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MW1	488626	180994	Roadside	91.3	52.4	18.8	19.2	23	20.8	18.4
WM001	489651	181323	Roadside	86.5	69.5					11.6
WM002	502258	172322	Roadside	97.0	92.1					11.2
WM003	495664	176591	Roadside	99.9	80.1					9.8
WM004	495314	175551	Kerbside	99.8	99.8					10.0
WM005	489974	178721	Roadside	98.2	98.2					11.4

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

#### Notes:

The annual mean concentrations are presented as µg/m<sup>3</sup>.

Exceedances of the PM<sub>10</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

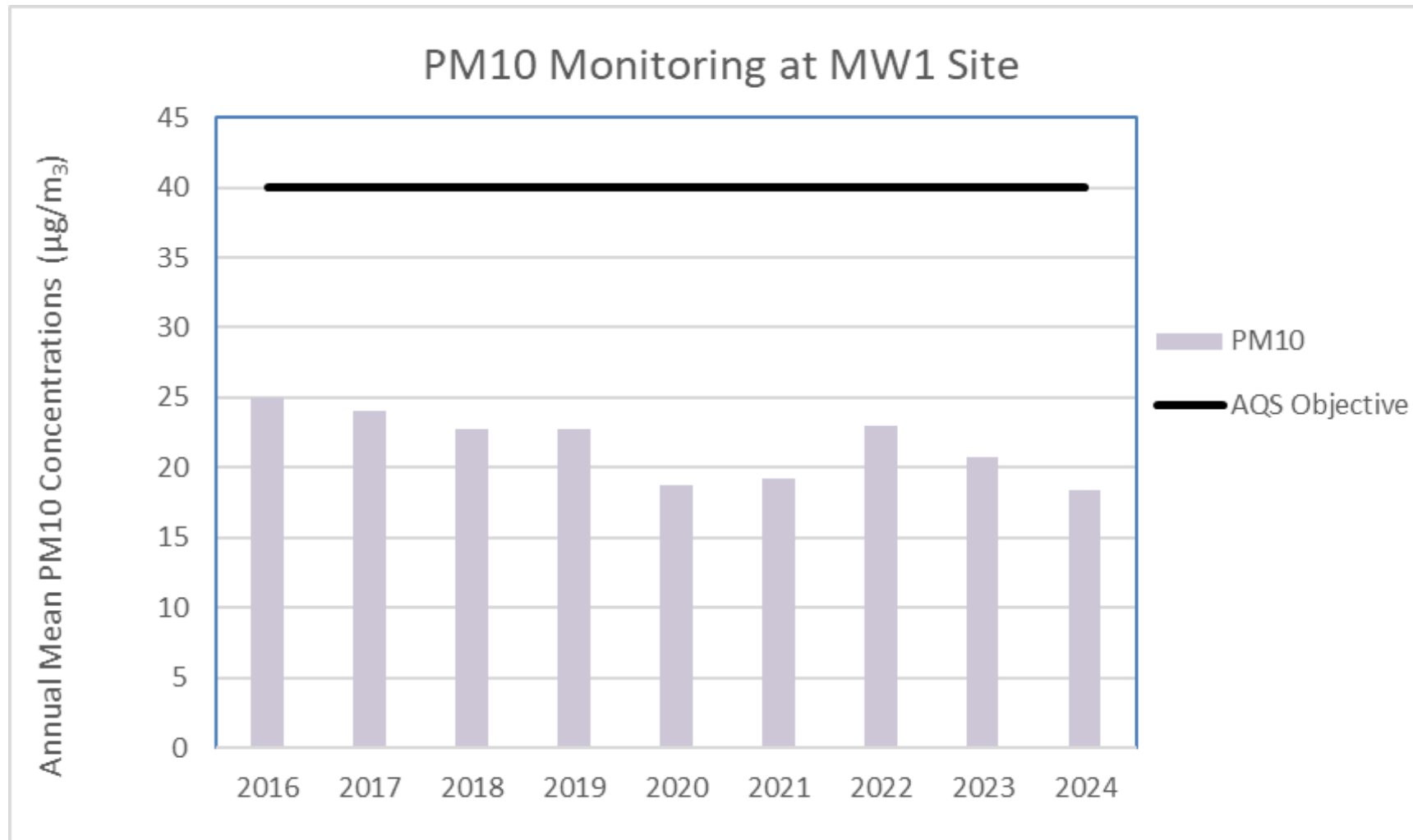
All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(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.2 – Trends in Annual Mean PM<sub>10</sub> Concentrations**

PM<sub>10</sub> annual mean concentrations in Maidenhead between years 2016 to 2024. There are no exceedances of the annual mean objective in 2024.



**Table A.7 – 24-Hour Mean PM<sub>10</sub> Monitoring Results, Number of PM<sub>10</sub> 24-Hour Means > 50µg/m<sup>3</sup>**

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
MW1	488626	180994	Roadside	91.3	52.4	3	2	6	7	0 (29)
WM001	489651	181323	Roadside	86.5	69.5					0 (20)
WM002	502258	172322	Roadside	97.0	92.1					0
WM003	495664	176591	Roadside	99.9	80.1					0 (18)
WM004	495314	175551	Kerbside	99.8	99.8					0
WM005	489974	178721	Roadside	98.2	98.2					0

**Notes:**

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

Exceedances of the PM<sub>10</sub> 24-hour mean objective (50µg/m<sup>3</sup> 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%).

**Table A.8 – Annual Mean PM<sub>2.5</sub> Monitoring Results (µg/m<sup>3</sup>)**

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) <sup>(1)</sup>	Valid Data Capture 2024 (%) <sup>(2)</sup>	2020	2021	2022	2023	2024
WM001	489651	181323	Roadside	86.5	69.5					7.3
WM002	502258	172322	Roadside	97.0	92.1					7.1
WM003	495664	176591	Roadside	99.9	80.1					7.3
WM004	495314	175551	Kerbside	99.8	99.8					6.4
WM005	489974	178721	Roadside	98.2	98.2					6.6

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

**Notes:**

The annual mean concentrations are presented as µg/m<sup>3</sup>.

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%).

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO<sub>2</sub> 2024 Diffusion Tube Results (µg/m<sup>3</sup>)

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
WM1	494067	176764	15.4	13.4	11.3	7.8	8.3	7.0	7.9	7.3	9.6	13.3	17.1	11.7	10.8	9.5	-	
WM5B	488864	180951	28.1	24.3	20.9	16.3	15.8	15.5	16.8	19.3	16.8	23.0	24.0	18.8	20.0	17.6	-	
WM10A	495606	176364	29.2	25.6		24.3	27.6	23.0	24.3		25.5		28.6	17.6	25.1	22.3	-	
WM11B	498388	174797			22.8	23.6	27.6	21.9	19.2	18.1	25.6	24.9	27.9	21.8	23.3	20.5	-	
WM13	502017	172541	30.4	23.6	25.3	17.9	23.2	18.7		21.4	25.9	27.5	28.1	20.0	23.8	21.0	-	
WM15	502259	172322	35.5	24.3	24.4	24.7	25.8	27.8	22.9	22.9	25.0	22.4	31.5	25.3	26.0	22.9	-	
WM19	495664	176592	26.8	24.6	23.6	17.5	21.1	17.0	19.7	20.3	20.0	25.4	26.0	18.1	21.7	19.1	-	
WM21	488626	180994	31.9	29.6	26.0	23.5	25.3	24.8	22.9	23.1	21.8	27.1	31.7	23.1	-	-	-	Triplicate Site with WM21, WM22 and WM23 - Annual data provided for WM23 only
WM22	488626	180994	27.7	28.0	27.2	19.9	23.1	23.5	23.1	21.7	20.1	26.9	31.0	22.7	-	-	-	Triplicate Site with WM21, WM22 and WM23 - Annual data provided for WM23 only
WM23	488626	180994	30.4	30.2	24.3	20.6	24.9	22.6	22.4	21.4	21.7	28.0	27.2	23.1	25.1	22.1	-	Triplicate Site with WM21, WM22 and WM23 - Annual data provided for WM23 only
WM28	496604	177866	27.3	19.5	20.2	17.2	20.7	17.8	17.3	14.5	22.0	19.0	25.4	19.0	20.0	17.6	-	
WM29	489975	178721	33.7	RM	29.7	22.6	31.2	28.6	30.3	30.9	29.3	35.1	35.9	24.6	30.2	26.6	-	
WM29B	490060	178593	32.0	21.3	21.8	20.3	21.6	18.9	18.7	15.6	25.3	15.4	21.9	19.2	21.0	18.5	-	
WM30A	498591	177065	26.2	21.7	23.0	17.3	19.3	13.1	15.2	15.9	17.7	21.1	20.8	18.6	19.2	16.9	-	
WM30B	498669	176976	27.0	20.0	22.7	17.7	22.4	20.0	18.9	19.3	19.8	22.5	28.8	20.6	21.6	19.0	-	
WM30C	498770	177077	37.3	29.1	28.4	27.9	31.0		23.8	25.2	32.6	32.2	36.9	24.1	29.9	26.3	-	
WM31	495896	176939	31.5	22.9	21.9	21.0	26.1	22.2	21.6	18.7	26.9	25.4	28.6	23.0	24.2	21.3	-	
WM32	496082	176903	28.1	26.8	23.3	18.1	19.5	18.5	20.2	20.9	16.9	24.9		21.7	21.7	19.1	-	

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
WM33	496312	176886	33.6	24.9	27.3	25.5	31.5	29.0	27.2	26.3	28.7	25.6	30.7		28.2	24.8	-	
WM03	495331	175569	29.3	16.7	24.7	22.4	24.7	22.8	20.2	22.6	24.1	25.1	28.7	22.0	23.6	20.8	-	
WM03A	495294	175556	34.4	24.3	27.7	25.9	29.1	22.5	24.7	25.3	27.4	27.7	29.3	16.3	26.2	23.1	-	
WM03B	495314	175551	35.8	33.3	34.2	29.6	35.1	32.9	33.0	31.4		29.9	33.1	28.4	32.4	28.5	-	
WM03C	495413	175587	18.7	14.8	16.3	14.2	16.0	12.3	12.3	13.4	13.4	16.2	18.6	14.3	15.0	13.2	-	
WM04A	496380	176035	26.3	21.8	23.8	17.4	20.2	17.6	19.8	15.9	21.0	25.0	22.7	16.7	20.7	18.2	-	
WM013A	489652	181323	34.9	32.9	30.1	25.1	27.2	22.8	28.9	29.5	23.7	29.9	28.5	22.7	28.0	24.7	-	

- ☒ All erroneous data has been removed from the NO<sub>2</sub> diffusion tube dataset presented in Table B.1.
- ☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.
- ☐ Local bias adjustment factor used.
- ☒ National bias adjustment factor used.
- ☐ Where applicable, data has been distance corrected for relevant exposure in the final column.
- ☒ Royal Borough of Windsor and Maidenhead confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

**Notes:**

Exceedances of the NO<sub>2</sub> annual mean objective of 40µg/m<sup>3</sup> are shown in **bold**.

NO<sub>2</sub> annual means exceeding 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

Table B.2 – Maximum NO<sub>2</sub> concentration within former AQMAs for the past five years (µg/m<sup>3</sup>)

AQMA Name (status)	Sites	Is air quality in the AQMA influenced by roads controlled by Highways England?	Maximum monitored concentration (µg/m <sup>3</sup> ). (*) fall-off with distance adjusted values				
			2020	2021	2022	2023	2024
Imperial/St Leonards Road Junction, Windsor (Revoked)	WM03B	NO	33.9	34.9	32.1*	31.1	28.5
Windsor (Revoked)	WM31, WM33	NO	26.1	30.4	31.4	28.9	24.8

AQMA Name (status)	Sites	Is air quality in the AQMA influenced by roads controlled by Highways England?	Maximum monitored concentration (µg/m³). (*) fall-off with distance adjusted values				
			2020	2021	2022	2023	2024
Maidenhead (Revoked)	WM013A	NO	30.5	28.2	31.9	29	24.7
Bray/M4 (Revoked)	WM29	Yes	30.4	33.2	33.3	28.9	26.6
Wraysbury/M25 (Revoked)	WM15	Yes	28.5	29.8	30.8	27.7	22.9

Notes:

(\*) Where applicable, data has been distance corrected for relevant exposure.

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

## New or Changed Sources Identified Within Royal Borough of Windsor and Maidenhead During 2024

The Royal Borough of Windsor and Maidenhead has not identified any new sources relating to air quality within the reporting year of 2024.

## Additional Air Quality Works Undertaken by Royal Borough of Windsor and Maidenhead During 2024

The Royal Borough of Windsor and Maidenhead has not completed any additional works within the reporting year of 2024.

## QA/QC of Diffusion Tube Monitoring

Diffusion Tubes are supplied by Gradko International Ltd. The preparation method is TEA 50% acetone. Nitrogen dioxide is determined by U.V. Spectrophotometry.

The Laboratory Performance in AIR NO2 Proficiency Testing Scheme rounds AR050 to AR063 (May 2022 – June 2024) show a percentage of results submitted with satisfactory score of 100%.

[Laboratory Performance in AIR NO2 Proficiency Testing Scheme \(defra.gov.uk\)](https://defra.gov.uk)

The monitoring has been completed in adherence with Defra 2024 Diffusion Tube Monitoring Calendar.

## Diffusion Tube Annualisation

Table C.1 – Annualisation Summary (concentrations presented in µg/m³)

Site ID	Annualisati on Factor <Site 1 Name>	Annualisati on Factor <Site 2 Name>	Annualisati on Factor <Site 3 Name>	Annualisati on Factor <Site 4 Name>	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean
WM10 A	1.0302	0.9913			1.0108	25.1	25.3



## 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<sub>x</sub>/NO<sub>2</sub> continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

The Royal Borough of Windsor and Maidenhead have applied a national bias adjustment factor of 0.88 to the 2024 monitoring data. The automatic monitoring site MW1 used in previous years to determine a local bias factor recorded low data capture rate in 2024 and it was considered not suitable for bias factor study. A summary of bias adjustment factors used by the Royal Borough of Windsor and Maidenhead over the past five years is presented in Table C.2.

**Table C.2 – Bias Adjustment Factor**

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	03/25	0.88
2023	Local	-	0.9
2022	Local	-	0.94
2021	Local	-	0.92
2020	Local	-	0.87

## NO<sub>2</sub> Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO<sub>2</sub> concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO<sub>2</sub> fall-off with distance calculator available on the LAQM Support website. No diffusion tube NO<sub>2</sub> monitoring locations within the Royal Borough of Windsor and Maidenhead required distance correction during 2024.

## QA/QC of Automatic Monitoring

During 2024 Automatic Monitoring site MW1 (Frascati Way) and Sensors sites WM001 to WM005 have been part of the Air Quality in England (AQE) network which is operated and managed by Ricardo. Ricardo Monitoring Services was responsible for data management and ratification process. QA/QC audits for the MW1 site were completed by the National Physical Laboratory (NPL). Data have traceability to national standards and operational procedures defined for LAQN. The 2024 NO<sub>2</sub> monitoring data is fully ratified.

## PM<sub>10</sub> and PM<sub>2.5</sub> Monitoring Adjustment

The type of PM<sub>10</sub> and PM<sub>2.5</sub> monitors utilised within the Royal Borough of Windsor and Maidenhead do not require the application of a correction factor.

## Automatic Monitoring Annualisation

Automatic monitoring sites, MW1 monitoring NO<sub>2</sub> and PM<sub>10</sub> and WM001 monitoring PM<sub>10</sub> and PM<sub>2.5</sub> located in Maidenhead recorded data capture less than 75% therefore the data has been annualised.

The annualisation data is presented in Table C.5, Table C.6 and Table C.7.

**Table C.3 – Automatic NO<sub>2</sub> Annualisation Summary (concentrations presented in µg/m<sup>3</sup>)**

Background Site	Annual Data Capture (%)	Annual Mean (A <sub>m</sub> )	MW1	
			Period Mean (P <sub>m</sub> )	Ratio (A <sub>m</sub> / P <sub>m</sub> )
London Hillingdon	99.1	23.5	22.9	1.025
Reading New Town	99.1	10.5	9.9	1.058
Average (R <sub>a</sub> )			1.042	
Raw Data Annual Mean (M)			22.1	
Annualised Annual Mean (M x R <sub>a</sub> )			23.1	

**Table C.4 – Automatic PM<sub>10</sub> Annualisation Summary (concentrations presented in µg/m<sup>3</sup>)**

Background Site	Annual Data Capture (%)	Annual Mean (A <sub>m</sub> )	MW1		WM001	
			Period Mean (P <sub>m</sub> )	Ratio (A <sub>m</sub> / P <sub>m</sub> )	Period Mean (P <sub>m</sub> )	Ratio (A <sub>m</sub> / P <sub>m</sub> )
London Hillingdon	99.7	12.9	12.2	1.059	12.4	1.042
Reading New Town	99.9	10.5	9.5	1.098	10.1	1.032
Average (R <sub>a</sub> )			1.079		1.037	
Raw Data Annual Mean (M)			17.0		11.2	
Annualised Annual Mean (M x R <sub>a</sub> )			18.4		11.6	

**Table C.5 – Automatic PM<sub>2.5</sub> Annualisation Summary (concentrations presented in µg/m<sup>3</sup>)**

Background Site	Annual Data Capture (%)	Annual Mean (A <sub>m</sub> )	WM001	
			Period Mean (P <sub>m</sub> )	Ratio (A <sub>m</sub> / P <sub>m</sub> )
London Hillingdon	99.7	7.3	6.9	1.060
Reading New Town	99.9	6.7	6.3	1.057
Average (R <sub>a</sub> )			1.059	
Raw Data Annual Mean (M)			6.9	
Annualised Annual Mean (M x R <sub>a</sub> )			7.3	

### NO<sub>2</sub> Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO<sub>2</sub> concentration at the nearest location relevant for exposure has been estimated using the NO<sub>2</sub> fall-off with distance calculator available on the LAQM Support website. No automatic NO<sub>2</sub> monitoring locations within the Royal Borough of Windsor and Maidenhead recorded required distance correction during 2024.

## Appendix D: Maps of Monitoring Locations

Figure D.1 – Monitoring Locations - Clarence Road and Imperial Road

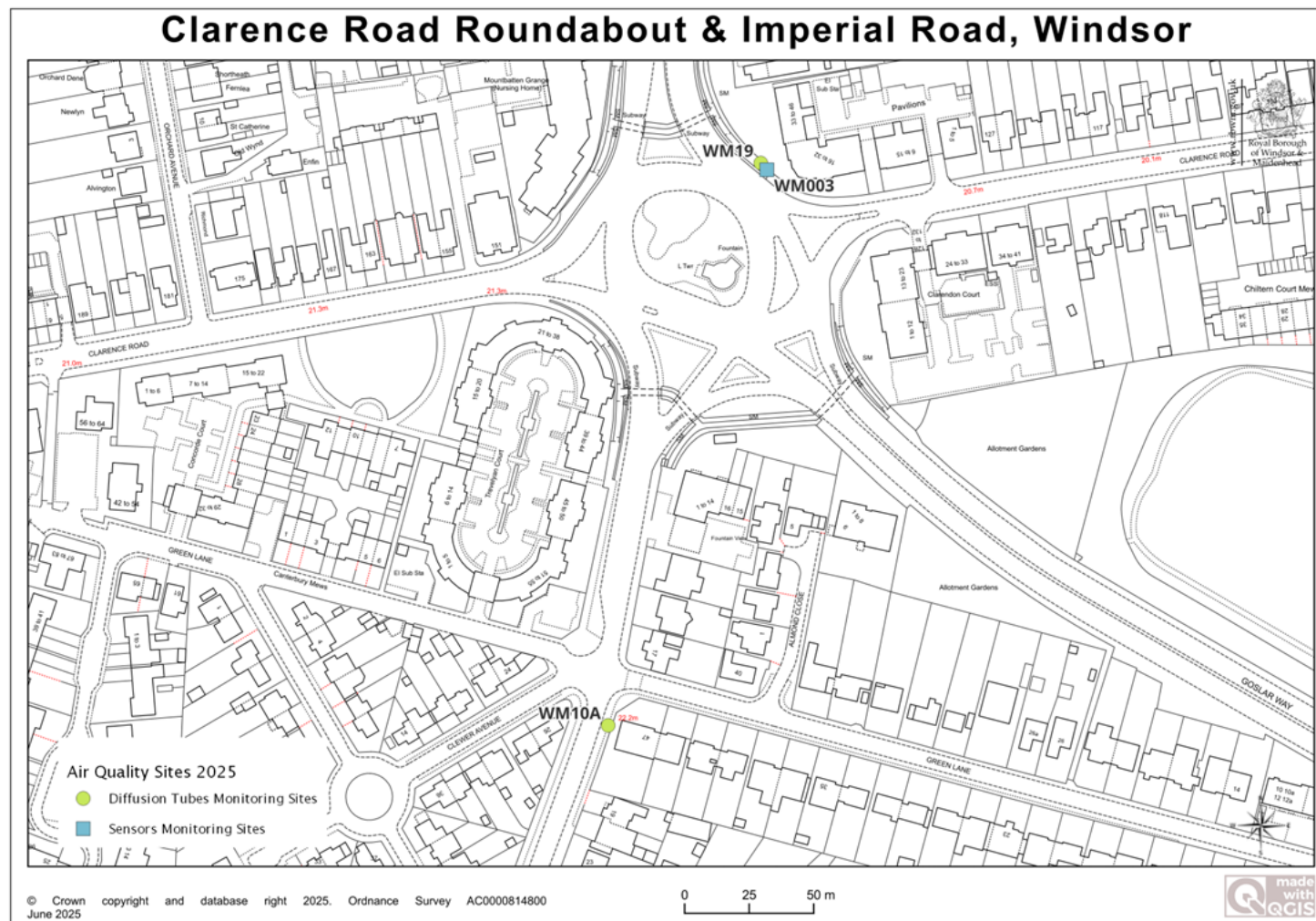


Figure D.2 – Monitoring Locations – St Leonards Road

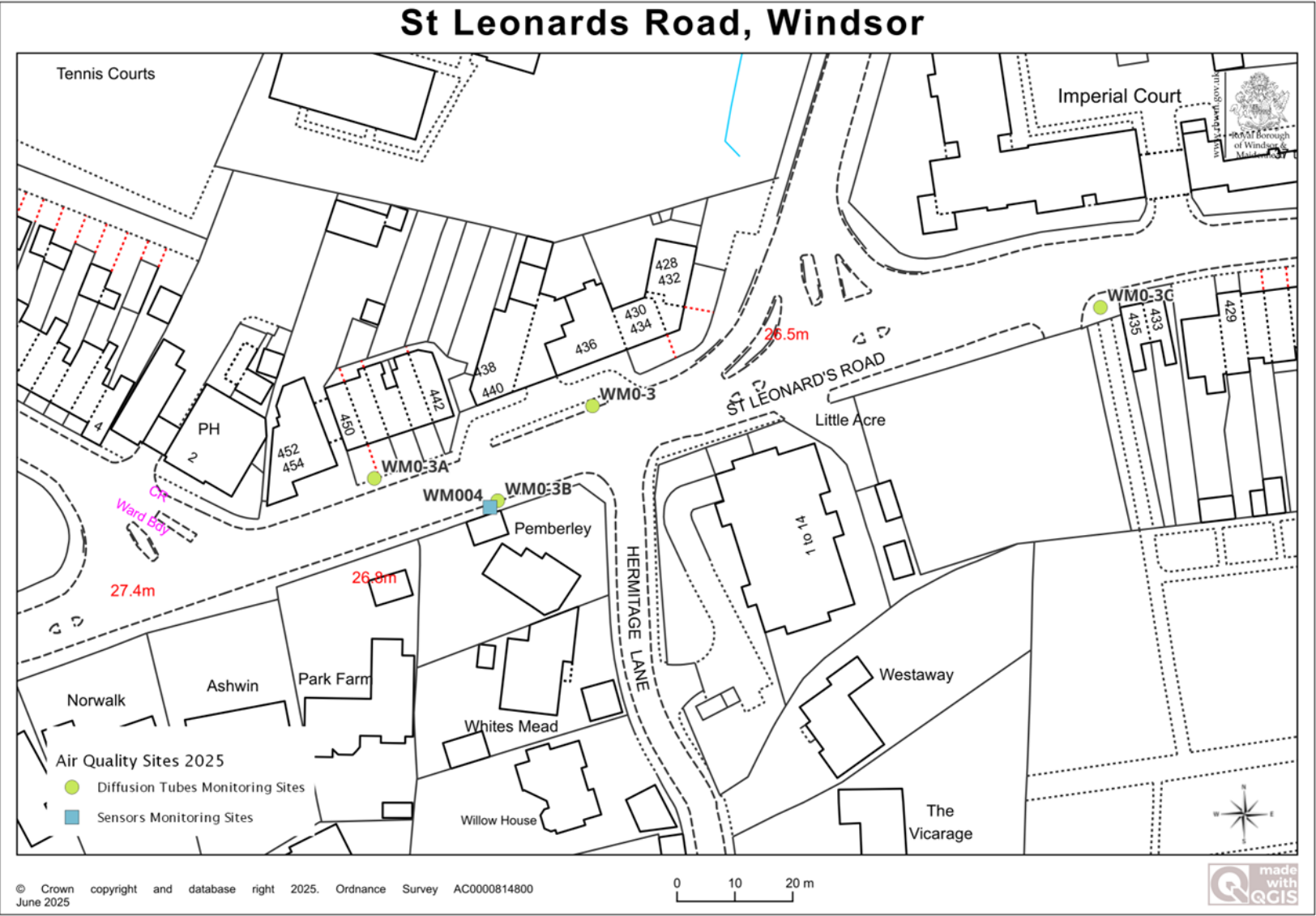




Figure D.3 – Monitoring Locations – Arthur Road

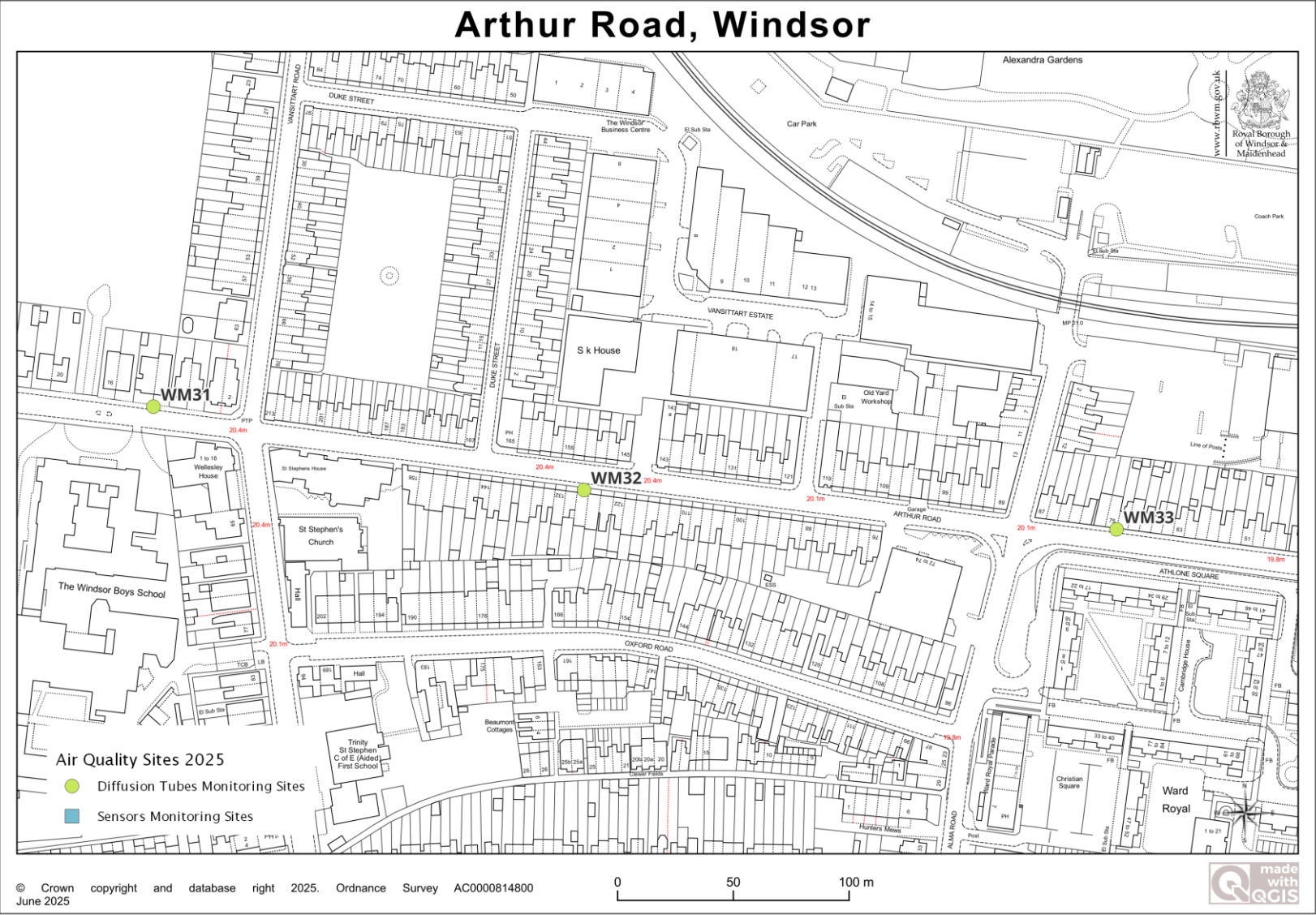


Figure D.4 – Monitoring Location – St Leonards Road WM04

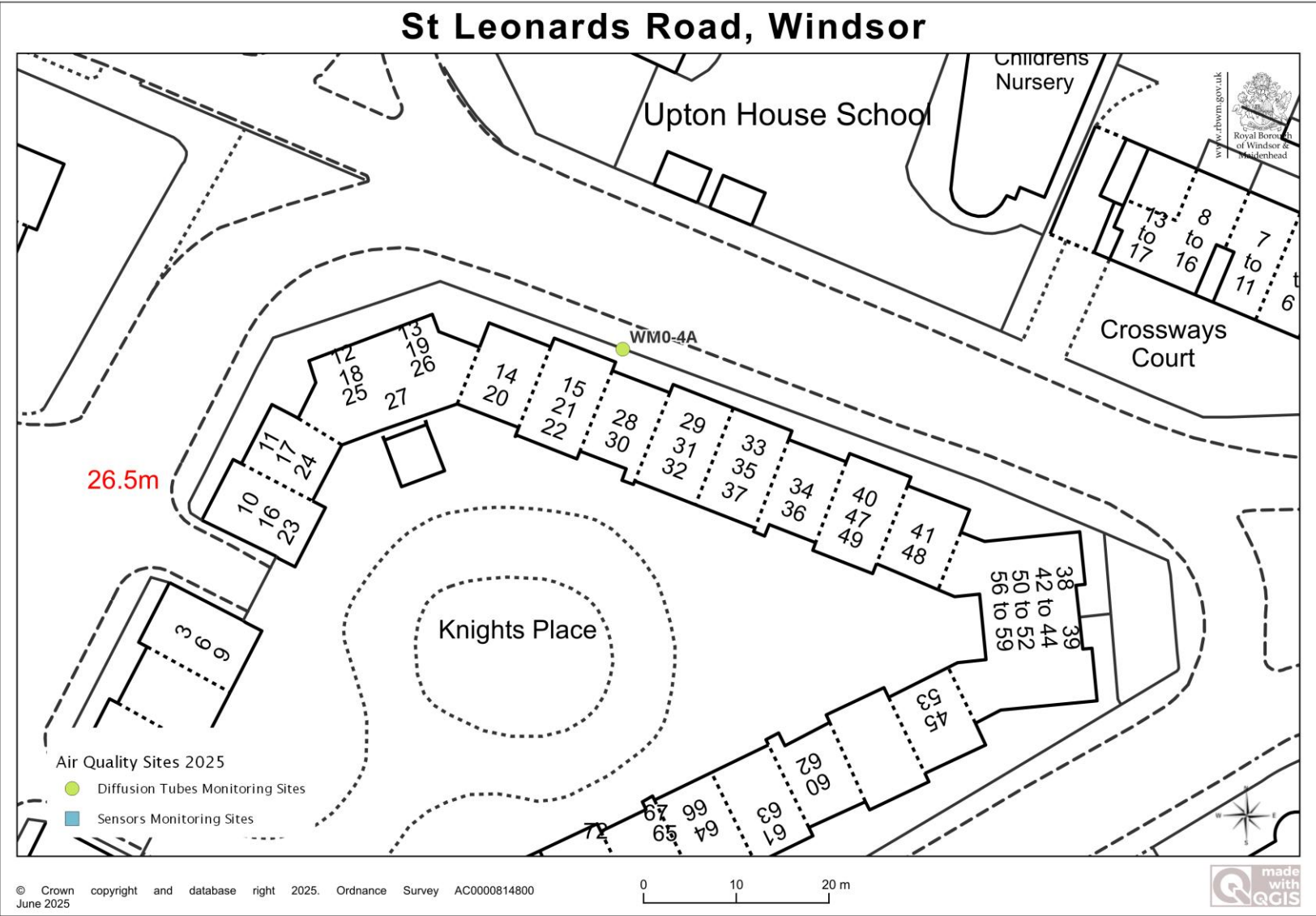


Figure D.5 – Monitoring Location – Longmead

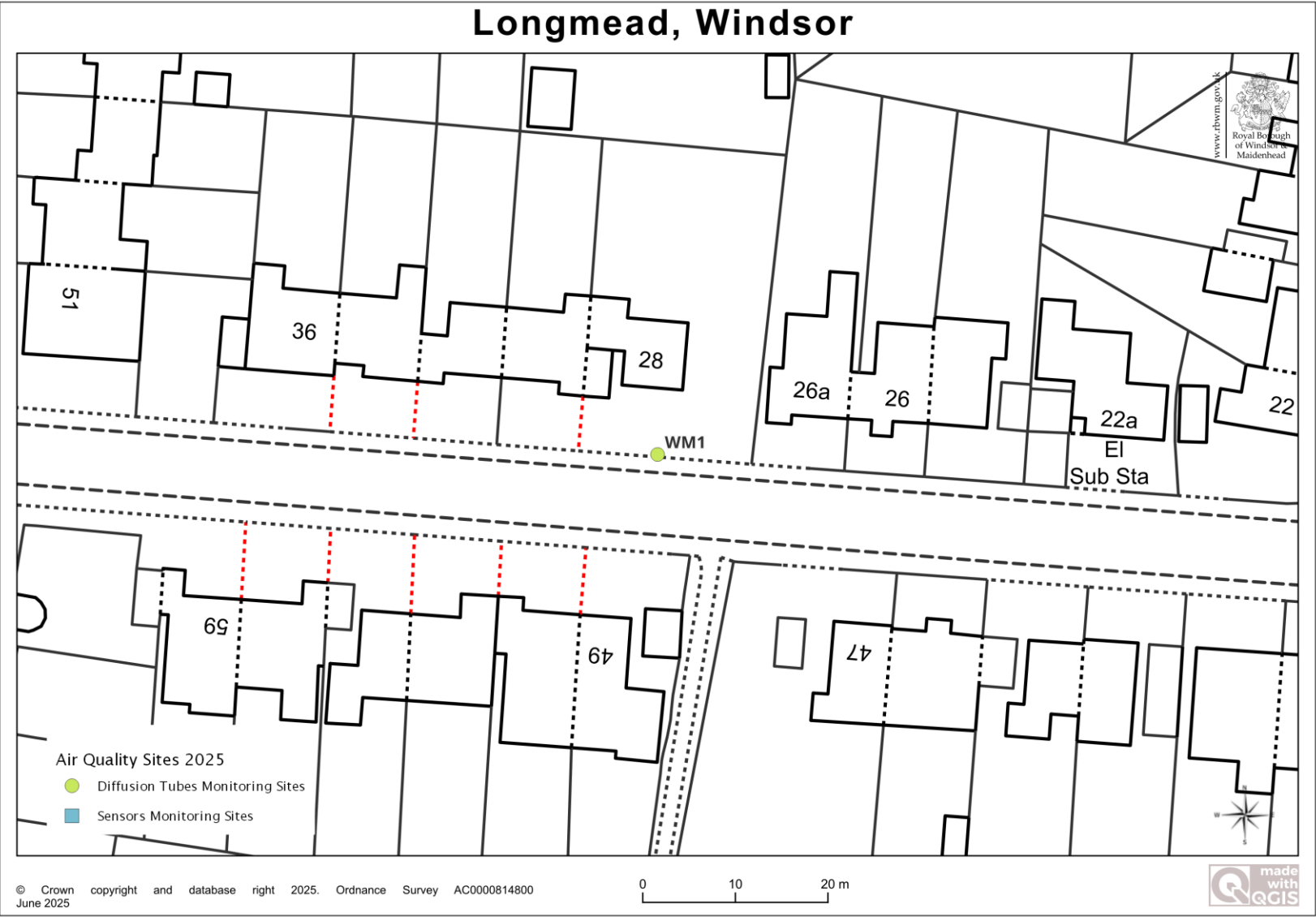




Figure D.6 – Monitoring Locations – Bridge Road

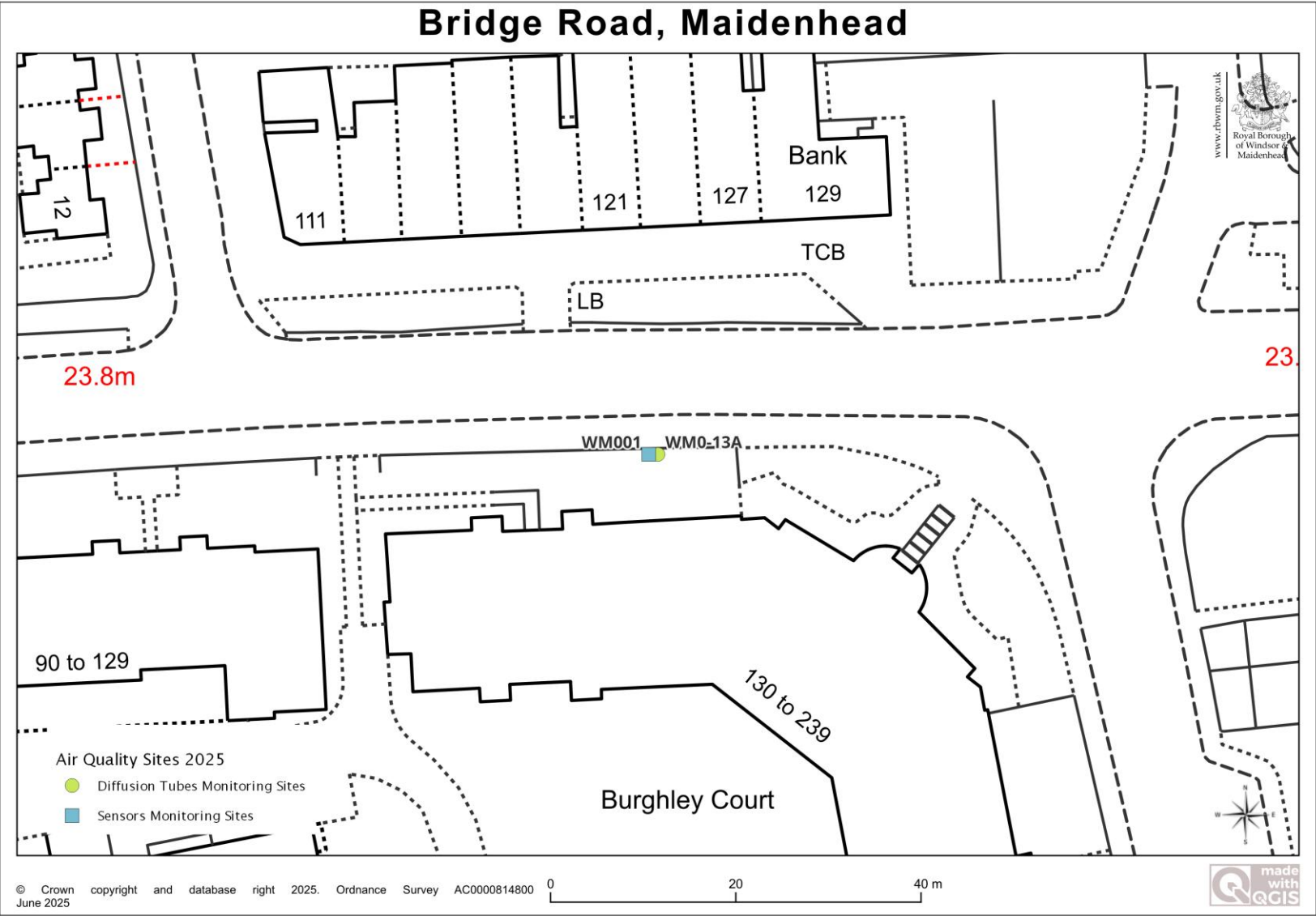


Figure D.7 – Monitoring Locations – Frascati Way

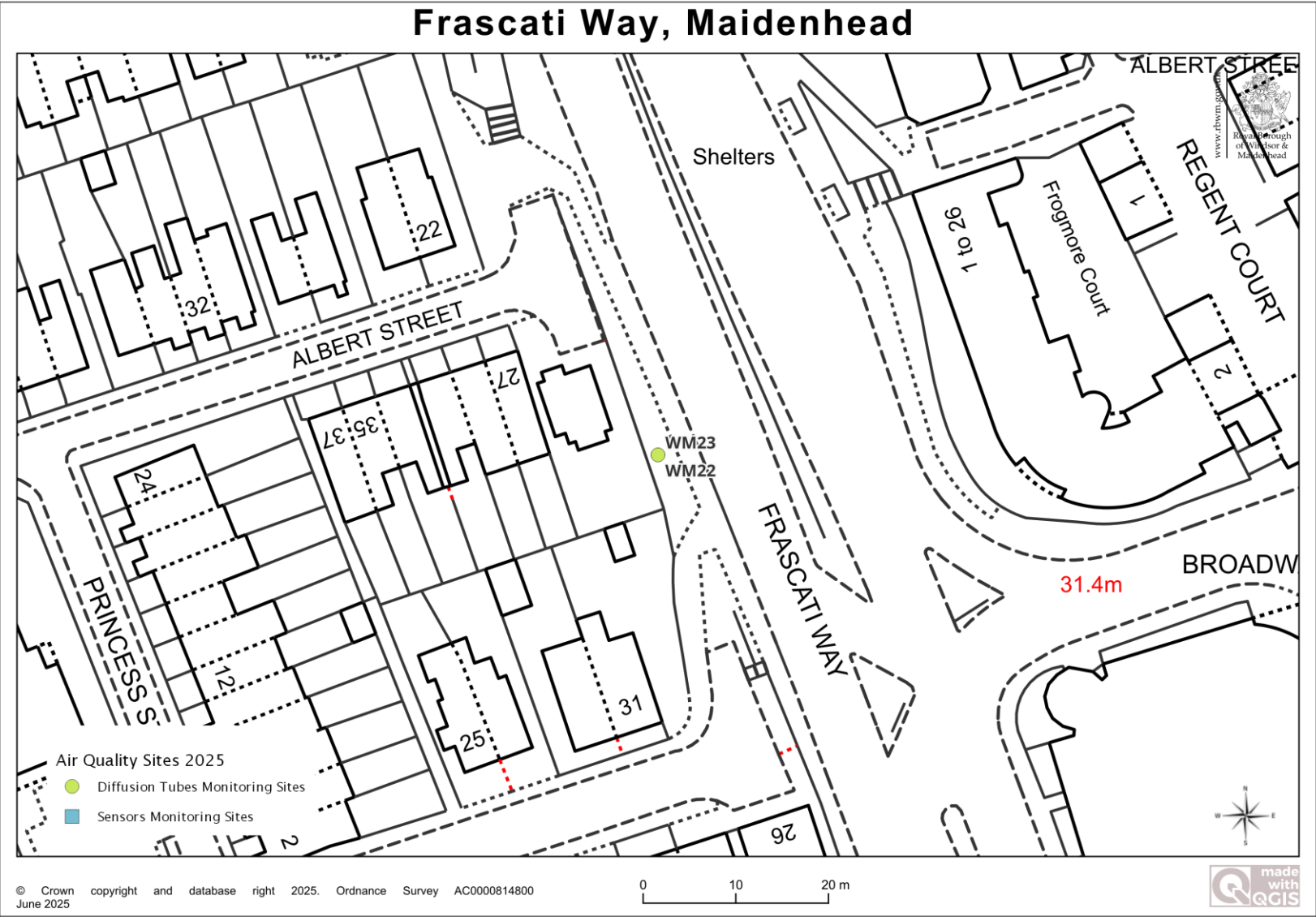


Figure D.8 – Monitoring Location – Queen Street

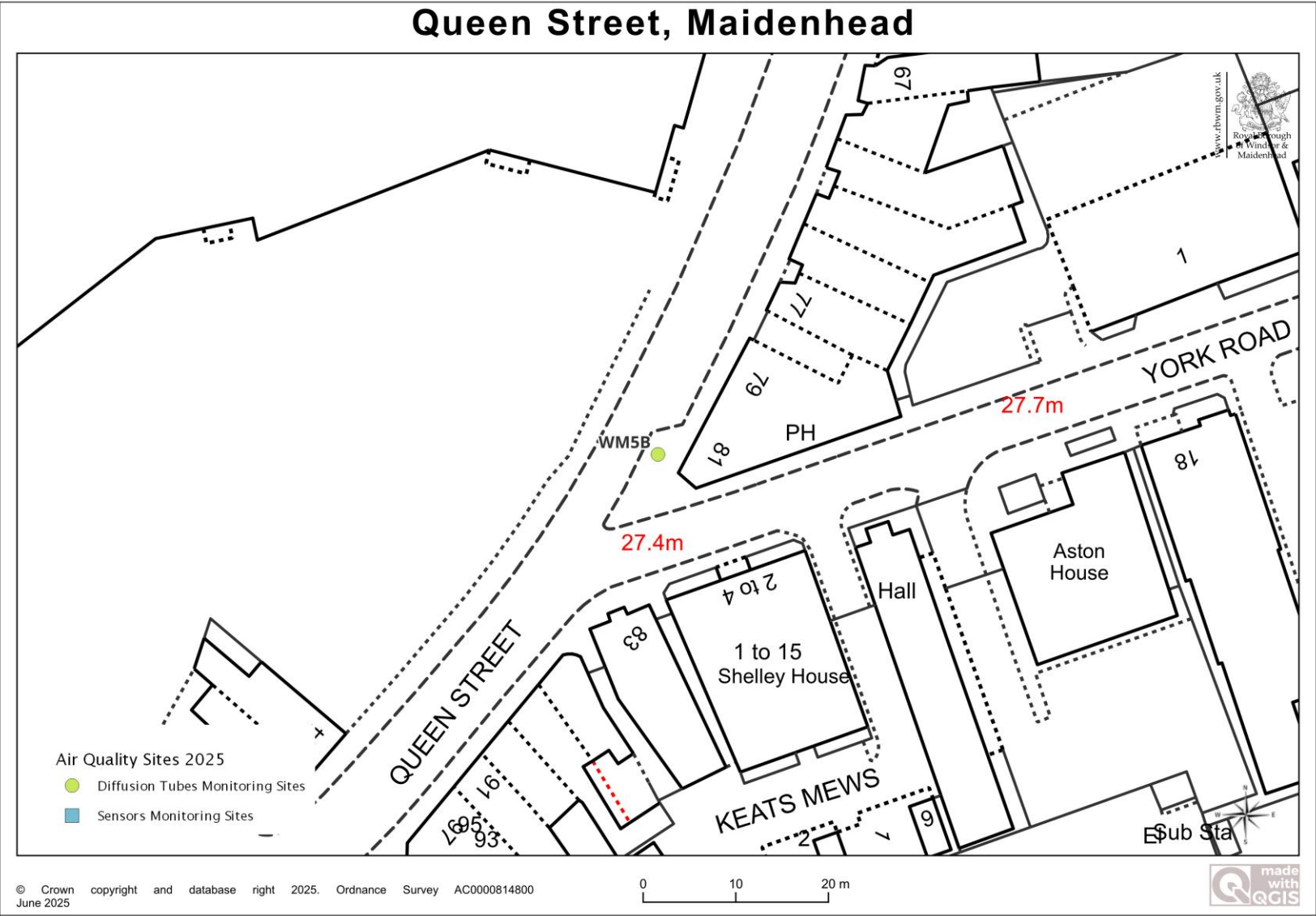


Figure D.9 – Monitoring Locations – Windsor Road, Bray M4

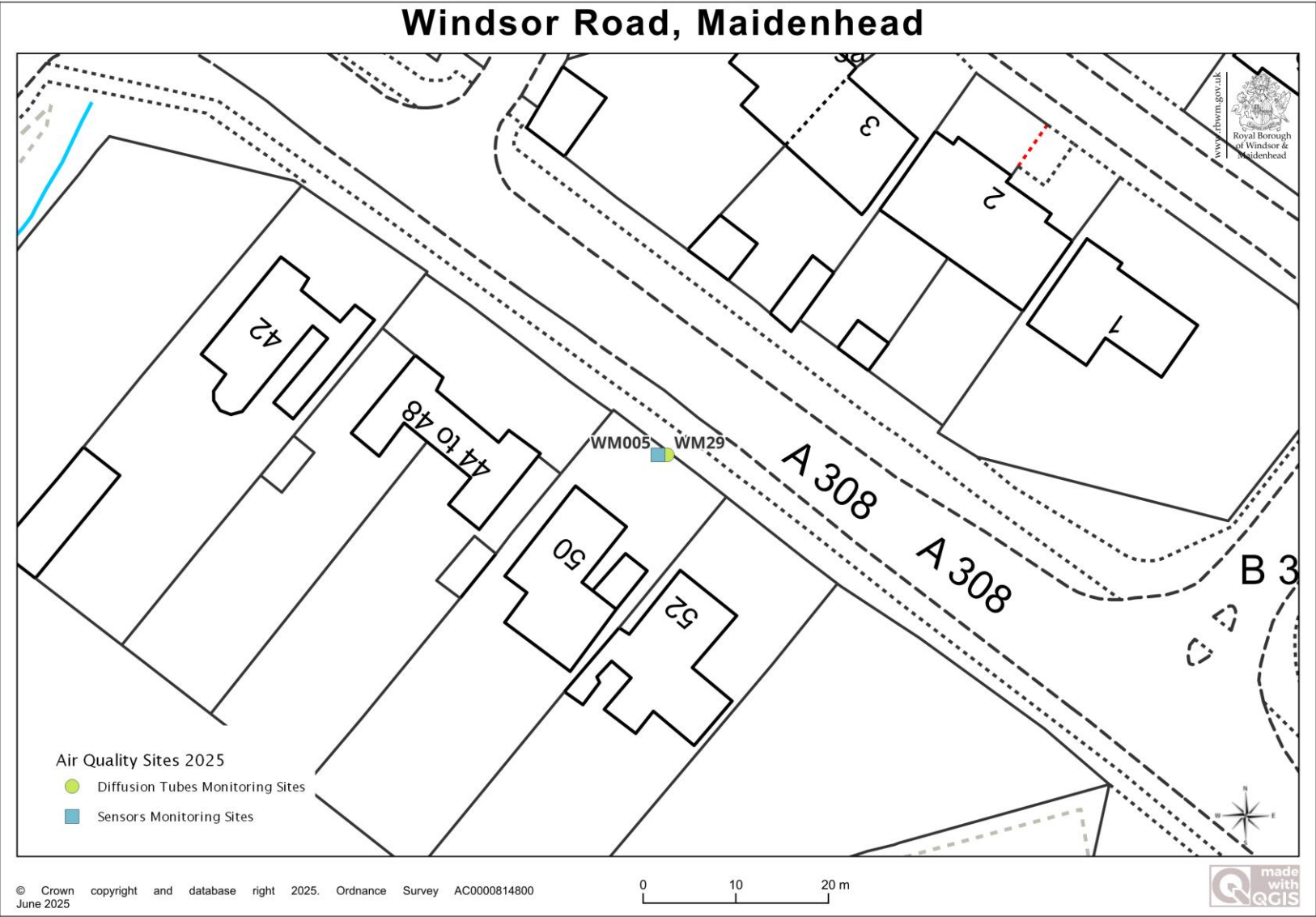




Figure D.10 – Monitoring Location – Holyport Road, Bray M4

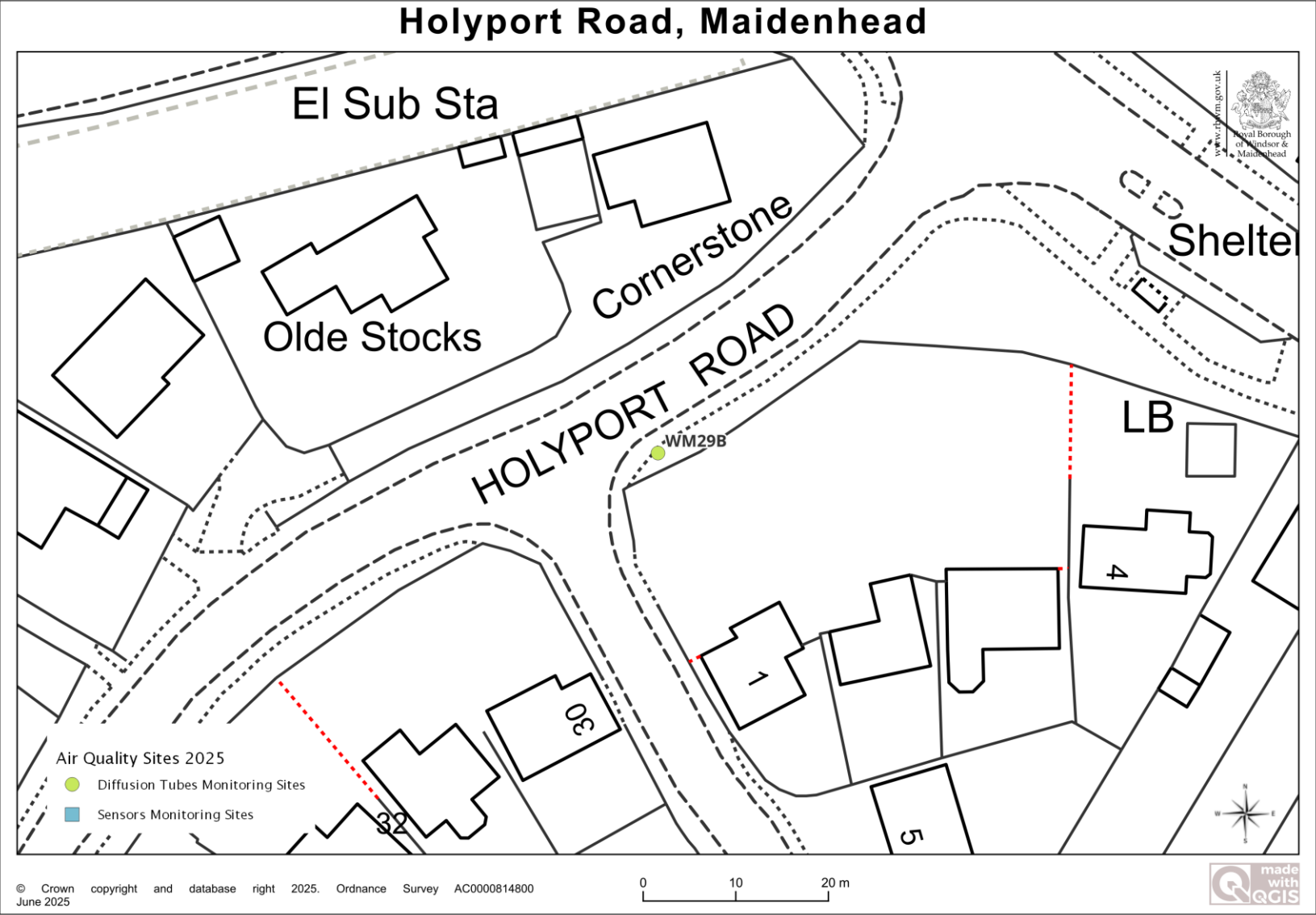


Figure D.11 – Monitoring Locations – Wraysbury Road M25

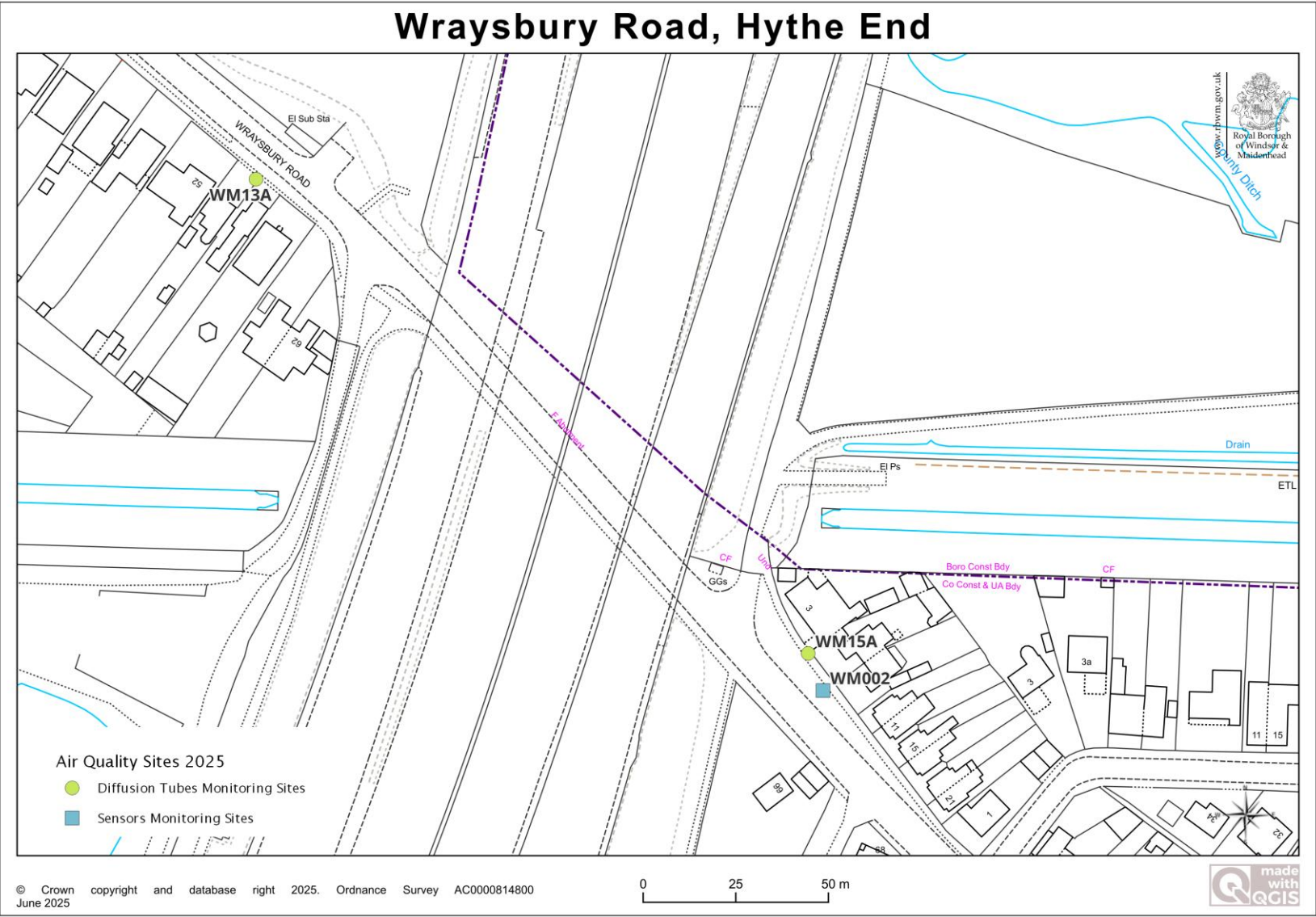


Figure D.12 – Monitoring Locations - Datchet

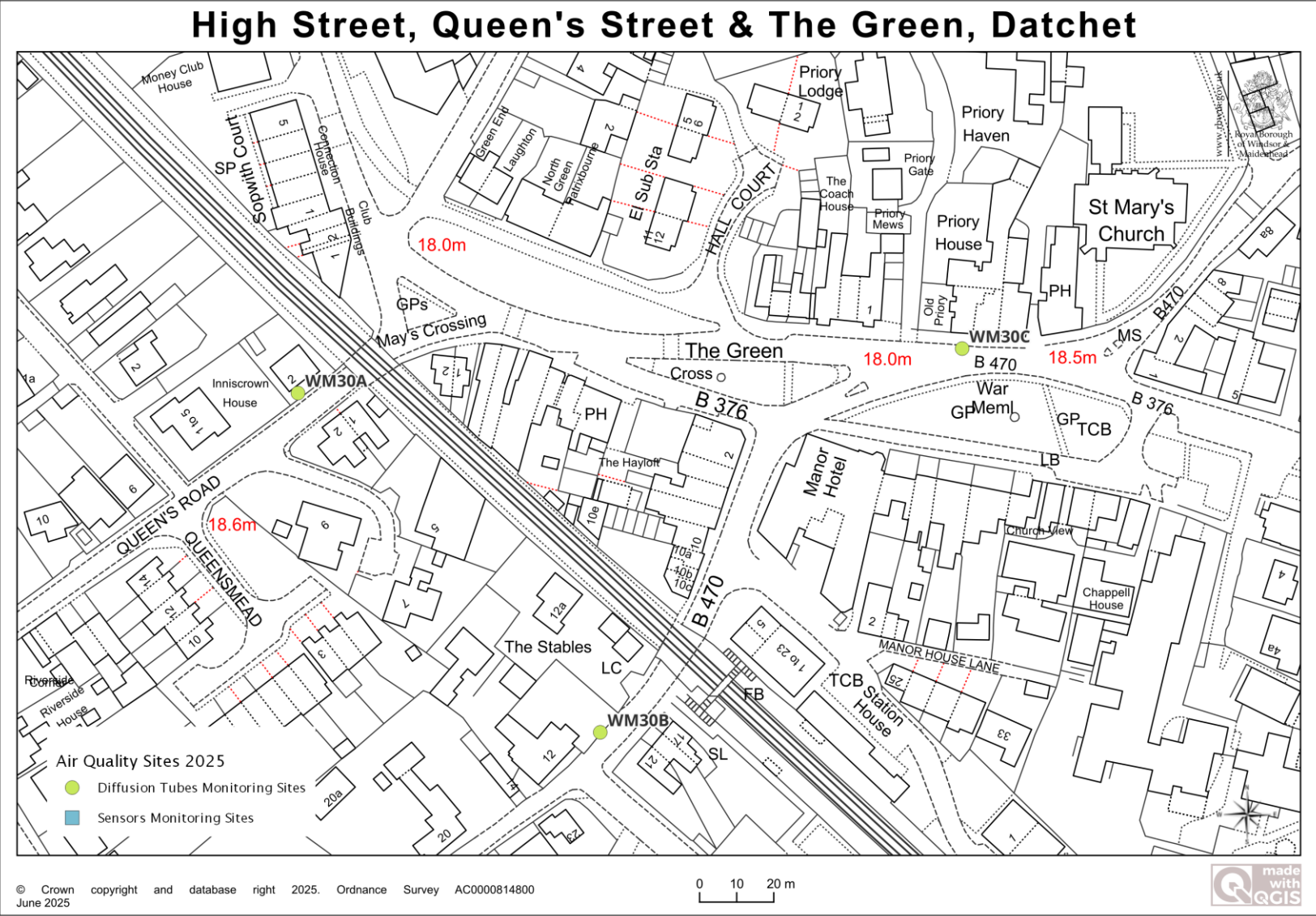


Figure D.13 – Monitoring Location – Straight Road

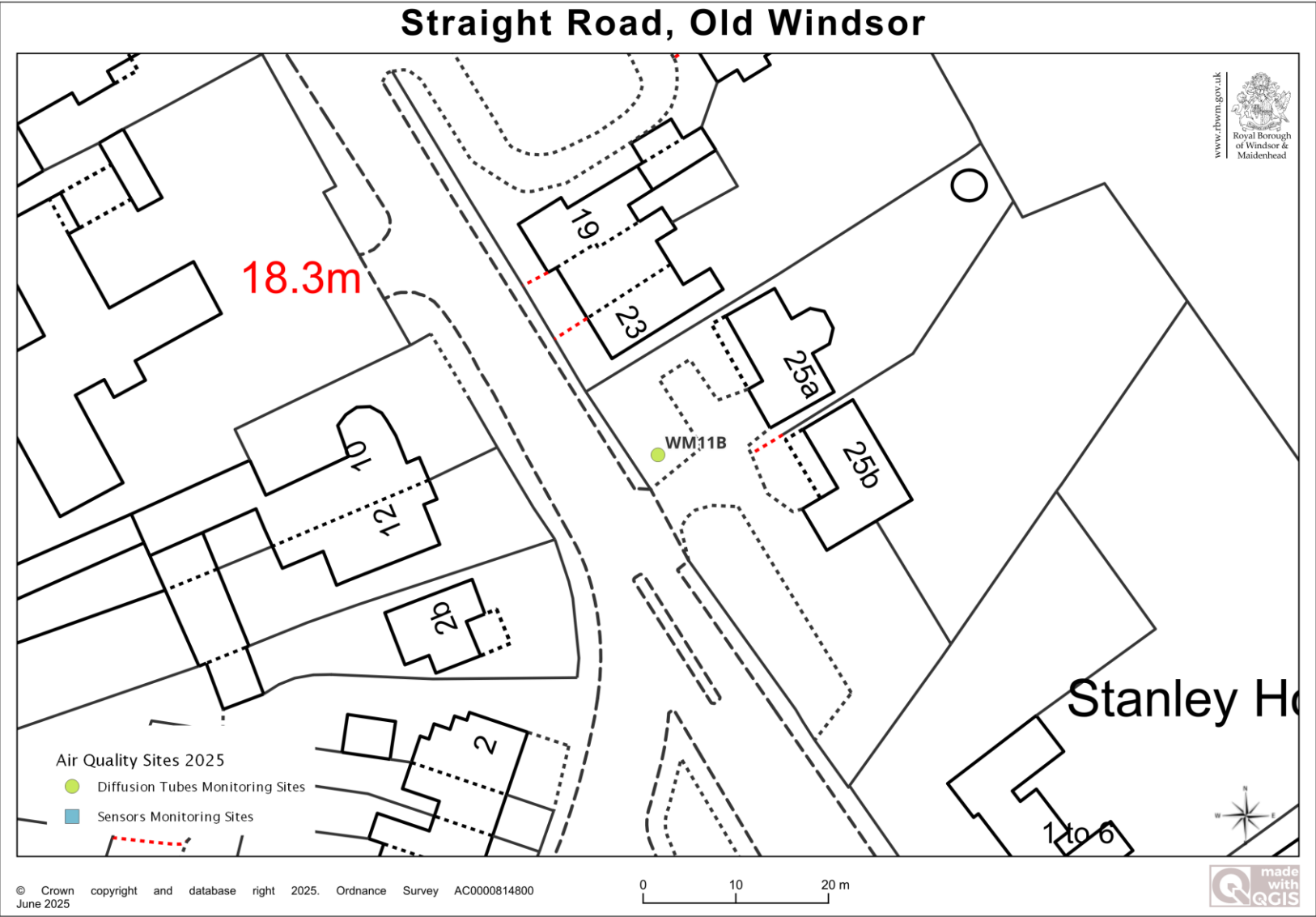
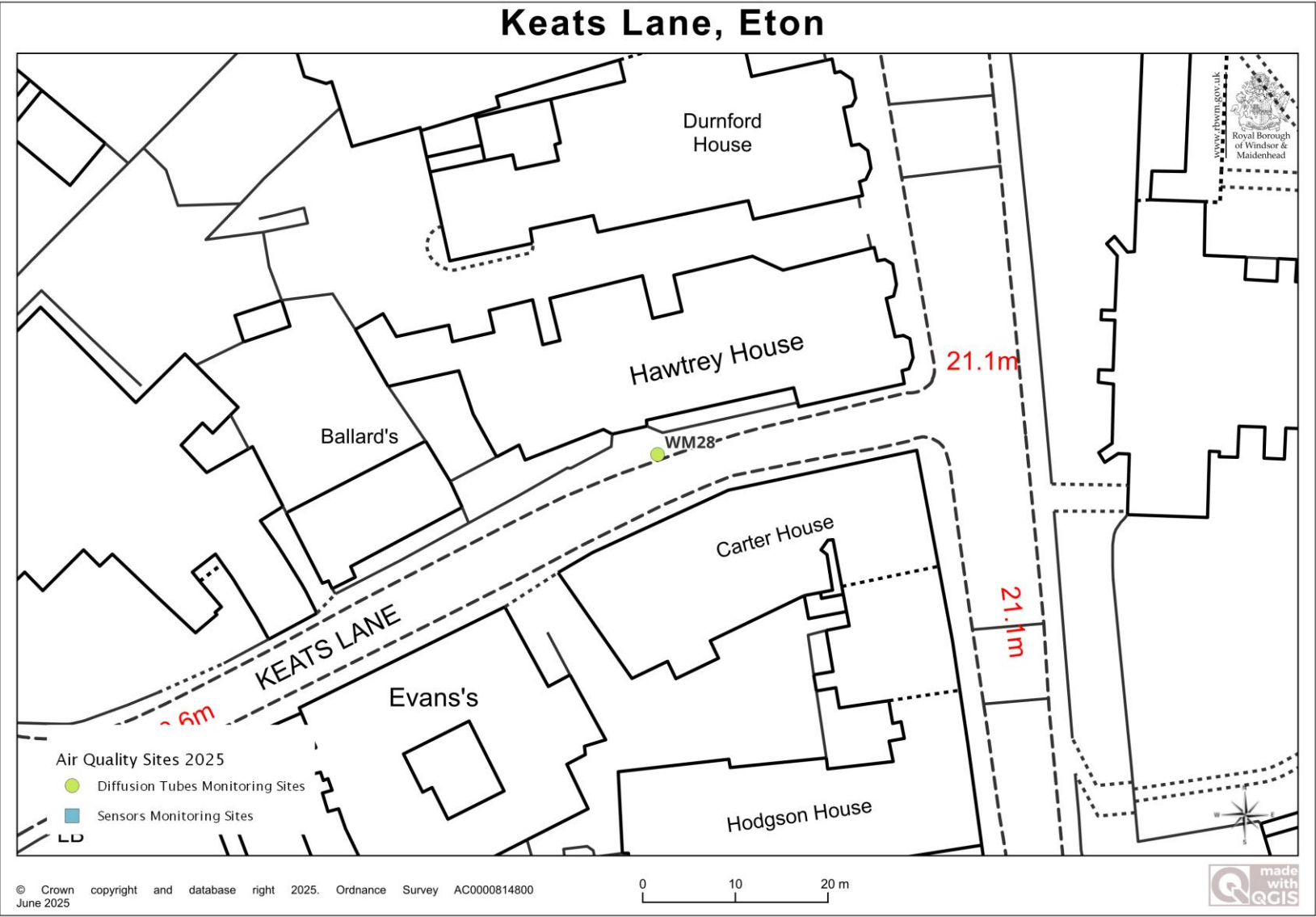




Figure D.14 – Monitoring Location – Keats Lane



## Appendix E: Summary of Air Quality Objectives in England

**Table E.1 – Air Quality Objectives in England<sup>2</sup>**

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO <sub>2</sub> )	200µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO <sub>2</sub> )	40µg/m <sup>3</sup>	Annual mean
Particulate Matter (PM <sub>10</sub> )	50µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM <sub>10</sub> )	40µg/m <sup>3</sup>	Annual mean
Sulphur Dioxide (SO <sub>2</sub> )	350µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	125µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO <sub>2</sub> )	266µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean

<sup>2</sup> The units are in microgrammes of pollutant per cubic metre of air (µg/m<sup>3</sup>).

## 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
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
BAM	Beta Attenuation Mass – PM10 monitor
BSIPs	Bus Service Improvement Plans
LAQM	Local Air Quality Management
LCWIP	Local Cycling & Walking Infrastructure Plan
LTP	Local Transport Plan
µg/m <sup>3</sup>	Microgram per cubic metre
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
PM <sub>10</sub>	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM <sub>2.5</sub>	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
RBWM	Royal Borough of Windsor & Maidenhead

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