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

This ASR was prepared by the Pollution Control Department within Planning and Environment Directorate of Eastleigh Borough Council with the support and agreement of the following officers and departments:

- Cali Sparks, Sustainable Transport Planner
- Andy Brennan, Climate Change Manager
- Graham Tuck, Planning Policy Manager

This ASR has been approved by:

- Andre Pires, Pollution Control Manager at Eastleigh Borough Council; and,
- James Howe, Head of Regulatory Services at Eastleigh Borough Council.

Hampshire County Council officers were consulted, feedback was included in the report.

Darren Carmichael, Principal Public Health officer from Hampshire County Council was consulted; however, the approval has not been received before the submission deadline.

If you have any comments on this ASR please send them to Yacklin Panza at:

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Executive Summary: Air Quality in Our Area

Air Quality in Eastleigh Borough

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_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO_2)	Sulphur dioxide (SO_2) is a corrosive gas which is predominantly produced from the combustion of coal 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 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.

As part of the Council's responsibility to review and assess air quality across the Borough there is a long history of monitoring and delivering initiatives to tackle air quality issues. Air pollution levels are compared to objective levels set by the government, and where pollutant concentrations exceed these levels an Air Quality Management Area (AQMA)

must be declared, and an Air Quality Action Plan (AQAP) produced[1]. AQAPs detail actions aimed at reducing pollutant levels to below the national objectives.

There are No.4 declared AQMAs within Eastleigh Borough, all of which were declared due to concentrations of NO_2 exceeding the annual mean national objective of 40µg/m^3 (Micrograms per cubic metre). Currently, the average annual NO_2 concentration across the entire Borough is 19.7µg/m^3, with a highest of 34.6µg/m^3 within AQMA No.3.

A consistent decreasing trend on NO_2 concentrations over the past 6 years has led to the recommendation to revoke AQMA No.2, which will be discussed during Eastleigh Borough Council Cabinet's meeting in July 2025. Subject to Cabinet approval, formal notification of the revocation will be submitted to Defra. The Council is also considering of revocation of the remaining AQMAs across the borough in the near future.

In addition to monitoring NO_2 levels, Eastleigh Borough Council is committed to monitoring concentrations of particulate matter (PM_{10} and $PM_{2.5}$), in line with national government objectives. This work aims to reduce overall population exposure and, in turn, minimise health risks, particularly for the most vulnerable members of the community. For 2024, the annual average concentrations of PM_{10} and $PM_{2.5}$ are 16.4 µg/m³ and 8.3µg/m^3 respectively. It is anticipated that the decline in NO_2 concentrations contributes to a reduction of concentrations of particulate matter (PM_{10} and $PM_{2.5}$).

The Eastleigh Air Quality Action Plan 2020-2025 is currently under review, with the Council's commitment of submitting an updated plan to DEFRA by December 2025. This Action Plan will include measures to improve air quality in the area, specifically targeting a reduction of NO_2 concentrations across the Borough.

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 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

[1] Air Quality Action Plan Eastleigh Borough Council 2020-2025

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

fine particulate matter ($PM_{2.5}$), the most harmful pollutant to human health. The 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 travel, and the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Some of the actions Eastleigh Borough Council have implemented during 2024 to accomplish the above objectives are:

DEFRA AQ Grant Project 2021-2022 – MyLearney (Sustrans)

Approved in March 2022 and completed in May 2024, this project combines direct engagement with No. 4 local schools and wider reaching communications campaigns to improve knowledge and information on air quality issues, aiming to influence behaviour changes that will result in reduced exposure to air pollution and active travel. The project includes various activities such as awarding Clean Air Aware flag and certificate, providing online tool kits, and introducing monitoring tools like diffusion tubes. More details on these activities are presented in Section 2.2.1.

DEFRA AQ Grant Project – Solid Fuel Burning Engagement

Funded through the DEFRA Air Quality Grant Scheme 2023-2024, this collaborative project involves Eastleigh Borough Council, other neighbouring authorities (Southampton City Council - SCC, Winchester City Council - WCC, New Forest District Council - NFDC) and The Environment Centre (tEC). The initiative focuses on delivering targeted public information and engagement activities to promote the reduction of emissions, particularly particulate matter, from domestic burning. Some of the activities include: public engagement via social media, delivery of door-to-door flyers, providing training to healthcare professionals, delivering talks and workshops to local community; and contact

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

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

wood burner suppliers to discuss and advise on best practices. Details on these activities are presented in Section 2.2.2.

Cycle together Eastleigh Programme

Working with Hampshire County Council to deliver improvement works around cycle paths within Chandler's Ford area to promote sustainable and active travel. This project was completed in Summer 2024. More details on this project can be found in Section 2.2.3.

Eastleigh Travel Hub

Funded though Hampshire County Council - Transforming Cities Fund (TCF) granted in 2020, this project involves the installation of electronic bikes and car club vehicles across various locations in Eastleigh and Southampton Parkway. The project was partially completed in 2024, with some additional e-bikes to be deployed by 2025. Details on this project are presented in Section 2.2.4.

Conclusions and Priorities

Monitoring data collected from both passive and automatic sites across Eastleigh Borough during 2024 confirmed continued compliance with the annual mean national objective for NO_2 concentrations (40µg/m^3), with no exceedances recorded at any monitoring locations. The ongoing decreasing trend in NO_2 concentrations, observed at the majority of monitoring locations in recent years, persisted throughout 2024. This constant improvement has supported the revocation of AQMA No. 2 (M3), which will be discussed by the Cabinet during July 2025 meeting, and the potential for revoking additional AQMAs in upcoming years.

The reduction in pollutant levels is likely influenced by a combination of factors, including changes in traffic patterns due to widespread adoption of flexible working practices, the evolution of vehicle fleets, and the implementation of local improvement measures.

The Air Quality Action Plan (AQAP), adopted in February 2020, is currently under review. Eastleigh Borough Council submitted a request to Defra for an extension to the submission deadline, which was approved, extending the timeframe for submission of the updated Action Plan until December 2025. The Council remains fully committed to progressing the production of the AQAP and to improve air quality and reduce levels of air pollution throughout the Borough.

How to get Involved

Local engagement is an important instrument in effectively tackling air pollution across the Borough. Our residents, businesses and other local groups and organisations all have a role to play. Everyone can help to improve air quality with their actions, including:

- Leave your car at home. Use car less by choosing to walk, cycle or use public transport for some journeys.
- Reduce your vehicle emissions. Minimise car emissions by driving efficiently and turning engine off when stationary. Consider going electric when upgrading a car, join a car club to use a low-emission vehicle (i.e. Eastleigh's Cowheels).
- Help to reduce congestion. Reduce the number of single occupancy cars on the road by arranging a car share.
- Burn less wood. Minimise use of wood burning stoves and bonfires. Follow the DEFRA guide on appropriate appliances and fuel to reduce emissions.
- Reduce exposure to air pollution. Plan routes to use side streets and avoid heavily congested areas. Sign up for free to uBreath to receive air pollution alerts.

Useful Websites

- www.eastleigh.gov.uk/airquality - Eastleigh Borough Council's air quality website
- Eastleigh Borough Council - Air Quality monitoring service – continuous Air quality monitoring data from Eastleigh Borough
- Diffusion Tube Data | Eastleigh – Diffusion tubes (passive, indicative method) results
- Car Share: Co Wheels Car Club | Co Wheels | Co Wheels - Car club operating in Eastleigh Borough
- www.myjourneyhampshire.com - Information on sustainable transport options and journey planning
- uBreathe - air pollution health advice
- Open fires and wood-burning stoves - a practical guide - DEFRA guidance on wood burning
- Wood burning – the Environment Centre (tEC) - Solid fuel burning campaign page
- Home - Sustrans.org.uk - Support on walking and cycling
- Cycling in Eastleigh | Eastleigh Borough Council – Cycling and walking in Eastleigh

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1 Local Air Quality Management

This report provides an overview of air quality in Eastleigh Borough 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 Eastleigh Borough Council 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.

A summary of AQMAs declared by Eastleigh Borough Council can be found in Table 2.1. The table presents a description of the 4 AQMAs that are currently designated within Eastleigh Borough. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO_2 40 µg/m^3 annual mean.

Following compliance for the last 3 consecutive years of AQMA No.2 (M3) Appendix A: Monitoring Results), a proposal is being submitted to Eastleigh Borough Council's Cabinet in July 2025 recommending its revocation. If the recommendation is approved, a notification of revocation will be submitted to Defra in accordance with Local Air Quality Management guidance.

A process to discuss the revocation of other AQMAs and committing to develop an Air Quality Strategy will be discussed in future Committees and Cabinet meetings, as well as with other key stakeholders such as Hampshire County Council, Public Health, Highways Authority amongst others. This approach was welcomed by the James Moore, Principal Transport Planner from Hampshire County Council, who indicate will provide support on the scoping and preparation of the Air Quality Strategy when the opportunity arises.

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
Eastleigh AQMA No. 1 (A335)	Declared 16/02/2005, Amended 03/02/2015	NO_2 annual mean	Follows the A335 Southampton Rd, Romsey Rd & Leigh Rd. Amended to extend a short way along Woodside Ave, Twyford Rd & Bishopstoke Rd. It includes a number of properties on each road.	YES	>40 µg/m^3	23.2 µg/m^3	> 4 years	Eastleigh Borough Council Air Quality Action Plan 2020 - 2025, February 2020	https://www.eastleigh.gov.uk/media/7200/ebc1-aqap-2020-2025.pdf
Eastleigh AQMA No. 2 (M3)	Declared 03/07/2006	NO_2 annual mean	An area extending either side of the M3 motorway from junctions 12 to 14.	YES	>40 µg/m^3	16.3 µg/m^3	> 6 years	Eastleigh Borough Council Air Quality Action Plan 2020 - 2025, February 2020	https://www.eastleigh.gov.uk/media/7200/ebc1-aqap-2020-2025.pdf

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
Hamble Lane Area AQMA No. 3	Declared 03/07/2006, Amended 20/06/2011, Amended 30/08/2019	NO_2 annual mean	Follows the B3397 Hamble Lane from its junction with the A3025 Portsmouth Rd to the Windhover roundabout, encompasses the roundabout and follows the A27 south east to the Borough boundary with a 30m corridor on either side.	YES	>40 µg/m^3	25.1 µg/m^3	> 4 years	Eastleigh Borough Council Air Quality Action Plan 2020 - 2025, February 2020	https://www.eastleigh.gov.uk/media/7200/ebc1-aqap-2020-2025.pdf
High Street Botley AQMA No. 4	Declared 20/06/2011	NO_2 annual mean	An area encompassing a number of properties along High Street from Maypole roundabout to the Winchester Street junction.	YES	>40 µg/m^3	22.3 µg/m^3	>6 years	Eastleigh Borough Council Air Quality Action Plan 2020 - 2025, February 2020	https://www.eastleigh.gov.uk/media/7200/ebc1-aqap-2020-2025.pdf

☒ **Eastleigh Borough Council confirm the information on UK-Air regarding their AQMA(s) is up to date.**

☒ **Eastleigh Borough Council confirm that all current AQAPs have been submitted to Defra.**

2.2 Progress and Impact of Measures to address Air Quality in Eastleigh Borough Council

Defra's appraisal of last year's ASR concluded that:

- *The Council have correctly applied QA/QC protocols for annualisation and have selected an appropriate bias adjustment factor.*
- *The Council have demonstrated consistency between the ASR submission and the supplementary Excel ASR Tables.*
- *The graphical trends showing the changes in annual mean NO_2 concentrations from non-automatic monitoring are well presented and accurately demonstrate the annual mean concentrations compared against the corresponding air quality objective for NO_2.*
- *The Council have assessed the non-automatic monitoring data for 2023 and the previous years of 2019-2022, and have determined that 2 AQMAs are ready for revocation in light of the data seen in 2023. This is welcomed.*
- *Figures presented in the report are well-labelled and allow the reader to see which non-automatic sites are present with the AQMAs within the Council's jurisdiction.*
- *This ASR has not received Director of Health approval. Defra recommends that Directors of Public Health approve draft ASRs.*

As indicated in the previous report for 2023, AQMA No.2 and AQMA No.4 are now more than 6 years compliant with the national air quality objective for NO_2, with a constant decreasing trend.

In relation AQMA No.2, based on the data gathered from air quality monitoring, Eastleigh Borough Council have decided to revoke AQMA No.2 (M3), which will be effective from July 2025 after consultation with elected members.

As for AQMA No. 4, the Council's Pollution Control Team installed a new diffusion tube monitoring site in September 2024 to capture worst-case exposure conditions along High Street, Botley and nearer to receptors. The results of the monitoring will be assessed in the next ASR to include at least a 12-month period. If compliance with the relevant objective is verified, the AQMA No. 4 will also be revoked.

However, it is important to highlight that there is a difference between legislative (national objective) and health guidance (WHO). The Council remains committed to making further improvements to reduce levels of air pollution within the borough.

Eastleigh Borough Council has 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, or planned, are set out in Table 2.4.

No. 55 measures are included within Table 2.4, with the type of measure and the progress Eastleigh Borough Council have 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 presented within Table 2.4.

More detail on these measures can be found in the Eastleigh Borough Council Air Quality Action Plan (AQAP) 2020-2025. This Action Plan is currently under review, as its scheduled revision date was 24/02/2025; however, due to exceptional circumstances, Eastleigh Borough Council submitted a request to Defra for an extension to the submission deadline, which was approved, extending the timeframe for submission of the updated Action Plan to December 2025. The Council remain fully committed to progressing the production of the AQAP.

Key completed and grant extended measures are:

2.2.1 DEFRA AQ Grant Project 2021-2022 – MyLearney (Sustrans)[5]

The school engagement project (RDEL – the revenue element) was completed in May 2024, with a report submitted to Defra to inform completion. The objectives of this project were to spread air quality awareness to students, parents and staff via assemblies, campaigns and engagement activities as well as to promote active travel. A total of No. 4 school participated (out of 17 contacted schools), being these ones: Toynbee School, Cherbough Primary School, Deer Park School and Hamble Primary School. Some of the figures are detailed below:

- 6 assemblies,18 focused sessions and 3 parent outreach sessions;
- 3 “Bike Doctor” events;
- 1,526 pupil interactions, 93 staff, and 104 parent engagements;

[5] Schools awards scheme promotes clean air

- Diffusion tube monitoring of NO_2 at all four schools;
- Student-led campaigns focused on anti-idling and air quality awareness;
- At Hamble Primary, a video was created by the children as part of the Think It, Act It and Stop It campaign. The video was shown during assembly to all pupils and sent out to parents as part of the Anti-idling campaign week in March 2024.
- Toynbee Secondary students created a campaign focused on idling outside their school, called 'Be an Idol, don't Idle', which included designing a banner, badge and a presentation across the school.
- Students of Deer Park Eco-Focus group created the campaign 'Show you care, spare the air', shared across the school, including their newspaper.
- At Cherbourg Primary, pupils were engaged in investigating source of pollution areas and identifying suitable locations for diffusion tubes.
- Clean Air Aware scheme was launched at Toynbee School on 21/09/2023 with a local councillor, press and two Sustrans officers in attendance, publicised in Eastleigh's Borough News (delivered to 52,000 residents) and in the digital e-bulletin (22,000 subscribers).

2.2.2 DEFRA AQ Grant Project – Solid Fuel Burning Engagement

Eastleigh Borough Council Clean Air Night Online campaign

Eastleigh Borough Council carried out online public engagement activities during the January-March 2024, to raise awareness about air quality and promote behaviour change, particularly around domestic burning. These activities were delivered via social media, the Council's website, and e-newsletters, with support of the Environment Centre (tEC). Some figures are summarised below:

- Clean Air Night Campaign (08/01/2024), launched via the Council's website under the message "Council supports campaign for cleaner air." The campaign webpage reached a total of 89 users, including 29 new users[6].
- Clean Air Night Email Campaign (12/01/2024), shared via weekly emails highlighted that "Wood burners are almost always more expensive to heat your home than gas boilers or heat pumps." achieved 20,137 impressions, 11,376 users reached, and generated 200 link clicks to further resources.

[6] Council supports campaign for cleaner air

- Social Media Posts -with support of the Environment Centre (tEC), the Council's communications team uploaded several posts in line with wood burning campaigns:
    - On 08/01/2024, a post titled "Using a wood burner to save money?" reached 2,627 users, received 43 reactions, and generated several comments.
    - On 22/01/2024, the post "Did you know that opting for alternative solutions to wood burning…" reached 782 users, with 2 reactions and 1 comment.
    - On 08/03/2024, the post "Start the conversation of burning wood at home" reached 278 users, although it did not receive any reactions or comments.

The Environment Centre (tEC) wood burning campaigns

The partnership with tEC[7] delivered 4 public awareness campaigns throughout 2024, promoting information on the impacts of using solid fuel stoves and ways of improving practices on their operation and comparing the use of different fuels as sources of heat. They also addressed issues such as bonfire use within local communities. A summary of the campaign's reach and engagement is provided Table 2.2 below:

Table 2.2 – Details of social media activity from tEC campaigns

Date of campaign	Social Media Activity tEC		
	Twitter/ X	Facebook	Website
Year 4: Winter Wood Burning Campaign (January-March 2024)	26 posts 16,895 reach 1,009 engagement	3 posts 3,500 reach 15 reactions	
Year 4: Summer Bonfire Campaign (April-June 2024)	23 posts 7,725 impressions 697 reach	1 post 153 reach	574 views
Year 4: Summer Bonfire Campaign continued (July-September 2024)	18 posts 212,062 impressions	3 posts 1,451 reach	658 views 493 users
Year 5: Winter Wood Burning Campaign (September-December 2024)	7 posts 8,332 impressions	1,047 reach	1,379 views 1,088 users

[7] the Environment Centre (tEC) – Bringing the benefits of sustainability to everyone

Other activities supported by tEC across Eastleigh Borough are presented in Table 2.3 below:

Table 2.3 – Details of other activities from tEC campaigns

Date of campaign	Activities
Year 4: Winter Wood Burning Campaign (January-March 2024)	- Delivery of door-to-door flyers targeting postcodes SO30 0 and SO30 3 (selected due to domestic burning complaints received), reaching a total of 6,197 households. - Pop-up stands at Eastleigh, Chandlers Ford and Ringwood Libraries during their Green & Thrifty fortnights, engaging 45 residents. - Engagement with industry, including meeting between the Local Authorities and Hugh Wells (Managing director of local stove manufacturer, A.J Wells & Sons Ltd). - Data from Zephyr air quality monitors deployed under this project was analysed by Earthsense and researchers at Southampton University.
Year 4: Summer Bonfire Campaign (April-June 2024)	- Contacted all GP surgeries in Eastleigh with offer of wood burning/air quality training. - Zephyr monitor analysis received. Air pollution peaks during Winter evenings likely attributable to domestic wood-burning.
Year 4: Summer Bonfire Campaign continued (July-September 2024)	- Pavilion on the Park (July): Delivered talk at People and Planet workshop to local community leaders. 8 residents in attendance. - Eastleigh Late Summer Festival (August) Spoke to 20 residents. Concern about woodsmoke. - Delivered training to 6 healthcare professionals (Care navigators, Social prescribers and Pro-active care nurses) representing three local practices in the South Eastleigh. - Visits to Garden Centres (Allington Nursery and Hillier Garden Centre, Botley) to provide Bonfire campaign leaflets/posters. Delivered staff training where possible.
Year 5: Winter Wood Burning Campaign (September-December 2024)	- New suite of assets produced for winter Wood burning Campaign, with messaging informed by report on Zephyr data. - Out of Home advertising campaign delivered at four sites in Eastleigh – three static bus stop ads and one digital display screen. Total reach of Out of Home ad campaign in EBC, WCC and NFDC combined: 1,193,813 people exposed to our campaign. - Successful conversations with 3 stove installers based in EBC. Discussed their current provision of burn better and cleaner advice and most common issues they encounter in user practise. Majority of installers interested in this project but don't want to provide messaging to customers which mentions air quality. - Indoor monitoring began with co-located (indoor/outdoor) Zephyr sensors.

2.2.3 Cycle together Eastleigh Programme

Hampshire County Council appointed a contractor to undertake improvement works around Chandler's Ford area[8], with the main objective of promoting sustainable travel. The works involved the removal of obstructive infrastructure (i.e. staggered barriers, guard railing, bollards) and implementation of dropped kerbs to allow access to wheelchairs, pushchairs, etc. The project was completed in Summer 2024.

2.2.4 Eastleigh Travel Hub

Working with Hampshire County Council, and funded by Transforming Cities Fund (TCF) granted in 2020, travel hubs are installed to offer a combination of cycle hire and car club vehicles, in addition to high quality parking and access to public transportation. A total of 50 e-bikes were deployed across various locations in Eastleigh and Southampton Parkway. Eastleigh saw the deployment of 45 Beryl bikes, complete with information totems, seating, and planters, with the remainder set to be deployed in 2025[9]. Additionally, Hampshire County Council have provided No. 2 new vehicles for car club scheme in Eastleigh Town Centre.

Eastleigh Borough Council expects the following measures to be completed over the course of the next reporting year:

- **DEFRA AQ Grant Project – Solid Fuel Burning Engagement:** continuing delivery of the project along with our partners (neighbouring local authorities and tEC). However, this project will be terminated in Summer 2025 and the Council is not renewing this contract due to lack of funding. EarthSense Zephyr monitors were installed as part of the project (unit z1391 – located at Hedge End 2000 Centre, St. John Road, which subscription ends on 06/12/2025; and unit z1355 – Hamble School, which subscription ends on 15/06/2026). After these dates the monitors will be decommissioned.

[8] Chandler's Ford Accessibility Improvements | Transport and roads | Hampshire County Council

[9] Eastleigh Travel Hub | Transport and roads | Hampshire County Council

Eastleigh Borough Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Other Eastleigh Borough Council Departments, such as Sustainable Transport, Climate Change, Planning Policy, and others;
- Local Area Managers;
- Local Area Committees;
- The University of Southampton;
- The Environment Centre (tEC);
- Earthsense;
- Sustrans;
- Hampshire County Council (HCC);
- Neighbouring local authorities, such as Southampton City Council (SCC), Winchester City Council (WCC) and New Forest District Council (NFDC); and,
- National Highways.

Eastleigh Borough Council's priorities for the coming year are:

- Continue working with the various parties, neighbouring and higher tier councils and transport (National Highways and SW Railway & Network Rail) representatives involved in the development of Eastleigh Transport Strategy and Action Plan to promote measures beneficial for local air quality. In line with the UK Local Government Reorganisation plans, efforts will also focus on ensuring that air quality objectives are integrated and aligned across emerging governance structures and regional strategic frameworks.
- Continue monitoring using passive, indicative and reference methods of monitoring to investigate the current trend in air quality readings, including areas that will be no longer declared as AQMA, such as M3 areas.
- Further consider if research on possible locations to relocate the continuous monitoring equipment at Steele Close is needed.
- Retain a permanent member of staff responsible for air quality to continue the established line of work and develop further projects beneficial for local air quality.

- EV charging points - continue delivery of public electric vehicle charging points across the borough in accordance with the Council's Climate Change Action Plan[10].
- Car Club – increase the number of parking bays and car club locations within the Borough, including provision on the One Horton Heath development site (expected in late 2025), and increase the staff uptake of the car club scheme.
- Continue supporting the Walking and Cycling Strategy 2023-2030[11], adopted in July 2023 to promote active travel, reduce congestion and improve air quality within the Borough.
- Anti Idling Campaigns – start looking for possible actions to prevent idling behaviour around sensible areas (i.e. schools).
- The Pollution Control Team will closely oversee the allocation and use of developer contributions (Section 106 agreements), to ensure they are effectively utilised to support and maximise improvements in local air quality.

The principal challenges and barriers to implementation that Eastleigh Borough Council anticipates facing are:

- **Lack of funding:** Insufficient funding is a common barrier to implementation of any measure; therefore, it is crucial to continue working with partners and stakeholders to engage them early on potential new projects and submit applications for joint funding.
- **Resource challenges:** limited staff availability to design, manage, monitor and deliver air quality projects. Addressing this issue will require continued collaboration with regional partners, and pursuit of external support where necessary.

Progress on the following measures has been slower than expected due to lack of funding and resourcing:

- **Upgrade of Monitoring Equipment:** The work to deliver Hamble Lane monitoring equipment has started and a few locations were reviewed. Implementation of this measure will be subject to funding.

[10] Eastleigh Climate Change and Action Plan

[11] Walking and Cycling Strategy 2023-2030

- **Co-wheels/ car club scheme:** this project is in progress, with potential one additional space in Eastleigh Town Centre and looking to roll out expansion into other areas during second half of 2025.
- **Re-establishing Partnership Working:** the Council will work to re-establish regular links with partnership organisations, subject to budget and resources.

The measures stated above and in Table 2.4 will help to contribute towards compliance. Subject to Cabinet approval in July 2025, the revocation of AQMA No.2 will take effect thereafter. Revocation of AQMA No.4 is currently planned for 2026, subject to continued passive monitoring data from newest worse-case scenario location and Cabinet's approval. The situation in Eastleigh AQMA No.1 (A335) and AQMA No.3 (Hamble Lane) requires further confirmation of compliance. Eastleigh Borough Council anticipates that these measures will achieve compliance in AQMA No.1 (A335) and AQMA No.3 (Hamble Lane).

Table 2.4 – Progress and Impact of Measures to address Air Quality in Eastleigh Borough

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
ENV1.1	Monitor pollutant concentrations within AQMAs and across the Borough, including NO2 and PM	Other	Other	2010	2030	EBC	EBC / Developer Contributions / DEFRA AQ Grant 2010-11	Funded	£10k - 50k	Implementation	-	>85% data capture for each calendar year	Monitoring ongoing, with average data capture of 99.8% for automatic sites and 92.9% for diffusion tubes during 2024. See Section 3 for details and results.	Data available at www.eastleigh.my-air.uk
ENV2	Work in partnership with other Councils and key groups	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	2012	2030	EBC / other Hampshire authorities	EBC	Funded		Implementation	-	Attend 4 meetings per year of the Hampshire Air Quality sub-group	Member of Pollution Team attended to Hampshire Air Quality subgroup during 2024. Partnership is working on projects such as the solid fuel burning campaign (see measure HS3) continued throughout 2024 and 2025.	
ENV3	Promote the use of electric vehicles by investigating incentives and developing a network of publicly available electric vehicle charge points across the Borough in both public and business locations	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2012	2030	EBC / HCC / External Partners / Developers	EBC / HCC / OLEV / External Partners / Developer Contributions	Partially Funded	£50k - £100k	Implementation	Reduced vehicle emissions	Increase number of publicly available EV charging points Collect data on total number of kWh used	15 charge points have been installed across the Borough in nine locations. The Council lease sites to MER who install and operate the chargers. MER cover the cost of installation and maintenance and EBC gets a small profit share in return. In total there are 12 charge points across the local area ranging from semi-fast to fast with a total of 28 connectors. Total kwh used between 2024-2025 = 23,627 Representing an increase of around 7% with respect the previous year 2023-2024 (22154 kwh)	Eastleigh pilot electric vehicle chargepoint scheme | Transport and roads | Hampshire County Council
TR2.1	Continue to improve and extend the walking network in line with the new walking and cycling strategy, including running pedestrianisation events	Promoting Travel Alternatives	Promotion of walking	2012	2025	EBC / HCC / Developers	EBC / HCC / Developer Contributions / Reopening High Streets Safely Fund	Partially Funded	£10k - 50k	Implementation	Reduced vehicle emissions	Increase number of pedestrian improvement schemes completed	EBC has been awarded UKSPF funding from DHCLU in 2022, an element of which will be used to support community engagement work and to build a consensus around a vision for the future of the town centre. Survey conducted between 19/09/2024 to 20/10/2024 and a total of 2,442 responses), with many people responded favourable to a pedestrian-friendly layout of town centre	Shared Prosperity Fund - Eastleigh Borough Council
TR2.2	Improve and extend the cycle network in line with	Transport Planning and	Cycle network	2012	2025	EBC / SCC / HCC / Developer	EBC / SCC / HCC / Developer	Partially Funded	£1 million - £10 million	Implementation	Reduced vehicle emissions	Increase length of cycle path available	Completed in 2023.	Eastleigh Town Centre - Cycle Route Improvements |

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	the new walking and cycling strategy, including: - maintenance of existing cycle paths - addition of new cycle routes - promotion of electric bicycles	Infrastructure				s / Transforming Cities	Contributions / Transforming Cities Fund					Add publicly available charging points for electric bikes	In 2024, a total of 45 Beryl bikes were deployed across Eastleigh, including Eastleigh Town Centre, Eastleigh Train Station, Fleming Park, Shakespeare Road, Somers Way, Tinning Way, Bosville and Chesnut Avenue, completed with information totems, seating, and planters, with the remainder set to be deployed in 2025. See	Transport and roads | Hampshire County Council Eastleigh Travel Hub | Transport and roads | Hampshire County Council
TR3	Run campaigns aimed at reducing vehicle emissions, including: - reducing the number of single occupancy cars - reducing idling of stationary vehicles	Public Information	Other	2020	2030	EBC	EBC	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Run 2 campaigns Increase a number of people engaged	Anti-idling campaigns still on design stage. Implementation is estimated for 2026.	-
TR4.1	Work in partnership with bus companies to: - improve routes and services - increase patronage - develop a multi operator ticketing system	Transport Planning and Infrastructure	Bus route improvements	2012	2024	EBC / HCC / Bus Service Operators Grant / Bus Companies / Transforming Cities	EBC / HCC	Partially Funded	£1 million - £10 million	Implementation	Reduced vehicle emissions	Maintain number of supported services Increase bus patronage	Transforming Cities funding received March 2020 includes provision of bus infrastructure, see measures BIFOHH1 and ELAC7 for more details. Completed in May 2024, this scheme included real time passanger information, green roofs and wireless charging seats at Alan Drayton Way, Eastleigh Train Station and Stoke Wood Surgery	Corridor 4, Eastleigh and Fair Oak Improved Bus Stops with Real Time Information | Transport and roads | Hampshire County Council
TR4.2	Work with rail operators, network rail and the community rail partnership to: - improve routes and services	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2012	2022	EBC / Rail Operators	EBC / SWR Customer & Communities Improvement Fund 2020-22	Partially Funded	£50k - £100k	Implementation	Reduced vehicle emissions	Increase train patronage	SWR Customer & Communities Funding received March 2020 to improve station access, see BHH4.1 - Funding received March 2020 for a project at Hamble & Netley stations, to improve access and direct to key locations.	-

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	- improve facilities for multi modal journeys - increase patronage - minimise the impact of emissions from rail transport													
TR4.4	Engage with companies running non-service buses (school buses, learner drivers, rail replacement etc.) to explore upgrade options	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	2021	2030	EBC / Bus Companies	Not Identified	Not Funded	Not Identified	Planning	Reduced vehicle emissions	Increase proportion of buses classed as EURO VI or better to 100%	Work in progress	This measure has been added in the latest update of the AQAP as a follow on from TR4.3. Timescale may be adjusted when finalised plan has been identified.
TR5.1	Promote the Low Emission Taxi Incentive scheme to encourage uptake	Promoting Low Emission Transport	Taxi emission incentives	2017	2030	EBC / SCC / External Partners	DEFRA AQ Grant 2018-19	Funded	£50k - £100k	Implementation	Reduced vehicle emissions	Increase number of grants awarded	Work in progress	Subject to funding
TR5.2	Implement a requirement for taxis to meet specified EURO standards in order to be licensed in EBC	Promoting Low Emission Transport	Taxi Licensing conditions	2020	2030	EBC / SCC	EBC	Not Funded		Implementation	Reduced vehicle emissions	100% of taxis meet specified EURO standards	New licensed diesel vehicles MUST meet EURO 6 emission standard effective from 01/01/2022. Licensing team confirmed that the conditions are in place on all licences issued.	Between January and December 2023, there were 123 licensed diesel vehicles that did not meet the EURO 6 standard. This number decreased to 74 between January and December 2024, showing a clear decline in the number of non-EURO 6 compliant diesel vehicles licensed by EBC, indicating progress toward cleaner vehicle standards.
TR6	Promote and expand car clubs	Alternatives to private vehicle use	Car Clubs	2020	2030	EBC / External Partners	EBC / Developer Contributions	Not Funded		Planning	Reduced vehicle emissions	Increase number of car club locations to 6	Only started in ELAC (Measure ELAC8). not started yet (see BHH5, CFH4 and HEWEB1) - The new contract will enable LAC to pump prime new locations across the Borough but this will be dependent on local funding being available.	Depending on local funding being available.
TR7	Increase availability of bicycle hire schemes	Promoting Travel Alternatives	Promotion of cycling	2020	2030	EBC / External Partners	EBC / External Partners / Transforming Cities	Not Funded	< £10k	Planning	Reduced vehicle emissions	Increase availability of hire schemes		Depending on local funding being available.
TR8	Consult on incentivising ownership of low emission	Traffic Management	Emission based parking or	2020	2023	EBC	EBC	Not Funded		Planning	Reduced vehicle emissions	Consultation completed	See CFH4, HEWEB1 and BHH5.	

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	vehicles through differential parking charges		permit charges											
TR10	Engage with HCC and HE on their highways improvements schemes, such as the SMART motorways project, to ensure they support our work on air quality	Traffic Management	UTC, Congestion management, traffic reduction	2012	2025	HCC / HE	EBC / HCC / HE	Funded		Implementation	Reduced vehicle emissions	2 meetings per year with highways authorities	HCC Eastleigh Movement Strategy Engagement Event	Other events and meetings attended by Sustainable Transport Planner and Pollution Team Manger (e.g. Southampton Airport planning meetings)
HS1.2	Increase uptake of air quality alert service to help people manage their health in relation to air pollution	Public Information	Other	2015	2023	EBC	EBC	Not Funded		Planning	-	Increase number of people using the website	The change of the supplier resulted in the different alerts available through the monitoring page	Potential to be included as part of measure HS1.3.
HS1.3	Run regular public awareness campaigns to provide information and advice, and to promote services available	Public Information	Other	2012	2030	EBC / External Partners	EBC / External Partners	Not Funded		Planning	-	Campaigns run annually	Clean Air Day plans discussed as part of Hants AQ sub-group (see measure ENV2).	Supported by tEC until 2025.
HS1.4	Integrate AQ into our Health & Wellbeing engagement campaigns	Public Information	Via the Internet	2020	2025	EBC / External Partners	EBC / External Partners	Not Funded		Implementation	-	Increase number of people reached by campaigns	Social media activity, supported by EBC communications team and tEC	-
HS1.5	Work with local health professionals, health awareness groups and social prescribers to disseminate air quality information, particularly about airAlert	Public Information	Other	2020	2025	EBC / External Partners	EBC / External Partners	Not Funded		Implementation	-	Increase number of people reached	tEC (part of wood burning project) undertook a series of events including delivering training to 6 healthcare professionals within Eastleigh Southern Parishes area, talks at People and Planet workshop, Eastleigh Late Summer Fest, wood burning business, and garden centres. See measure HS3 AirAlert changed to uBreathe providing similar service available through the automatic monitoring page	

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HS2.1	Annually engage with schools in the borough for travel planning and to run clean air campaigns and local monitoring exercises	Promoting Travel Alternatives	School Travel Plans	2015	2025	EBC / SCC	EBC / SCC / Access Fund	Funded	£10k - 50k	Implementation	Reduced vehicle emissions	Increase number of schools participating per year	-	Affected by lack of resource.
HS2.2	Work with HCC to include EBC schools in expansion of Facilitate at least three 'School Streets' events per year, organising temporary road closures outside schools	Traffic Management	Other	2020	2024	EBC / HCC	EBC / HCC	Funded	< £10k	Planning	Reduced vehicle emissions	3 events held per year	In 2023 HCC concluded the School Streets trial and adopted a new School Street Policy in February 2024. HCC will support the introduction of school streets although the full costs of new sites is required to be funded by the school.	School Streets: how to set up and manage a scheme - GOV.UK Affected by lack of resource.
HS3	Provide information and advice on the use of solid fuel burners through joint project with neighbouring authorities	Public Information	Other	2020	2025	EBC / SCC / NFDC / WCC	DEFRA AQ Grant 2019-20	Funded	£100k - £500k	Implementation	Reduced emissions from burning	Project completed and findings reported to DEFRA	Communications campaign in progress, involving regular promotion of messages across a range of platforms and in conjunction with partner authorities to provide consistency for residents across a wider area. The University of Southampton contributing to data analysis for further facilitation of messages	Supported by tEC until 2025.
HOU1.1	Update planning guidance to require EV charging in new developments	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2020	2025	EBC	EBC	Funded		Planning	Reduced vehicle emissions	Updated planning SPD for air quality produced	This is now included as guidance in the Parking Standards Supplementary Planning Document (SPD) – aimed to be finalised and approved in July 2025	
HOU1.2	Update resident parking policies to incentivise low emission vehicles	Promoting Low Emission Transport	Priority parking for LEV's	2020	2025	EBC	EBC	Funded		Planning	Reduced vehicle emissions	Parking policies updated	Public consultation on revised Parking Standards (SPD) completed in July 2023 – aimed to be finalised and approved in July 2025	
HOU1.3	Update planning guidance to require low NOx boilers to be installed	Policy Guidance and Developm	Air Quality Planning and Policy Guidance	2020	2030	EBC	EBC	Funded		Planning	Reduced emissions from boilers	Updated planning SPD for air quality produced	Guidance Policy to be designed. Work in progress. Estimated for 2026.	Review of local plan will consider this measure further

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	in new developments	ent Control												
HOU1.4	Update planning guidance to require new developments to employ use of green infrastructure to mitigate air quality impacts	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2020	2025	EBC	EBC	Funded		Planning	Reduced pollutant concentrations	Updated planning SPD for air quality produced	Partially addressed by the Local Plan adopted in April 2022, which indicates: DM8 – Pollution: “While the provision of green infrastructure such as trees has been shown to have some beneficial effects on ambient air quality, this cannot be regarded as a measure that will be effective on its own in addressing air pollution in the designated AQMAs”	Review of local plan will consider this measure further
HOU1.5	Update planning guidance to require new developments are well served with sustainable transport facilities, to include walking, cycling and public transport	Transport Planning and Infrastructure	Other	2020	2025	EBC	EBC	Funded		Planning	Reduced vehicle emissions	Updated planning SPD for air quality produced	No progress. However, Local Plan adopted in April 2022 includes relevant policies on sustainable transport.	Review of local plan will consider this measure further
EC1.1	Update the EBC travel plan annually	Promoting Travel Alternatives	Workplace Travel Planning	2020	2030	EBC	EBC	Funded		Implementation	Reduced vehicle emissions	Annual travel survey completed, and plan updated	Travel Plan was fully updated in 2019 but periodically reviewed. The staff travel survey is due on 2025	
EC1.4	Upgrade EBC's internal fleet to low emissions vehicles	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2020	2030	EBC	EBC / Low Emission Grant	Partially Funded	£500k - £1 million	Implementation	Reduced vehicle emissions	Increase proportion of fleet made up of LEVs	Three electric refuse collection vehicles (RCV) have been purchased (out of a total of 37), representing 8% of the entire RCV fleet.	
EC2.1	Engage with businesses in the borough to do travel planning	Promoting Travel Alternatives	Workplace Travel Planning	2012	2030	EBC / SCC / Local Businesses	Developer Contributions	Partially Funded	£10k - 50k	Planning	Reduced vehicle emissions	Increase number of businesses engaged after an appointment of new Travel Planner post	Work in progress	Depending on funding/ resources available
EC2.2	Investigate adopting and promoting the ECO Stars Fleet Recognition Scheme to encourage local	Vehicle Fleet Efficiency	Fleet efficiency and recognition schemes	2020	2025	EBC	EBC	Not Funded	£50k - £100k	Planning	Reduced vehicle emissions	Increase number of businesses with ECO Stars accreditation	Work in progress	Depending on funding/ resources available

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	businesses to upgrade LGV fleets													
EC2.3	Work with local businesses to encourage use of last mile electric scheme	Freight and Delivery Management	Other	2020	2025	EBC / External Partners / Local Businesses / E-Cargo Bike Grant Fund	EBC	Partially Funded	£10k - 50k	Implementation	Reduced vehicle emissions	Number of businesses using a 'last mile' scheme	-	SCC have continued to engage with businesses in the Eastleigh area, however uptake has reduced since EBC funding was withdrawn.
EC4	Work with Southampton Airport to minimise the impact of their ground operations on air quality	Promoting Low Emission Transport	Other	2020	2025	EBC / Southampton Airport	EBC	Funded		Implementation	Reduced vehicle emissions	Updated surface access strategy in place	The Airport have adopted their surface access strategy (their travel plan for the site) and are delivering a number of travel plan measures. The airport also produced an Air Quality Monitoring between October- December 2023, reported in May 2024.Key figures from this report: - PM_{10} concentrations averaged 11.2µgm^{-3} No exceedances of the PM_{10} 24 hour UK objective. - $PM_{2.5}$ concentrations averaged 6.6 µgm^{-3} - NO_2 concentrations averaged 24.1 µgm^{-3} . No exceedances of the NO_2 1 hour UK objective.	Southampton Ambient Air Quality Monitoring
CFH1.1	Move location of continuous monitoring station currently at Steele Close and upgrade equipment	Other	Other	2019	2024	EBC	EBC	Funded	£10k - 50k	Planning	-	Site move completed	Steele Close monitoring location considered acceptable for background monitoring. The Council decided not to relocate it in 2024. However, the option will remain open for future relocation if needed.	Permission from Hampshire Fire Service needed. Difficulties securing landowners permission for relocation
CFH1.2	Carry out focussed sampling exercises targeted at areas of local community concern	Other	Other	2020	2023	EBC	EBC	Funded	< £10k	Completed	-	Better coverage of diffusion tube data and improved representation of exposure	Potential locations identified	Due to progress to compliance of DT data across the existing monitoring locations, previous consideration of relocation of passive methods deemed irrelevant to initiatives within the team. No further public concern received to act upon.
CFH4	Investigate expanding Co-Wheels electric vehicle locations to Chandler's Ford	Alternatives to private vehicle use	Car Clubs	2020	2030	EBC / External Partners	EBC / External Partners	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Add 1 new Co-Wheels location	Work in progress - The new contract will enable LAC to pump prime new locations across the Borough	Dependent on local funding being available.

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ELAC4.1	Explore options for maintaining elements of pedestrianisation in Eastleigh Town Centre	Traffic Management	Other	2021	2023	EBC / HCC	EBC	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Ongoing scheme for management of High Street and Market Street adopted	The UKSPF project for Eastleigh Town Centre gathered community and business feedback on pedestrianisation (Survey conducted between 19/09/2024 to 20/10/2024 and a total of 2,442 responses), with many people responded favourable to a pedestrian-friendly layout of town centre	Shared Prosperity Fund - Eastleigh Borough Council Together We Make Eastleigh Public Survey Report
ELAC5.2	Encourage uptake of pilot on street charging points and monitor their use	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2021	2030	HCC	HCC / OLEV grant	Funded	£100k - £500k	Implementation	Reduced vehicle emissions	Increased use of EV charging points	Hampshire County Council run and maintain the 28 residential chargers. Usage has continued to increase year on year since install. No further promotion has been done as these are residential on-street chargers that have been in place for several years. Year / kWh 21-22: 5,116 22-23: 9,760 23-24: 22,154 24-25; 23,627	-
ELAC6	Continue to seek approval and funding for the Chickenhall Lane Link Road	Transport Planning and Infrastructure	Other	2015	2030	EBC / HCC	EBC / HCC / External Partners / Developer Contributions	Not Funded	> £100 million	Planning	Reduced vehicle emissions	Delivery of link road		Long term aspiration
ELAC7	Improve and extend the cycle network to include upgraded cycle routes and facilities in Eastleigh town centre	Transport Planning and Infrastructure	Cycle network	2021	2025	EBC / SCC / HCC / Developers / Transforming Cities	EBC / SCC / HCC / Developer Contributions / Transforming Cities Fund	Funded	£1 million - £10 million	Completed	Reduced vehicle emissions	Increase length of cycle path available Add publicly available charging points for electric bikes	The HCC Eastleigh Town Centre Cycle Route scheme is completed.	Eastleigh Town Centre - Cycle Route Improvements | Transport and roads | Hampshire County Council
ELAC8	Create two mobility hubs to offer multi-modal transport options and facilities at key locations in Eastleigh	Promoting Low Emission Transport	Other	2021	2030	EBC / SCC / HCC	EBC / SCC / HCC / Developer Contributions / Transforming Cities Fund	Funded	£1 million - £10 million	Planning	Reduced vehicle emissions	Mobility hubs completed	In 2024, a total of 45 Beryl bikes were deployed across Eastleigh, including Eastleigh Town Centre, Eastleigh Train Station, Fleming Park, Shakespeare Road, Somers Way, Tinning Way, Bosville and Chesnut Avenue, completed with information totems, seating, and planters, with the remainder set to be deployed in 2025. See TR2.2	Eastleigh Travel Hub | Transport and roads | Hampshire County Council
BIFOH H1	Improve traffic flow and increase facilities for active travel along Bishopstoke Road	Transport Planning and Infrastructure	Other	2019	2030	EBC / HCC	EBC / HCC / Transforming Cities / New Homes Bonus	Funded	£1 million - £10 million	Planning	Reduced vehicle emissions	Bus priority scheme in place	Currently on designing stage. Looking for delivery in 2026/27	-

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BIFOH H2	Consider potential locations and funding sources to install electric vehicle charging points	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2020	2030	EBC / External Partners / Developers	EBC / External Partners / Developers	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Increase number of available EV charging points	-	Dependent on local funding being available.
BIFOH H3	Use the development at Horton Heath (OHH) as an opportunity to promote sustainable practices	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2019	2030	EBC	EBC	Funded		Implementation	Reduced vehicle emissions	Maximise sustainable initiatives implemented in development		One Horton Heath (OHH) team advised via planning applications feedback. Provision for people who walk and cycle are improving as a result.
HEWE B1	Investigate expanding Co-Wheels electric vehicle locations to Botley	Alternatives to private vehicle use	Car Clubs	2020	2030	EBC / External Partners	EBC / External Partners	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Add 1 new Co-Wheels location	Work in progress - The new contract will enable LAC to pump prime new locations across the Borough	Dependent on local funding being available.
HEWE B2	Consider potential locations and funding sources to install electric vehicle charging points	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2020	2030	EBC / External Partners / Developers	EBC / External Partners / Developers	Not Funded	£10k - 50k	Implementation	Reduced vehicle emissions	Increase number of available EV charging points	-	Dependent on local funding being available.
HEWE B3	Delivery of Botley Bypass scheme	Transport Planning and Infrastructure	Other	2012	2028	HCC	HCC	Funded	> £10 million	Implementation	Reduced vehicle emissions	Completion of bypass	Work on delivering this scheme is ongoing by HCC. HCC leading - delivery in 2027/2028	-
HEWE B4	Following completion of Botley Bypass, reduce HGVs using High Street	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management,	2012	2028	EBC / HCC	EBC / HCC	Not Funded		Planning	Reduced vehicle emissions	Reduce number of HGVs using Botley High Street	-	Requires completion of measure HEWEB3.

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			Selective vehicle priority, bus priority, high vehicle occupancy lane											
BHH1.1	Install new continuous analyser to monitor NO2 in the AQMA	Other	Other	2020	2030	EBC	EBC	Funded	£10k - 50k	Planning	-	New site installed	Work in progress	Dependent on local funding being available.
BHH3	Liaise with neighbouring authorities on their activities on the A27	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	2020	2030	EBC / FBC / SCC	EBC / FBC / SCC	Funded		Planning	-	Information sharing	-	-
BHH5	Investigate expanding Co-Wheels electric vehicle locations to the local area	Alternatives to private vehicle use	Car Clubs	2020	2030	EBC / External Partners	EBC / External Partners	Not Funded	£10k - 50k	Planning	Reduced vehicle emissions	Add 1 new Co-Wheels location	Work in progress - The new contract will enable LAC to pump prime new locations across the Borough	Dependent on local funding being available.
BHH6	Engage with HCC on the Hamble Lane improvement scheme to ensure it supports our objectives	Traffic Management	UTC, Congestion management, traffic reduction	2012	2030	HCC	EBC / HCC	Not Funded		Implementation	Reduced vehicle emissions	Completion of scheme	-	Scheme is on hold while funding is identified.
BHH7	Engage with HE on the M3 Junction 8 / Windhover Roundabout improvements to ensure our objectives are supported	Traffic Management	UTC, Congestion management, traffic reduction	2012	2030	HE	EBC / HE	Funded		Implementation	Reduced vehicle emissions	Completion of scheme	-	Affected by lack of resources
BHH8	Consider potential locations and funding sources to install electric vehicle	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles,	2020	2030	EBC / External Partners / Developers	EBC / External Partners / Developers	Not Funded	£10k - 50k	In progress / implementing	Reduced vehicle emissions	Increase number of available EV charging points	-	In 2023, 22kW charge points installed at New Road car park, Netley and 75kW at Hamble Square.

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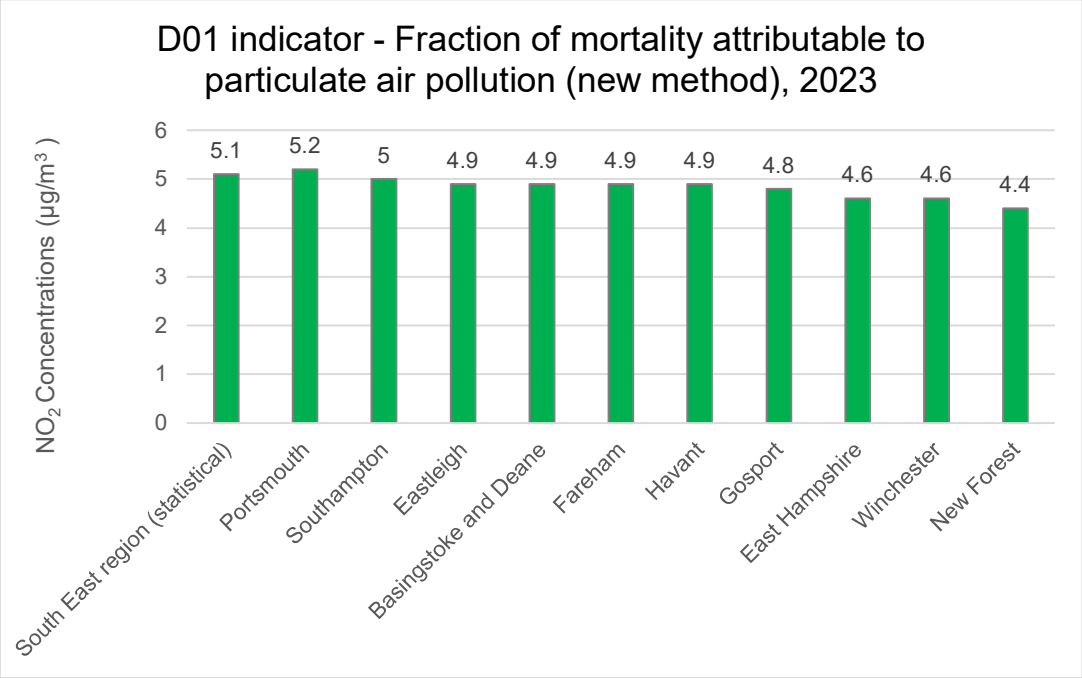
	charging points		EV recharging, Gas fuel recharging											
BHH9	Improve air circulation along Hamble Lane and the A27 through the management of trees	Other	Other	2020	2025	EBC / HCC	EBC / HCC	Not Funded		Planning	Reduced pollutant concentrations	Completion of scheme	Overall progress achieved through fleet evolution and diurnal pattern change (working from home)	

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.

The Public Health Outcomes Framework[13] contains the indicator 'D01 – Fraction of mortality attributable to particulate air pollution (new method)'. For Eastleigh the most recent available summary for this indicator was 2023 and is slightly below the indicator estimated within nearby cities of Portsmouth and Southampton and slightly higher than East Hampshire, Winchester and New Forest (see Figure 2-1.)

Figure 2-1. Public Health profiles – Fraction of mortality attributable to particulate air pollution (new method, 2023)



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

[13] Public Health Outcomes Framework - at a glance summary

Eastleigh Borough Council is taking the following measures to address $PM_{2.5}$:

- The Council established particulates monitoring in Southampton Road in February 2020, which includes $PM_{2.5}$ in addition to PM_{10}. The annual mean for 2024 was 8.4µg/m^3, representing a slight increase from the previous reported data in 2023 (6.4µg/m^3). However, it is important to highlight that annualization was conducted for 2023 due to low data capture. This value is below the environmental target for fine particulate matter (10 µg/m^3 annual mean not to be exceeded by any relevant monitoring station by 2040).
- The installation of one Earthsense Zephyr monitor in Hedge End and one Hamble School provides supplementary data in relation $PM_{2.5}$ concentrations, as well as other pollutants. Data analysis indicated an annual average of 6µg/m^3, which is below the UK annual mean target of 10µg/m^3 by 2040; however, this figure is used as indicative only as this monitoring equipment does not meet the Defra QC/QA standards.
- In collaboration with neighbouring authorities and The Environment Centre (tEC), and funded by DEFRA Grant 2019-2020 (Measure HS3, see Table 2.4), the solid fuel burner awareness campaign was dedicated to specifically target solid fuel burning, as the biggest source of $PM_{2.5}$, aiming to directly reduce emissions of this pollutant. See Section 2.2.
- Most measures outlined in the Air Quality Action Plan 2020-2025 target vehicle emissions, which are the primary source of nitrogen dioxide (NO_2) and the reason for all Air Quality Management Area (AQMA) declarations within the Borough. While focused on NO_2, these measures are also expected to contribute to reductions in $PM_{2.5}$, which is likewise emitted by road transport. The listed actions are aligned with those identified in the LAQM Technical Guidance (TG22) action toolbox as effective in reducing $PM_{2.5}$ emissions.
- In addition, any work based around reducing exposure to air pollution will have a positive influence on public health, including reducing effects associated with $PM_{2.5}$. Example measures from Table 2.4.
- There are no Smoke Control Areas in the borough.

A summary of the progress on measures to improve air quality within Eastleigh Borough are presented in following Table 2.5:

Table 2.5 – Progress on Measures to Improve Air Quality

Group	Measure No.	Measure Summary
Environment	ENV3	Promote the use of electric vehicles
Transport	TR2.1	Improve and extend the walking network
	TR2.2	Improve and extend the cycle network
	TR4.1	Improve bus services
	TR4.2	Improve rail services
	TR4.3	Engage non-busses companies to explore upgrade options
	TR5.1	Low emission taxis
	TR5.2	Taxi licensing conditions
	TR6	Promote and expand car club
	TR7	Bicycle hire schemes
	TR10	Highways improvement schemes
Health & Social Policy	HS2.1	School travel planning
Housing	HOU1.2	Resident parking policies
Economy & Regeneration	EC1.1	EBC travel planning
	EC1.4	Upgrade EBC fleet to low emission vehicles
	EC2.1	Workplace travel planning
	EC2.2	ECO Stars fleet recognition scheme
	EC3	Support and encourage flexible working
Local Area: Chandler's Ford & Hiltingbury	CFH3	Electric vehicle charging points
	CFH4	Expand car club locations
Local Area: Eastleigh	ELAC4.1	Maintain elements of pedestrianisation around Town Centre – in progress via UKSPF
	ELAC5	Electric vehicle charging points - completed
	ELAC5.2	Encourage uptake of pilot on street charging points and monitor their use – in progress
	ELAC6	Continue to seek approval and funding for the Chickenhall Lane Link Road – depending of funding
	ELAC7	Improve and extend the cycle network in town centre - completed
	ELAC8	Create two mobility hubs to offer multi-modal transport options and facilities at key locations in Eastleigh – in progress
Local Area: Bishopstoke, Fair Oak & Horton Heath	BIFOHH 1	Improve traffic flow for Bishopstoke Road – currently on design stage. To be completed in 2026/27
	BIFOHH 2	Electric vehicle charging points
	BIFOHH 3	Promote sustainable practices at OHH – advised via planning application.
Local Area: Hedge End, West End & Botley	HEWEB1	Expand car club locations – in progress
	HEWEB2	Electric vehicle charging points – in progress
	HEWEB3	Delivery of Botley bypass scheme – work in progress. To be completed by 2027/28
	HEWEB4	Reduce HGVs using High Street – requires completion of HEWEB3
	BHH1.1	New monitoring equipment – subject to funding

Local Area: Bursledon, Hamble-le-Rice & Hound	BHH3	Liaison with neighbouring authorities for A27 works
	BHH4.1	Railway station improvements - completed
	BHH5	Expand car club locations – in progress
	BHH6	Hamble Lane highways improvements – subject to funding
	BHH7	Junction 8 / Windhover highways improvements – lack of resources
	BHH8	Electric vehicle charging points – in progress
	BHH9	Improve air circulation along Hamble Lane and A27 – overall progress due to fleet evolution and WFH patterns

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

This section sets out the monitoring undertaken within 2024 by Eastleigh Borough Council 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

Eastleigh Borough Council undertook automatic (continuous) monitoring at 3 sites during 2024 Table A.1 in Appendix A shows the details of the automatic monitoring sites. The Eastleigh Borough Council - Air Quality monitoring service page presents automatic monitoring results for Eastleigh Borough Council, 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

Eastleigh Borough Council undertook non-automatic (i.e. passive) monitoring of NO_2 at 55 sites during 2024. 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 bias 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 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_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.

The annual mean objective was not exceeded at any monitoring locations across the Borough during 2024, and follows a general downward trend in concentration of NO_2 noted at relevant Automatic Urban and Rural Network (AURN) sites managed by Defra.

The following section discusses concentrations of NO_2 and trends at key monitoring locations within each AQMA. To evaluate long-term trends, consideration was given to those locations with at least 5 years of monitoring data. It is important to highlight that external factors, such as weather conditions, could have an impact in the obtained monitoring data.

AQMA No.1 (Eastleigh)

The highest annual mean NO_2 concentration within AQMA No.1 was 32.3µg/m^3 at SR1 (Southampton Road), indicative of 20% below the national air quality objective of 40µg/m^3.

When comparing the 2024 monitoring results with the previous year (2023), it is apparent that all monitoring locations demonstrate a decrease on the annual mean NO_2 concentrations, with exception of the monitoring site at Chestnut Avenue, with a slight 1% increase from 18.4µg/m^3 to 18.6µg/m^3, though the absolute value remains well below the UK annual mean objective.

The 3-year trend analysis of 2022–2024 data demonstrates a consistent decline in NO_2 concentrations across all monitoring locations. The most significant reduction of approximately 10% was observed at Bishopstoke Road, Leigh Road/Pluto Road,

Southampton Road 2, and The Point. In contrast, the decline has been more modest, less than 5% recorded at Chestnut Avenue, Leigh Road/J13, Southampton Road 1, and Woodside Avenue.

Previously, our 3-year trend analysis had to account for the temporary effects of the Covid-19 pandemic. However, the current data reflect more stable, long-term changes, including a shift in travel patterns due to increased uptake of home working and a continued rise in the number of zero-emissions vehicles and fleet upgrades.

The 5-year trend in NO_2 concentrations across the Borough shows a more pronounced reduction than the three-year trend. Several locations, including Leigh Road/Pluto Road, Southampton Road (continuous analyser), Southampton Road 2, and The Point, have recorded declines of approximately 15% in NO_2 levels. In contrast, other sites such as Southampton Road 1 have shown minimal improvement, with a reduction margin of only around 1%. These results are illustrated in Figure A. 1

Eastleigh Borough Council will continue to monitor these trends with a view to considering the revocation of AQMA No.1 in future reviews, subject to sustained compliance with national air quality objectives.

AQMA No. 2 (M3)

Monitoring data from AQMA No. 2 demonstrates a consistent downward trend in NO_2 concentrations over the past five years. Recent measurements indicate levels at or below 20 µg/m³ across all monitoring locations, as shown in Figure A. 2.

It is noted that the diffusion tube located at Dove Dale recorded a 16% year-on-year increase in NO_2 concentrations—from 16.5 µg/m³ in 2023 to 19.1 µg/m³ in 2024. However, this remains well below the national annual mean objective of 40 µg/m³ and does not contradict the overall declining trend.

Following the recommendation for revocation outlined in the 2024 Annual Status Report (ASR), a consultation with the Council's is to be carried out in July 2025 for the revocation of AQMA No. 2. Subject to Cabinet approval, formal notification of the revocation will be submitted to Defra.

AQMA No. 3 (Hamble Lane)

Within the last five years, all monitoring locations within AQMA No. 3 have shown a downward trend in NO_2 concentrations. Reductions range from 15% to 23% at Bridge

Road, Bridge Road 2, Oakhill, Providence Hill 1 and 2; and from 8% to 11% at Hamble Lane, Hamble Lane 2, Oakhill 2, and Providence Hill 3.

As presented in Figure A. 3, the highest recorded NO_2 concentrations in this AQMA for 2024 are at Oakhill 2 (34.6 µg/m³) and Providence Hill 2 (29.3 µg/m³). Notably, both sites had exceeded the national annual objective of 40 µg/m³ in 2021.

Eastleigh Borough Council will continue to monitor these trends with a view to potentially revoking AQMA No. 3 in the future, subject to continued compliance.

AQMA No. 4 (High Street Botley)

Monitoring data for AQMA No. 4 (High Street, Botley) continues to show a downward trend in annual mean NO_2 concentrations. In 2024, the highest recorded level was 24.3 µg/m³, as illustrated in Figure A. 4, which is well below the national annual objective of 40 µg/m³.

As highlighted in the 2023 ASR appraisal, AQMA No. 4 meets the criteria for revocation, with all monitoring sites reporting concentrations significantly below the national objective. However, it became apparent that previous monitoring locations within this AQMA did not represent the worst-case scenario. Following internal discussions, it was agreed that additional confirmation was necessary before revocation could proceed.

A new diffusion tube monitoring location began at Mill Hill in September 2024. This site has been selected in accordance with Defra's Technical Guidance TG22 as a worst-case location due to its street canyon characteristics, which may promote pollutant accumulation.

Monitoring data from this site will be reviewed in the next ASR. Should results confirm ongoing compliance with the national air quality objectives, Eastleigh Borough Council will proceed with the revocation of AQMA No. 4.

All other non-AQMA areas

Based on 2024 data, the average annual mean NO_2 concentration across non-AQMA locations within Eastleigh Borough was 16.8 µg/m³, with the highest recorded level observed at Campbell Road, reaching 26.7 µg/m³.

As illustrated in Figure A. 5, NO_2 concentrations across the Borough have demonstrated a consistent downward trend over the past five years, indicating sustained improvement in air quality. The only exception is a 3% increase recorded at the Steele Close (ES2) monitoring location, where concentrations rose from 16.1 µg/m³ in 2023 to 16.6 µg/m³ in 2024. Despite this minor fluctuation, all concentrations remain well below the national

annual air quality objective of 40 µg/m³, and no significant deviation from the overall downward trend is anticipated.

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. No short-term (1-hour) exceedances were recorded during this period, further supporting the continued improvement of air quality across the Borough.

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 over the past five years with the national air quality objective of 40µg/m^3. No exceedances were recorded in 2024.

Figure A. 6 visually presents the annual mean PM_{10} trend at Eastleigh monitoring location (ES1) alongside data from nearby AURN reference stations. A 16% increase in PM_{10} concentrations was observed in 2024, rising from 13.7 µg/m³ in 2023 to 16.4 µg/m³. This level is comparable to concentrations recorded in 2020.

It is important to note that the 2023 annual mean was derived using an annualisation ratio of 0.85 (or 15% reduction) based on corresponding AURN sites. This was due to insufficient (slightly less than 75%) data capture. The period-specific values were 17.8 µg/m³ (January–March 2023) and 16.2 µg/m³ (April 2023–January 2024).

Due to a technical fault in the monitoring instrument, data from 2021 and 2022 were insufficient for annualization and inclusion in ARS to perform the trend analysis.

Given the data gaps and year-on-year fluctuations, no definitive long-term trend for PM_{10} at this location can be established at this stage.

Table A.7 in Appendix A compares ratified 5-year PM_{10} daily mean concentrations with the national objective of 50 µg/m³, not to be exceeded more than 35 times per year. In 2024, the Eastleigh automatic monitoring station at Southampton Road recorded only two exceedances of this threshold—both in January, with daily mean concentrations of 74.1 µg/m³ and 66.2 µg/m³, likely attributable to increased use of solid fuel use during the winter period. Despite these exceedances, the site remained fully compliant with the national daily mean objective for PM_{10}. No exceedances were recorded in previous years.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.8 and Figure A. 7 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations over the past five years. In 2024, the annual mean was recorded at 8.3µg/m^3. As mentioned in the previous section, due to a technical fault in the instrument, data for 2021 and 2022 was not included in this report.

For 2023 data, an annualisation ratio of 0.77 was applied due to incomplete data capture, which ranged between 51.1% (during January to March 2023) and 75.5% (during April 2023 to January 2024). The partial dataset for 2024 consisted of average concentrations of 8.6 µg/m³ (January–March) and 8.1 µg/m³ (April 2023–January 2024).

Overall, when comparing the unannualised data, $PM_{2.5}$ concentrations have remained relatively stable, with no significant year-on-year fluctuations observed,

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)
ES1	Southampton Road Analyser	Roadside	445495	118237	NO_2, PM_{10}, $PM_{2.5}$	Yes	Yes, Eastleigh AQMA (1)	Chemiluminescent; Optical	17.6	1.6	1.9
ES2	Steele Close	Urban Background	443959	119673	NO_2	No	N/A	Chemiluminescent	16.0	2.1	2.0
ES3	The Point	Roadside	445310	119148	NO_2	Yes	Yes, Eastleigh AQMA (1)	Chemiluminescent	42.8	8.1	2.3

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)
AL	Allington Lane	Roadside	445908	115544	NO_2	No	55.7	2.6	No	2.4
AR	Ashdown Road	Urban Background	443291	122842	NO_2	No	9.6	1.3	No	1.5
BDG2	Bridge Road 2	Roadside	448914	110033	NO_2	Yes, Hamble Lane AQMA (3)	32.2	1.1	No	2.3
BDG	Bridge Road	Roadside	449099	109864	NO_2	Yes, Hamble Lane AQMA (3)	2.2	1.7	No	2.5
BEL	Belmont Road	Urban Background	443778	119303	NO_2	Yes, M3 AQMA (2)	10.7	2.1	No	2.2
BOT	Botley Road	Roadside	449634	117382	NO_2	No	4.5	1.9	No	2.4
BR2	Bishopstoke Road 2	Roadside	446051	119171	NO_2	No	0.3	2.2	No	2.1
BR	Bishopstoke Road	Roadside	446604	119149	NO_2	No	11.5	1.8	No	2.4
CA	Chestnut Avenue	Roadside	445339	118111	NO_2	No	3.8	2.7	No	2.4
CC	Chestnut Close	Roadside	443054	118962	NO_2	No	9.9	1.5	No	2.1
CR3	Campbell Road 3	Industrial	446117	117846	NO_2	No	2.7	2.7	No	2.2
CR4	Campbell Road 4	Industrial	445841	118086	NO_2	No	19.0	0.5	No	1.9

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)
CR	Campbell Road	Industrial	445750	118111	NO_2	No	12.9	2.2	No	2.1
DD (A)	Dove Dale	Urban Background	443559	118751	NO_2	Yes, M3 AQMA (2)	7.7	2.9	No	2.7
FOR	Fair Oak Road	Roadside	447427	118780	NO_2	No	5.8	5.6	No	2.5
FORSL	Fair Oak Road/Sandy Lane	Roadside	448788	118553	NO_2	No	33.0	1.0	No	1.5
GR	Grange Road	Roadside	449867	113250	NO_2	No	10.0	1.7	No	2.5
HCF	Hamble Corner Fruit Farm	Roadside	447378	108836	NO_2	No	86.8	0.6	No	2.2
HG	Hadleigh Gardens	Urban Background	445347	120367	NO_2	No	5.9	1.9	No	2.7
HL2	Hamble Lane 2 (Tesco)	Roadside	447745	110478	NO_2	Yes, Hamble Lane AQMA (3)	9.9	1.4	No	2.3
HL4	Hamble Lane 4	Roadside	447357	108543	NO_2	No	25.0	3.0	No	2.2
HL	Hamble Lane (Woodlands)	Roadside	447717	110359	NO_2	Yes, Hamble Lane AQMA (3)	38.0	1.7	No	2.3
HPO	Hound Parish Office	Roadside	445715	108448	NO_2	No	0.0	6.0	No	2.2
HPS	Hamble Primary School	Roadside	447430	107552	NO_2	No	60.0	0.6	No	2.1

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)
HSB2A	High Street Botley 2 (A)	Roadside	451184	113030	NO_2	Yes, High Street Botley AQMA (4)	5.7	1.3	No	2.5
HSB	High Street Botley	Roadside	451431	113025	NO_2	Yes, High Street Botley AQMA (4)	4.8	2.1	No	2.3
JW	Jukes Walk	Roadside	447690	114912	NO_2	No	19.0	1.6	No	1.5
KCA	Kings Copse Avenue	Roadside	449935	113146	NO_2	No	0.5	1.6	No	2.4
LR13	Leigh Road/J13	Roadside	443842	119526	NO_2	Yes, Eastleigh AQMA (1)	7.5	1.7	No	2.5
LRPR	leigh road/Pluto Road	Roadside	444864	119174	NO_2	Yes, Eastleigh AQMA (1)	7.3	1.7	No	2.2
MC	Medina Close	Urban Background	444239	120060	NO_2	Yes, M3 AQMA (2)	7.6	1.5	No	1.5
MH	Mill Hill	Roadside	451459	113016	NO_2	Yes, High Street Botley AQMA (4)	15.0	1.7	No	2.5
MS	Mill Street	Roadside	445707	119619	NO_2	No	2.1	1.5	No	2.8
NH	Nuffield Hospital	Urban Background	445121	122183	NO_2	No	10.1	1.0	No	2.2
OH2	Oakhill 2 (Bridge)	Roadside	448736	110213	NO_2	Yes, Hamble Lane AQMA (3)	4.6	1.2	No	2.3

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)
OH	Oakhill (Prov)	Roadside	448653	110280	NO_2	Yes, Hamble Lane AQMA (3)	9.4	1.9	No	2.3
OX	Oxburgh Close	Urban Background	444543	120187	NO_2	No	11.4	1.9	No	2.3
PA	Passfield Avenue	Roadside	444340	118696	NO_2	No	24.7	1.4	No	1.5
PAV	Pavilion Road	Roadside	450061	113452	NO_2	No	12.8	2.0	No	1.9
PC(A)	Porteous Crescent (A)	Urban Background	444656	120775	NO_2	Yes, M3 AQMA (2)	13.8	1.0	No	2.5
PH1	Providence Hill 1	Roadside	448237	110610	NO_2	Yes, Hamble Lane AQMA (3)	14.8	3.4	No	2.3
PH2	Providence Hill 2	Roadside	448330	110532	NO_2	Yes, Hamble Lane AQMA (3)	2.9	2.4	No	2.3
PH3	Providence Hill 3	Roadside	448249	110627	NO_2	Yes, Hamble Lane AQMA (3)	29.2	1.1	No	2.3
SC(A), SC(B), SC(C)	Steele Close (C)	Urban Background	443959	119673	NO_2	No	16.0	2.1	Yes	2.0
SR1	Southampton Road 1	Roadside	445450	118144	NO_2	Yes, Eastleigh AQMA (1)	4.3	2.0	No	2.0
SR2	Southampton Road 2	Roadside	445651	118634	NO_2	Yes, Eastleigh AQMA (1)	5.2	1.7	No	2.4

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)
SRAN(A), SRAN(B), SRAN(C)	Southampton Road Analyser (C)	Roadside	445495	118237	NO_2	Yes, Eastleigh AQMA (1)	17.6	1.6	Yes	1.9
SSQ	Sparrow Square	Urban Background	443483	118612	NO_2	Yes, M3 AQMA (2)	9.0	1.7	No	2.6
SWA	Swaythling road	Roadside	446170	114603	NO_2	No	4.1	2.7	No	2.4
TP(A), TP(B), TP(C)	The Point (C)	Roadside	445310	119148	NO_2	Yes, Eastleigh AQMA (1)	42.8	8.1	Yes	2.3
TWY	Twyford Road	Roadside	445739	119856	NO_2	No	3.6	1.5	No	2.1
UNC	Upper Northam Close	Urban Background	448090	112635	NO_2	No	12.9	2.5	No	2.2
WA	Woodside Avenue	Roadside	444483	119443	NO_2	No	7.2	1.9	No	2.2
WSRB	Winchester Street Railway Bridge	Roadside	450815	114091	NO_2	No	32.7	0.3	No	2.3
WYV	Wyvern School	Roadside	449577	118165	NO_2	No	4.5	1.9	No	2.3

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
ES1	445495	118237	Roadside	99.5	99.5	26.3	-	28.2	25.7	24.3
ES2	443959	119673	Urban Background	97.0	97.0	19.1	19.8	19.2	16.1*	16.5
ES3	445310	119148	Roadside	99.5	99.5	20.0	22.6	21.5	19.1	17.1

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%).

*The data provided for monitored part of the year from 17/10/2023 to 3/01/2024

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
AL	445908	115544	Roadside	100.0	90.6	19.0	19.8	20.7	18.8	15.1
AR	443291	122842	Urban Background	100.0	92.5	8.0	8.1	8.0	6.6	6.4
BDG2	448914	110033	Roadside	100.0	100.0	36.3	34.9	35.5	29.8	28.5
BDG	449099	109864	Roadside	100.0	100.0	21.1	22.4	21.0	20.1	17.8
BEL	443778	119303	Urban Background	90.6	90.6	20.8	20.1	18.8	16.5	15.1
BOT	449634	117382	Roadside	92.5	92.5	27.6	28.0	27.3	23.9	21.7
BR2	446051	119171	Roadside	90.6	90.6	26.8	26.6	27.2	24.7	22.6
BR	446604	119149	Roadside	92.5	92.5	29.6	29.0	30.5	25.4	22.7
CA	445339	118111	Roadside	92.5	92.5	21.5	21.3	20.9	18.4	18.6
CC	443054	118962	Roadside	100.0	90.6	21.6	21.7	23.3	20.2	18.5
CR3	446117	117846	Industrial	100.0	100.0	13.8	15.9	14.3	13.0	11.7
CR4	445841	118086	Industrial	100.0	100.0	19.6	19.3	20.9	19.8	17.7

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CR	445750	118111	Industrial	100.0	100.0	32.2	27.3	30.3	29.6	26.7
DD (A)	443559	118751	Urban Background	90.6	75.0	22.0	22.7	20.6	16.5	19.1
FOR	447427	118780	Roadside	100.0	100.0	17.6	17.3	16.8	16.5	14.9
FORSL	448788	118553	Roadside	100.0	100.0	23.4	23.9	24.6	23.6	21.4
GR	449867	113250	Roadside	100.0	100.0	23.3	24.0	23.5	21.5	20.6
HCF	447378	108836	Roadside	81.1	81.1			25.4	23.5	22.3
HG	445347	120367	Urban Background	100.0	100.0	14.8	15.1	14.5	12.9	12.0
HL2	447745	110478	Roadside	100.0	100.0	38.2	29.6	33.6	29.5	27.9
HL4	447357	108543	Roadside	83.0	83.0	17.5	17.6	18.2	15.3	15.3
HL	447717	110359	Roadside	92.5	92.5	25.8	25.0	24.5	23.8	22.6
HPO	445715	108448	Roadside	100.0	100.0	14.8	16.1	16.2	17.1	13.2
HPS	447430	107552	Roadside	92.5	92.5	18.5	21.0	19.4	18.1	16.9
HSB2A	451184	113030	Roadside	100.0	100.0	22.6	24.7	25.3	22.6	20.3

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
HSB	451431	113025	Roadside	92.5	92.5	26.4	28.6	28.4	25.8	24.3
JW	447690	114912	Roadside	100.0	100.0	16.5	17.4	18.6	16.2	14.9
KCA	449935	113146	Roadside	100.0	100.0	24.5	26.3	25.1	23.0	22.0
LR13	443842	119526	Roadside	100.0	100.0	30.7	32.5	32.9	29.6	29.2
LRPR	444864	119174	Roadside	83.0	83.0	23.9	24.8	24.6	20.1	19.7
MC	444239	120060	Urban Background	100.0	100.0	19.4	20.1	18.8	16.0	15.5
MH	451459	113016	Roadside	34.0	34.0					25.0
MS	445707	119619	Roadside	100.0	100.0	22.9	24.2	25.0	22.4	21.3
NH	445121	122183	Urban Background	100.0	100.0	22.9	30.8	30.6	15.3	13.9
OH2	448736	110213	Roadside	100.0	100.0	39.7	**41.5**	38.6	33.7	34.6
OH	448653	110280	Roadside	92.5	92.5	29.4	30.8	30.6	27.1	22.8
OX	444543	120187	Urban Background	100.0	100.0	15.8	15.3	13.9	12.1	12.0
PA	444340	118696	Roadside	92.5	84.9	21.0	22.1	21.5	20.3	18.5

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
PAV	450061	113452	Roadside	92.5	92.5			16.4	11.2	11.9
PC(A)	444656	120775	Urban Background	100.0	90.6	17.8	19.5	18.1	15.4	15.2
PH1	448237	110610	Roadside	100.0	100.0	25.0	26.6	26.9	23.9	21.3
PH2	448330	110532	Roadside	100.0	92.5	35.7	**40.1**	37.5	29.6	30.5
PH3	448249	110627	Roadside	100.0	100.0	23.1	22.2	23.3	20.6	19.5
SC(A), SC(B), SC(C)	443959	119673	Urban Background	100.0	100.0	18.0	18.7	18.6	15.9	15.6
SR1	445450	118144	Roadside	100.0	100.0	33.1	28.9	36.3	32.4	32.3
SR2	445651	118634	Roadside	92.5	92.5	31.7	36.1	34.2	30.6	28.3
SRAN(A), SRAN(B), SRAN(C)	445495	118237	Roadside	100.0	100.0	29.4	33.1	28.9	26.7	24.7
SSQ	443483	118612	Urban Background	100.0	100.0	20.1	20.5	19.7	18.4	16.7
SWA	446170	114603	Roadside	90.6	90.6	24.1	23.6	24.5	21.7	19.6
TP(A), TP(B), TP(C)	445310	119148	Roadside	100.0	100.0	18.6	20.3	19.7	17.4	16.2

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
TWY	445739	119856	Roadside	84.9	84.9	22.5	22.4	22.2	20.6	19.0
UNC	448090	112635	Urban Background	90.6	90.6	19.4	19.0	18.6	18.3	15.3
WA	444483	119443	Roadside	100.0	83.0	26.0	26.6	26.6	24.7	23.3
WSRB	450815	114091	Roadside	66.0	66.0				11.8	11.4
WYV	449577	118165	Roadside	92.5	83.0	23.4	24.7	23.6	21.1	20.6

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 at AQMA No. 1 (Eastleigh)

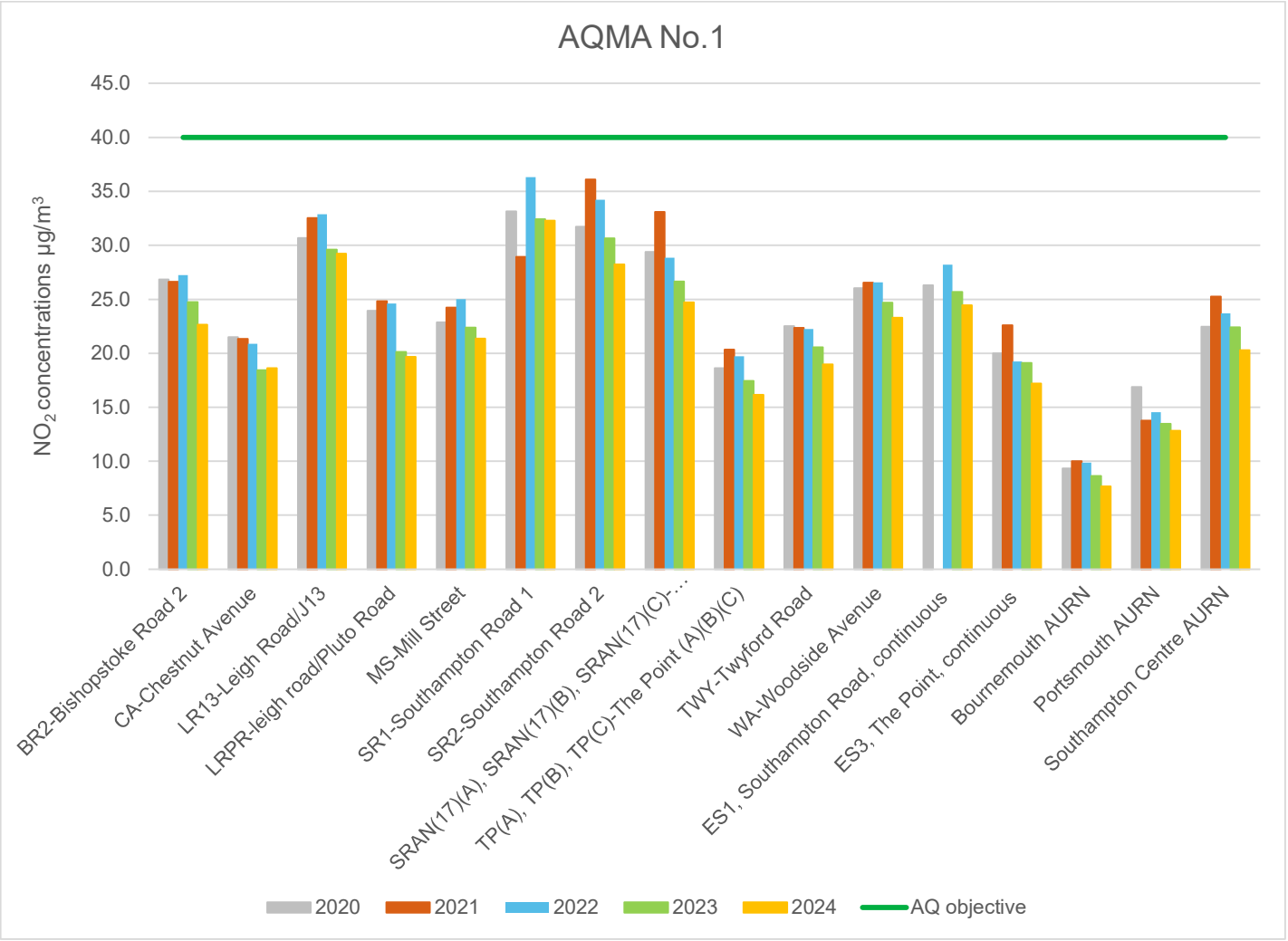


Figure A. 2 – Trends in Annual Mean NO_2 Concentrations at AQMA No. 2 (M3)

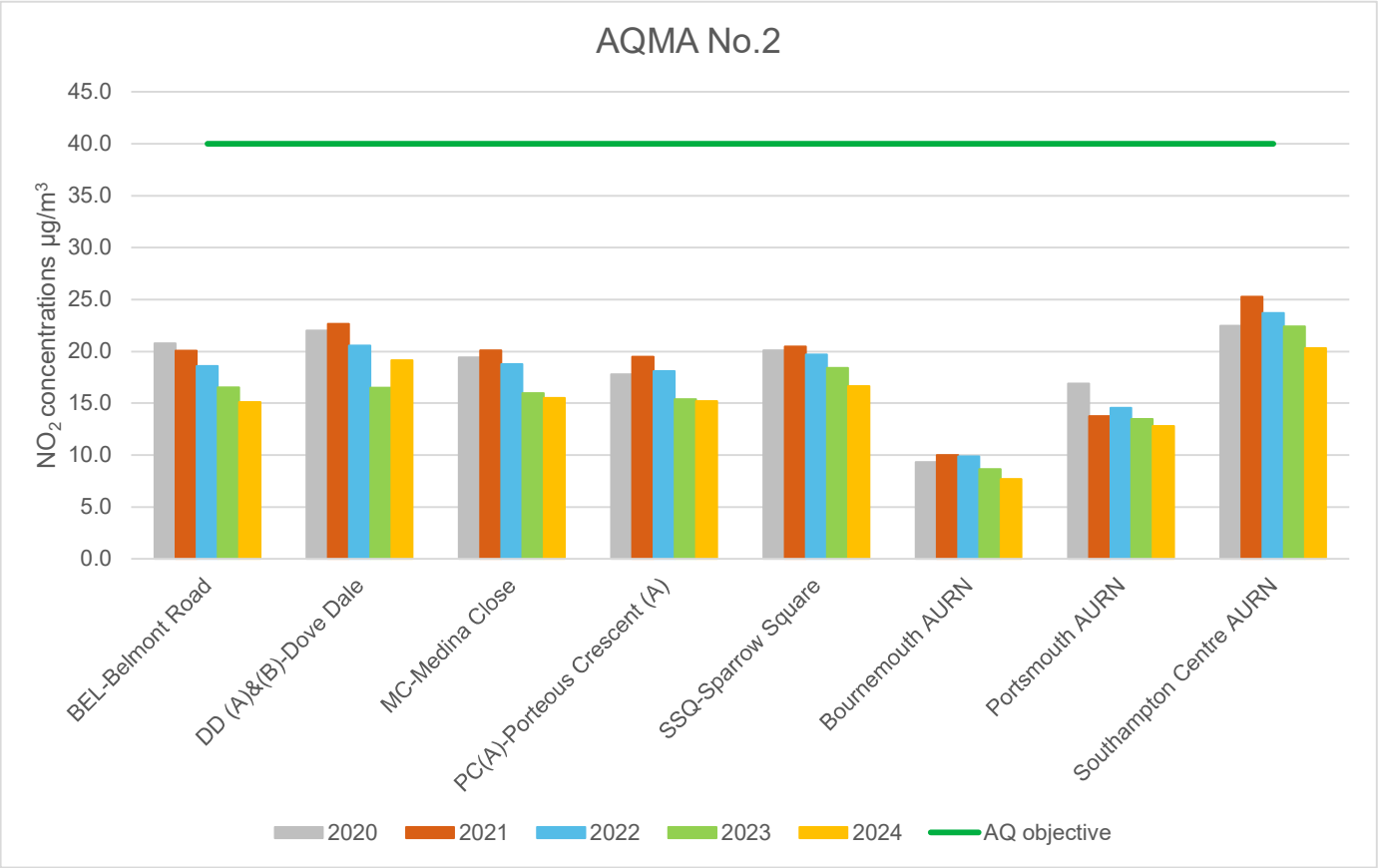


Figure A. 3 - Trends in Annual Mean NO_2 Concentrations at AQMA No. 3 (Hamble Lane)

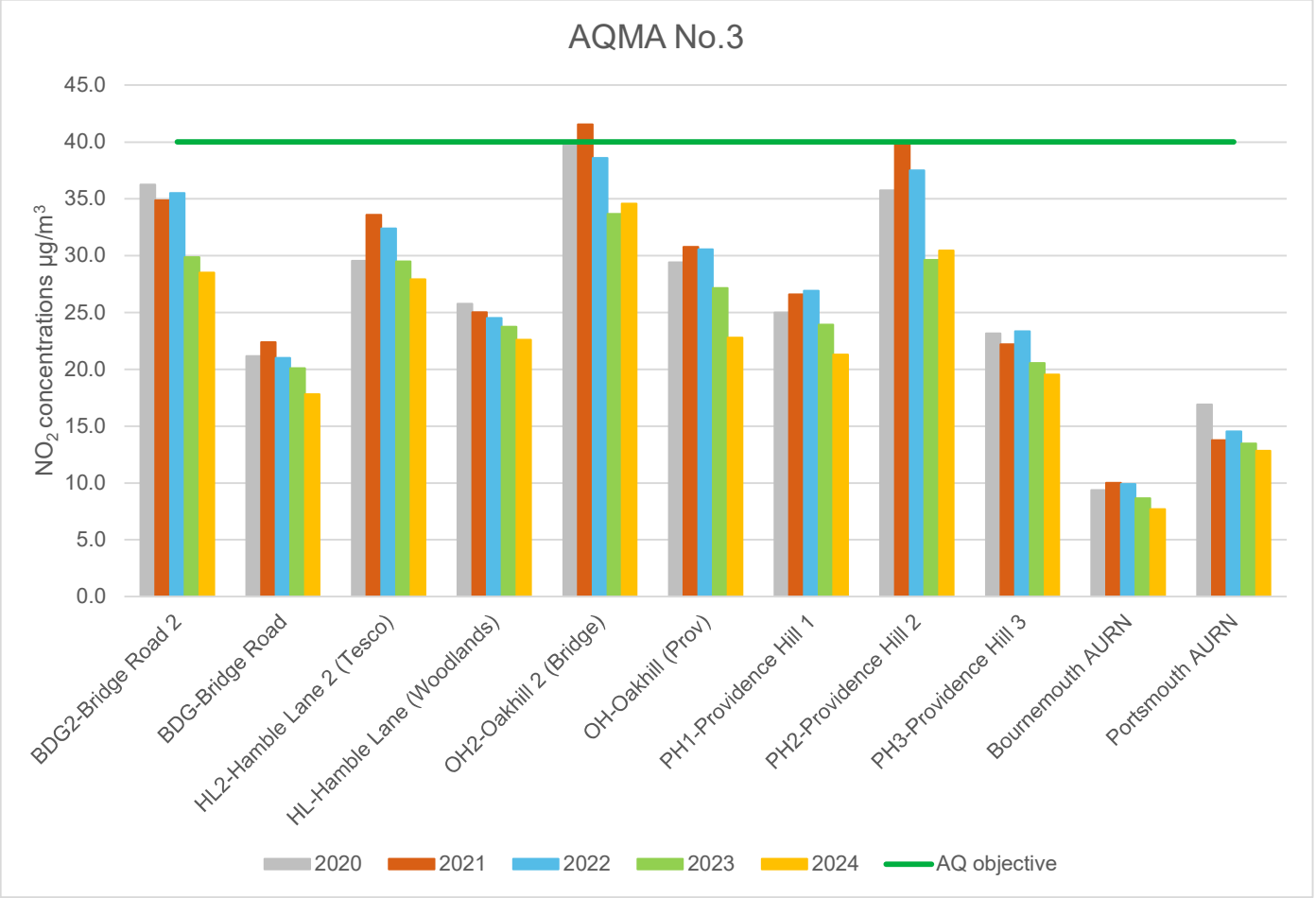


Figure A. 4 – Trends in Annual Mean NO_2 Concentrations at AQMA No. 4 (High Street Botley)

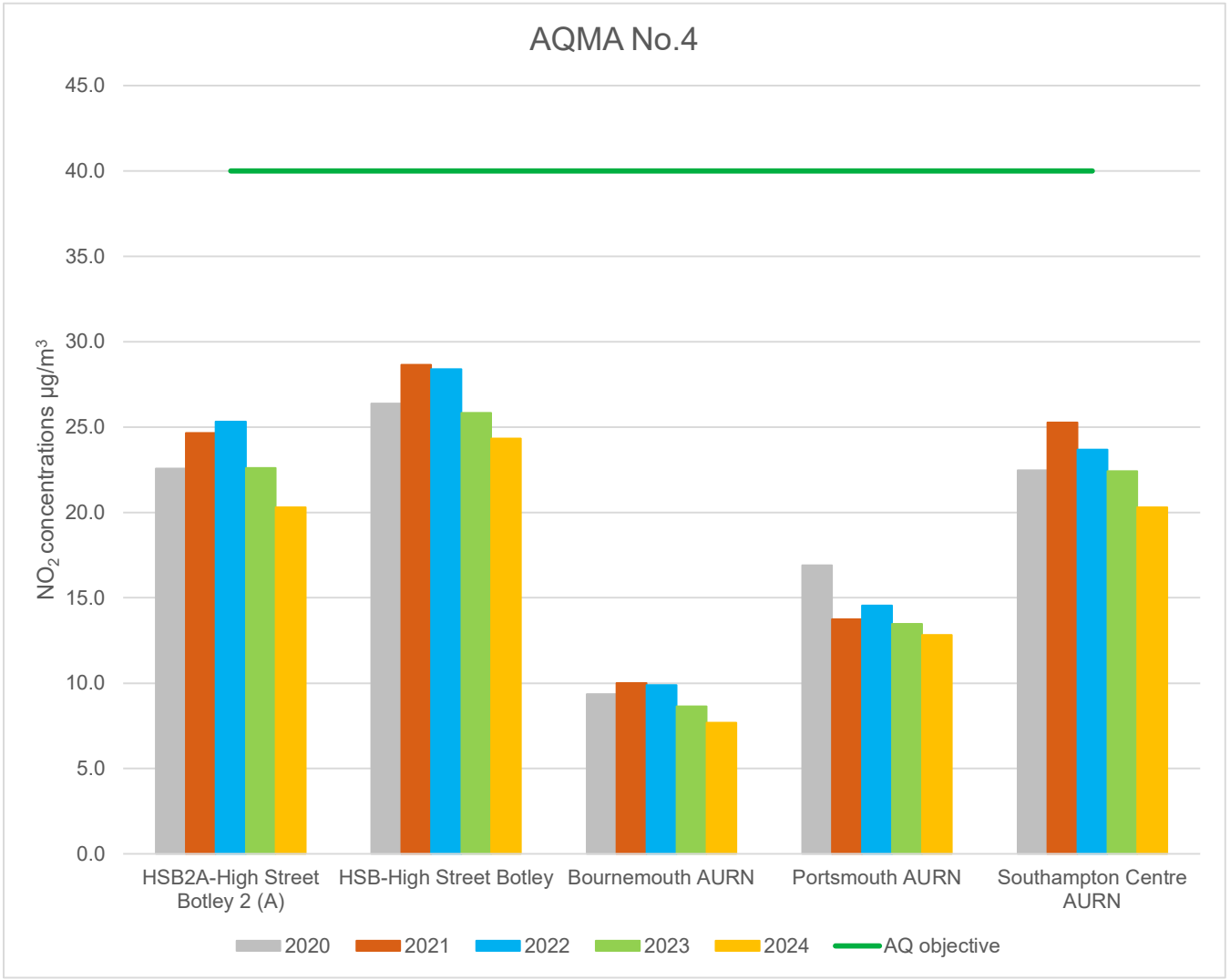


Figure A. 5 – Trends in Annual Mean NO_2 Concentrations across Eastleigh Borough (non-AQMA areas)

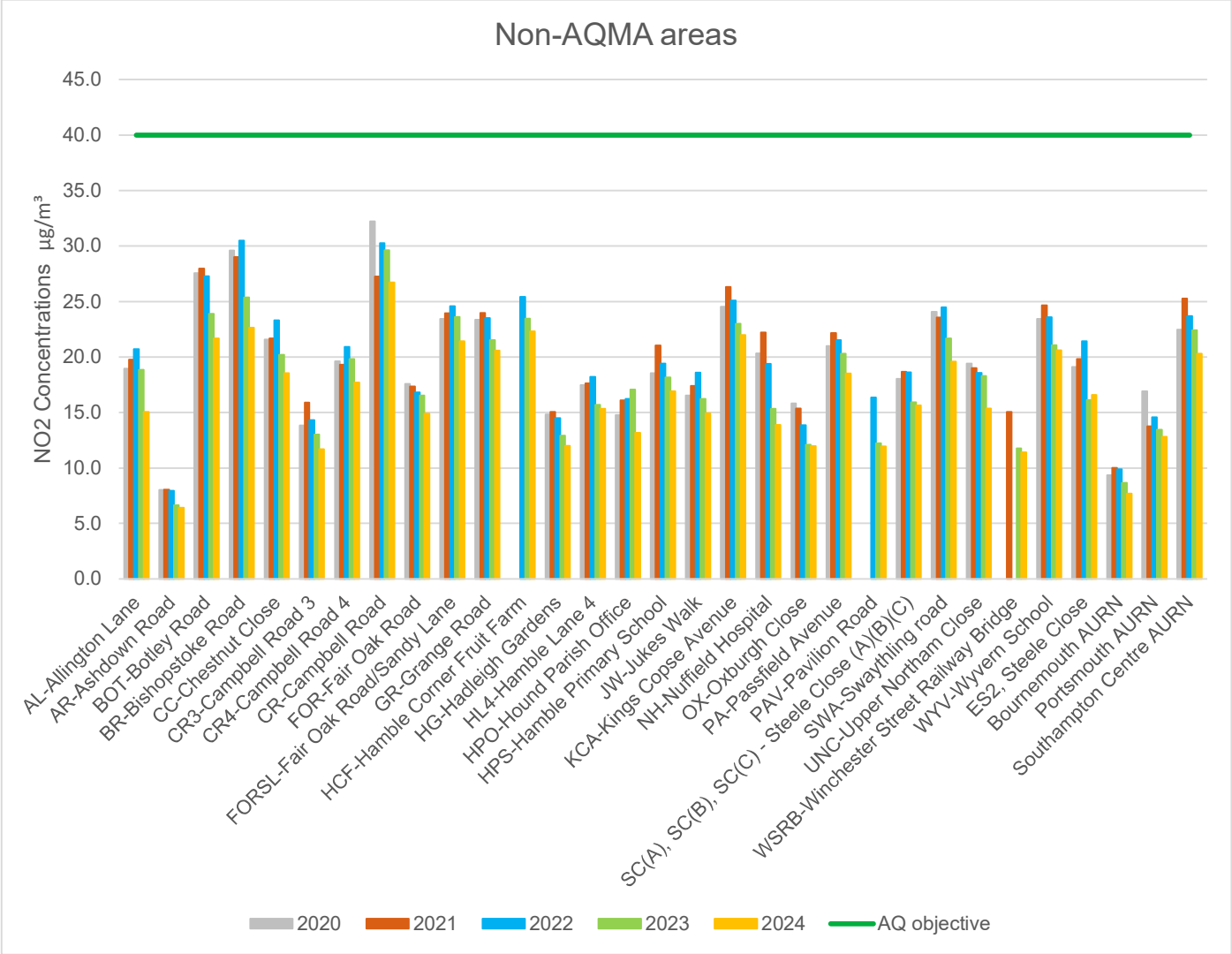


Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

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
ES1	445495	118237	Roadside	99.5	99.5	0	0	0	0	0
ES2	443959	119673	Urban Background	97.0	97.0	0	0	0	0	0
ES3	445310	119148	Roadside	99.5	99.5	0	0	0	0	0

Notes:

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

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/year) are shown in **bold**.

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

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

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

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

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(3)	2022(3)	2023(4)	2024
ES1	445495	118237	Roadside	99.8	99.8	16.9	-	-	13.7	16.4

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

Notes:

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

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%).

(3) Data from 2021 and 2022 has not been included in this report due to a technical fault in the instrument, resulting in poor data capture.

(4) An annualization ratio of 0.85 was applied for 2023 data, with values of 17.8 $\mu g/m^3$ (for period January/March 2023) and 16.2 $\mu g/m^3$ (for period April 2023 to January 2024).

Figure A. 6 – Trends in Annual Mean PM_{10} Concentrations

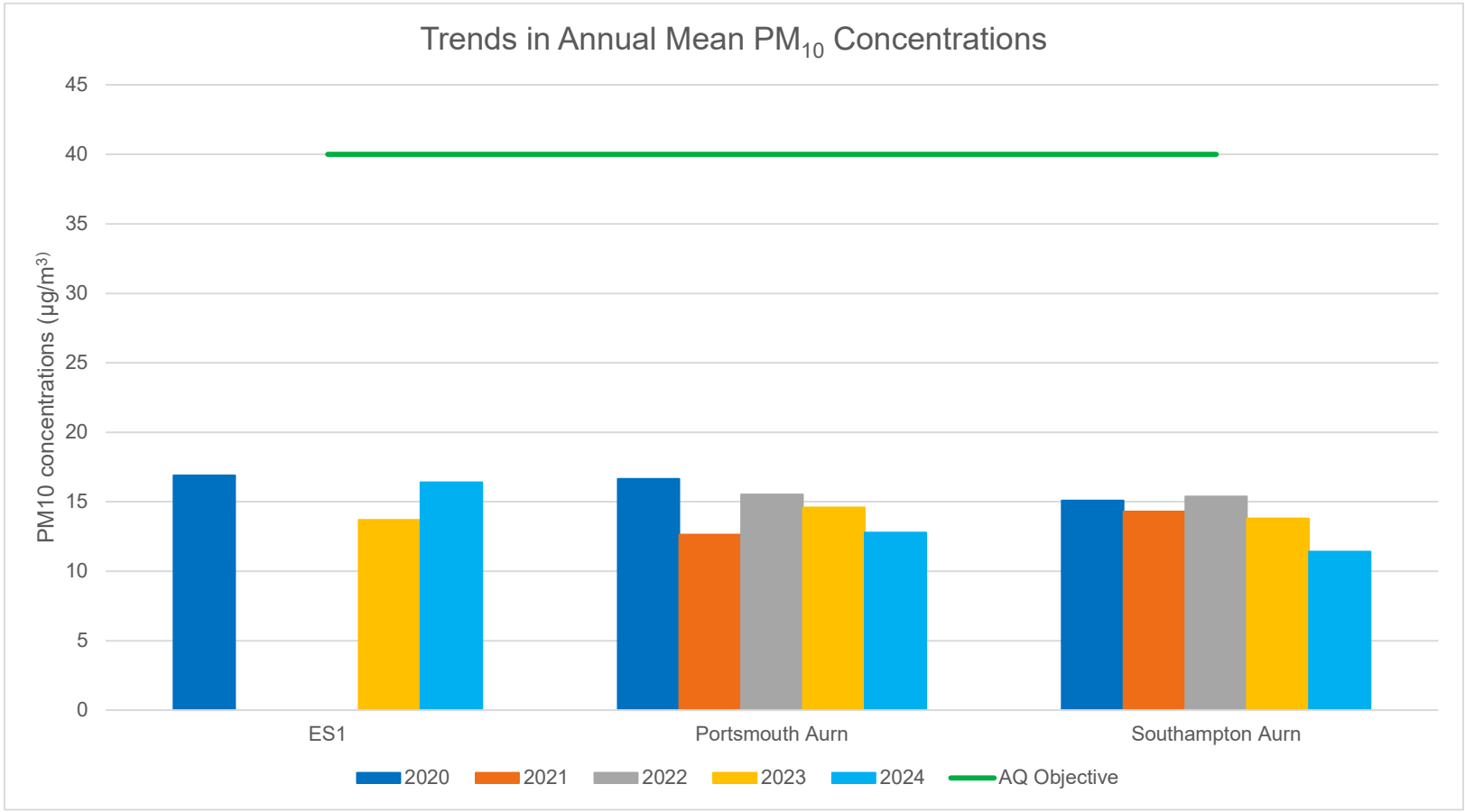


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

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
ES1	445495	118237	Roadside	99.8	99.8	0	-	0	0	2

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%).

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(3)	2022(3)	2023(4)	2024
ES1	445495	118237	Roadside	99.8	99.8	8.7	-	-	6.4	8.3

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^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.

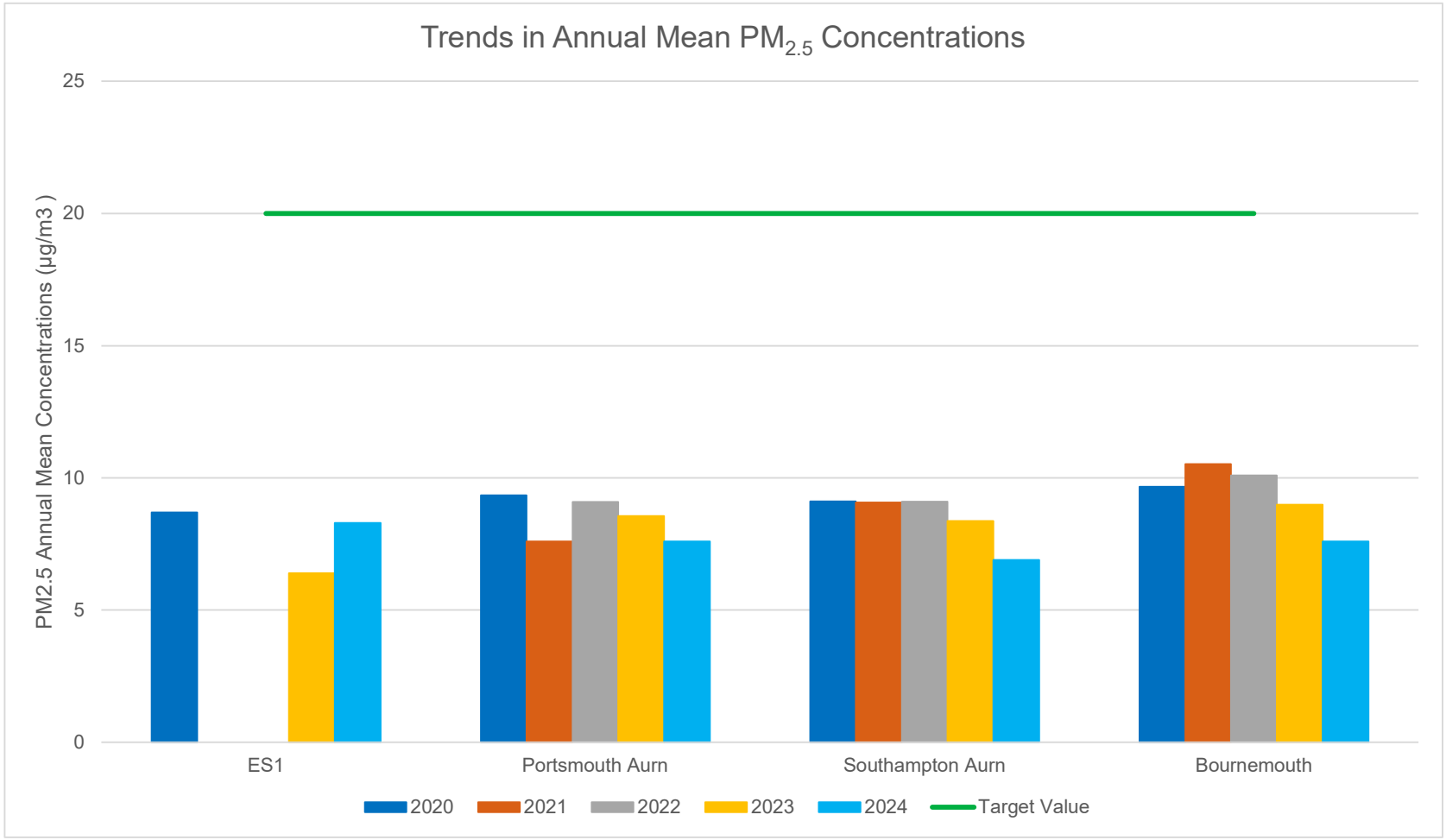
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(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) Data from 2021 and 2022 has not been included in this report due to a technical fault in the instrument, resulting in poor data capture.

(4) An annualization ratio of 0.85 was applied for 2023 data, with values of 17.8 µg/m^3 (for period January/March 2023) and 16.2 µg/m^3 (for period April 2023 to January 2024).

Figure A. 7 – Trends in Annual Mean $PM_{2.5}$ Concentrations



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 <(x.x)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
AL	445908	115544	20.5	24.9	20.1	16.3	18.1	15.1	20.0	16.5	14.5	17.9	22.0	16.3	18.5	15.6		
AR	443291	122842	12.1	8.5	8.3	5.8	6.0	3.8	5.3	5.3	5.6	8.9	10.5	7.8	7.3	6.2		
BDG2	448914	110033	34.8	35.2	31.4	30.6	33.8	34.5	34.4	30.5	36.7	37.2	36.1	32.2	34.0	28.5		
BDG	449099	109864	25.5	24.5	21.9	19.5	19.6	18.2	19.6	18.1	18.6	22.5	24.8	21.3	21.2	17.8		
BEL	443778	119303	24.1	21.2	22.2	15.2	15.1	11.5	16.8		17.6	14.0	23.8	16.7	18.0	15.1		
BOT	449634	117382	29.3	31.5	26.8	23.1	25.2	24.9	24.1	23.0	27.3	22.9		25.8	25.8	21.7		
BR2	446051	119171	28.6	34.0	28.6	26.5	22.9	23.6	24.7		26.4	24.4	31.6	25.3	27.0	22.6		
BR	446604	119149	28.4	21.7		28.5	28.8	27.7	30.8	22.9	24.7	27.2	30.3	25.8	27.0	22.7		
CA	445339	118111	26.0	25.9	24.5	18.8	19.4	17.0		17.1	21.5	27.1	26.6	20.1	22.2	18.6		
CC	443054	118962	25.6	26.5	24.3	17.9	19.5	20.8	22.4	20.3	20.8	22.1	22.6	20.5	21.9	18.4		
CR3	446117	117846	19.4	15.9	14.6	11.2	11.0	11.4	11.0	12.3	14.0	14.1	16.7	15.3	13.9	11.7		
CR4	445841	118086	24.3	25.4	21.0	19.7	17.8	20.5	20.6	20.5	18.9	18.8	21.0	24.3	21.1	17.7		
CR	445750	118111	31.8	39.1	36.1	33.5	27.6	30.0	33.9	33.6	26.7	28.2	27.5	33.7	31.8	26.7		
DD (A)	443559	118751	27.3	26.4	21.3	21.3		24.9	38.8	16.9	23.1	19.7	26.7	22.3	24.4	20.5		
FOR	447427	118780	19.7	32.9	17.4	14.5	15.0	14.3	14.6	15.5	15.6	18.0	19.8	15.5	17.7	14.9		
FORS L	448788	118553	26.8	30.2	28.0	23.1	26.1	22.7	24.7	22.6	24.6	25.5	26.9	24.5	25.5	21.4		
GR	449867	113250	30.1	27.1	25.3	25.1	21.3	22.6	21.8	20.1	22.8	22.8	30.6	24.3	24.5	20.6		
HCF	447378	108836	27.7	28.1	25.3	28.5	25.7	28.9	28.5		24.9		26.7	21.5	26.6	22.3		
HG	445347	120367	19.2	20.1	16.1	12.6	10.7	9.1	12.5	10.6	12.2	15.9	18.6	13.7	14.3	12.0		
HL2	447745	110478	36.8	28.7	29.7	34.3	33.2	36.0	37.1	32.5	34.4	30.5	38.2	27.7	33.3	27.9		
HL4	447357	108543	21.5	21.0	16.5	16.6	16.4	15.3	16.6	15.9		19.4	23.3		18.3	15.3		
HL	447717	110359	30.6	34.8	26.8	28.1	24.3	26.4		24.6	24.1	21.0	28.7	26.5	26.9	22.6		
HPO	445715	108448	19.5	17.7	16.2	14.5	15.3	13.0	15.1	11.9	12.9	16.1	19.4	16.6	15.7	13.2		
HPS	447430	107552		23.3	20.8	22.0	20.3	21.8	17.6	18.6	17.8	18.5	21.8	18.8	20.1	16.9		
HSB2 A	451184	113030	27.3	25.2	24.9	21.1	24.0	21.3	23.2	22.0	23.7	27.1	30.7	19.5	24.2	20.3		
HSB	451431	113025	28.4	31.4	30.3		28.9	25.5	29.6	28.0	27.2	26.8	26.9	35.5	29.0	24.3		
JW	447690	114912	22.7	21.3	19.4	15.5	16.2	13.5	14.8	12.4	16.5	18.2	24.2	18.6	17.8	14.9		

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 <(x.x)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
KCA	449935	113146	28.7	29.6	26.7	25.5	25.3	21.3	23.0	20.2	29.1	28.2	30.9	25.5	26.2	22.0		
LR13	443842	119526	34.3	39.6	42.3	30.0	32.4	27.1	35.4	28.9	33.2	42.0	42.7	29.6	34.8	29.2		
LRPR	444864	119174	27.5	25.9	24.9	20.7			18.7	18.4	22.1	26.5	27.7	21.8	23.4	19.7		
MC	444239	120060	23.5	21.4	24.7	16.2	17.0	11.5	17.2	15.5	15.8	21.5	22.1	15.1	18.5	15.5		
MH	451459	113016									41.3	30.6	39.0	28.7	34.9	25.0		
MS	445707	119619	25.8	27.6	26.1	25.6	24.7	19.8	23.5	21.5	27.9	29.1	32.5	20.8	25.4	21.3		
NH	445121	122183	21.9	18.0	17.1	13.9	17.0	10.9	15.1	15.3	16.4	21.4	20.6	11.0	16.6	13.9		
OH2	448736	110213	40.2	46.6	40.9	42.8	39.9	43.9	42.7	35.2	41.7	38.7	44.2	37.2	41.2	34.6		
OH	448653	110280	32.6	30.1	27.4	28.1	23.6	22.3		25.0	21.9	29.2	33.9	24.3	27.1	22.8		
OX	444543	120187	19.3	18.4	15.5	12.3	12.7	9.7	12.4	12.1	12.8	13.5	17.9	14.6	14.3	12.0		
PA	444340	118696	38.6	23.5	22.4	18.7	21.2	14.7	20.1	16.6	20.2	25.5		37.4	23.5	19.8		
PAV	450061	113452		19.0	17.1	13.0	12.7	9.4	13.2	10.6	12.0	15.6	16.2	17.6	14.2	11.9		
PC(A)	444656	120775	22.7	20.8	22.2	16.6	16.8	10.8	18.0	12.9	16.6	22.0	19.7	14.2	17.8	14.9		
PH1	448237	110610	26.9	26.4	22.1	22.0	26.1	23.7	26.1	24.7	25.6	27.1	29.9	23.8	25.4	21.3		
PH2	448330	110532	37.9	40.8	40.7	19.7	33.6	31.3	36.7	36.5	33.8	37.3	36.2	34.2	34.9	29.3		
PH3	448249	110627	26.2	30.0	23.3	21.4	20.9	19.8	19.6	20.5	22.2	22.0	29.7	23.5	23.3	19.5		
SC(A)	443959	119673	23.4	21.8	24.2	17.2	18.2	11.0	17.9	14.6	15.8	23.1	20.8	16.2	-	-		Triplicate Site with SC(A), SC(B) and SC(C) - Annual data provided for SC(C) only
SC(B)	443959	119673	22.7	21.6	24.9	15.4	17.8	11.7	16.4	14.5	16.5	23.7	21.6	15.7	-	-		Triplicate Site with SC(A), SC(B) and SC(C) - Annual data provided for SC(C) only
SC(C)	443959	119673	24.0	22.1	24.8	17.1	17.9	11.5	17.4	14.5	15.9	21.9	20.9	15.9	18.6	15.7		Triplicate Site with SC(A), SC(B) and SC(C) - Annual data provided for SC(C) only
SR1	445450	118144	37.1	47.3	42.1	37.9	32.0	34.5	38.5	32.8	40.8	36.4	45.1	36.6	38.4	32.3		
SR2	445651	118634	35.9	36.3	39.1		31.3	27.5	32.0	28.7	32.2	35.9	40.8	30.3	33.6	28.3		
SRAN (A)	445495	118237	29.8	32.0	35.2	28.3	25.6	24.2	28.8	26.6	26.4	31.2	34.2	28.3	-	-		Triplicate Site with SRAN(A), SRAN(B) and SRAN(C) - Annual data provided for SRAN(C) only
SRAN (B)	445495	118237	28.6	35.0	33.1	27.6	28.1	22.7	30.5	27.7	27.5	27.7	32.8	28.0	-	-		Triplicate Site with SRAN(A), SRAN(B) and SRAN(C) - Annual data provided for SRAN(C) only
SRAN (C)	445495	118237	35.4	33.0	34.2	26.6	27.0	22.9		30.8	26.0	31.6	33.1	27.2	29.4	24.7		Triplicate Site with SRAN(A), SRAN(B) and SRAN(C) - Annual data provided for SRAN(C) only
SSQ	443483	118612	26.6	24.7	17.6	17.0	17.3	16.8	16.2	14.5	20.6	20.4	24.6	21.8	19.8	16.7		
SWA	446170	114603	26.6	28.1	28.4	22.2	21.1	19.9	23.0	21.7	19.6		24.9	21.0	23.3	19.6		

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 <(x.x)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
TP(A)	445310	119148	23.8	21.7	22.3	16.4	18.4	13.3	17.1	16.1	18.6	23.4	24.3	16.4	-	-		Triplicate Site with TP(A), TP(B) and TP(C) - Annual data provided for TP(C) only
TP(B)	445310	119148	21.5	22.9	23.9	15.9	17.7	14.7	16.4	15.4	17.7	22.7	22.9	19.5	-	-		Triplicate Site with TP(A), TP(B) and TP(C) - Annual data provided for TP(C) only
TP(C)	445310	119148	21.9	22.9	22.3	16.3	17.5	12.7	17.0	15.3	17.0	23.1	24.8	18.9	19.2	16.2		Triplicate Site with TP(A), TP(B) and TP(C) - Annual data provided for TP(C) only
TWY	445739	119856	27.1	27.8	24.5		20.5	18.1	19.6	19.8		21.9	28.8	17.9	22.6	19.0		
UNC	448090	112635	23.2	25.1	17.7	16.5	15.3	16.1	16.4	17.1	15.4		18.9	19.3	18.3	15.3		
WA	444483	119443	31.5	32.6	29.6	26.7	25.5	23.9	23.1	14.4	52.1	26.7	31.9	25.8	28.7	24.1		
WSRB	450815	114091	17.5	15.0	14.1	11.2	11.5	8.6	10.8	9.9					12.3	11.4		
WYV	449577	118165	28.0	26.7	26.0		25.8	23.2	22.0	18.0	23.2	15.6	30.5	22.1	23.7	19.9		

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.

Local bias adjustment factor used.

National bias adjustment factor used.

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

Eastleigh Borough Council confirm 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 Eastleigh Borough During 2024

Eastleigh Borough Council has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Eastleigh Borough During 2024

Eastleigh Borough Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

All diffusion tubes for monitoring in 2024 were supplied by Gradko International Ltd (trading as Gradko Environmental) with a 20% TEA in water preparation method. Gradko holds UKAS accreditation certificate to ISO17025:2017[14], which includes this analysis. Gradko participated in four rounds of the AIR-PT laboratory proficiency testing scheme during 2024, with 100% of their results determined to be satisfactory[15]

All 2024 diffusion tube results reported were collected in adherence with the Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

Table C.1 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor Portsmouth	Annualisation Factor Bournemouth	Annualisation Factor Southampton	Average Annualisation Factor	Raw Data Annual Mean (µg/m^3)	Annualised Annual Mean (µg/m^3)
MH	0.8658	0.8385	0.8508	0.8517	34.9	29.7

[14] ABOUT – Gradko

[15] WASP – Annual Performance Criteria for NO2 Diffusion Tubes

Site ID	Annualisation Factor Portsmouth	Annualisation Factor Bournemouth	Annualisation Factor Southampton	Average Annualisation Factor	Raw Data Annual Mean (µg/m^3)	Annualised Annual Mean (µg/m^3)
WSRB	1.0961	1.1072	1.1031	1.1021	12.3	13.6

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.

Eastleigh Borough Council have applied a national bias adjustment factor of 0.84 to the 2024 monitoring data. A summary of bias adjustment factors used by Eastleigh Borough Council 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	0.84
2023	National	03/24	0.81
2022	National	06/23	0.84
2021	National	06/23	0.84
2020	National	03/21	0.81

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.

No diffusion tube NO_2 monitoring locations within Eastleigh Borough required distance correction during 2024.

QA/QC of Automatic Monitoring

Air quality measurements from automatic instruments are validated and ratified to the standards described in LAQM.TG22. Automatic monitoring sites are visited fortnightly by a trained Council officer to calibrate the instrument reading against gas standards of a known concentration obtained from a certified supplier. A comprehensive service and maintenance contract is maintained with an external organisation which includes 6-monthly servicing of the analysers and emergency call-outs. Data presented in the ASR has been validated and ratified by Ricardo Group as part of a data management contract. This contract includes a website displaying live and historic data, at Eastleigh My Air and annual site audits carried out by the National Physical Laboratory. From January 2024 all recent and historic data moved to Eastleigh Borough Council - Air Quality monitoring service administered by a new provider.

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

Monitoring of PM_{10} and $PM_{2.5}$ has been carried out since February 2020 using a Fidas analyser, which does not require the application of a correction factor. Data validation and ratification, along with equipment maintenance and servicing, is also carried out for this analyser as detailed above.

Automatic Monitoring Annualisation

All automatic monitoring locations within Eastleigh Borough Council 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 Eastleigh Borough Council required distance correction during 2024.

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

Figure D.1 – Map of Non-Automatic Monitoring Sites located on AQMA No. 1 (Eastleigh)

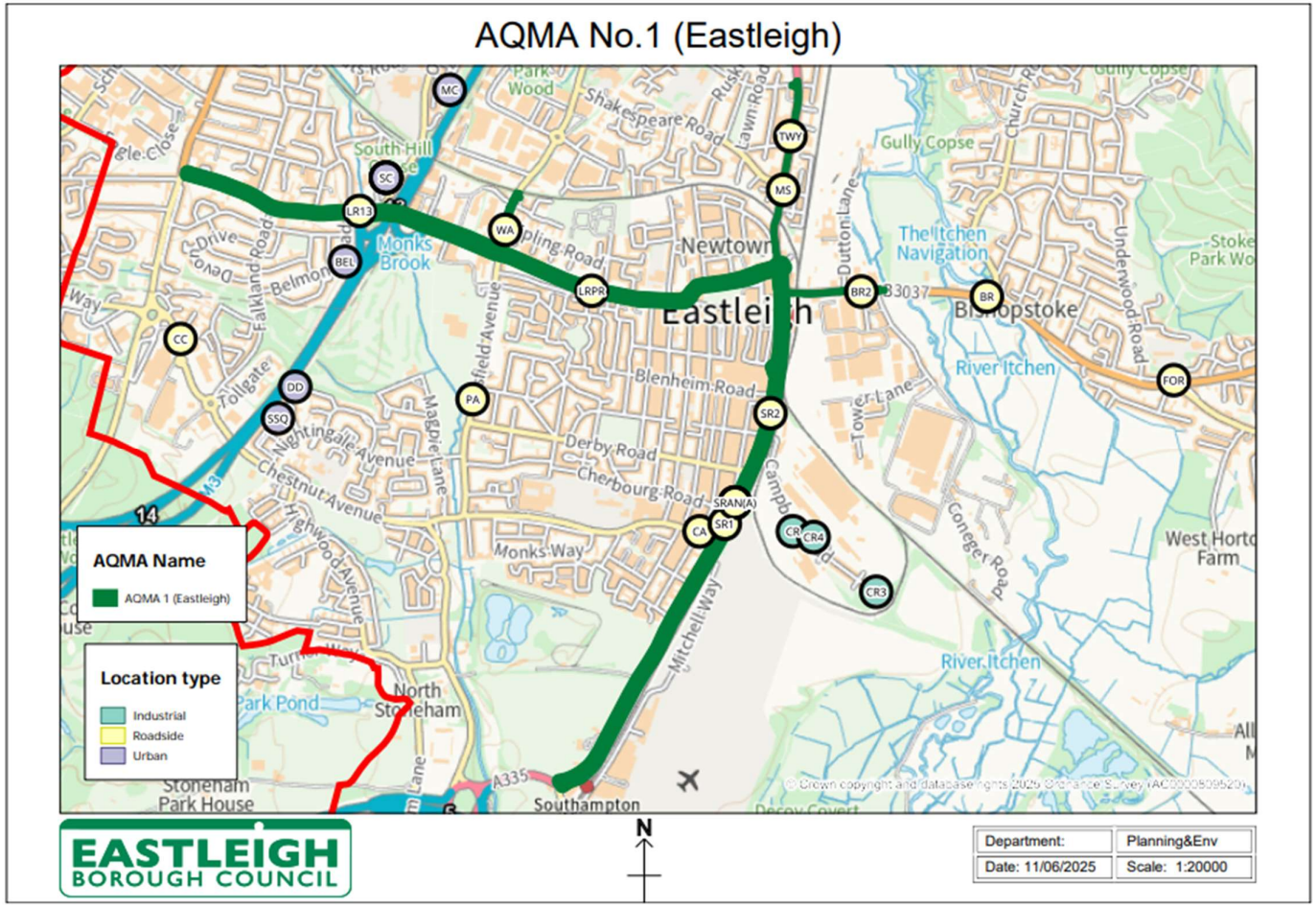


Figure D.2 – Map of Non-Automatic Monitoring Sites located at AQMA No.2 (M3)

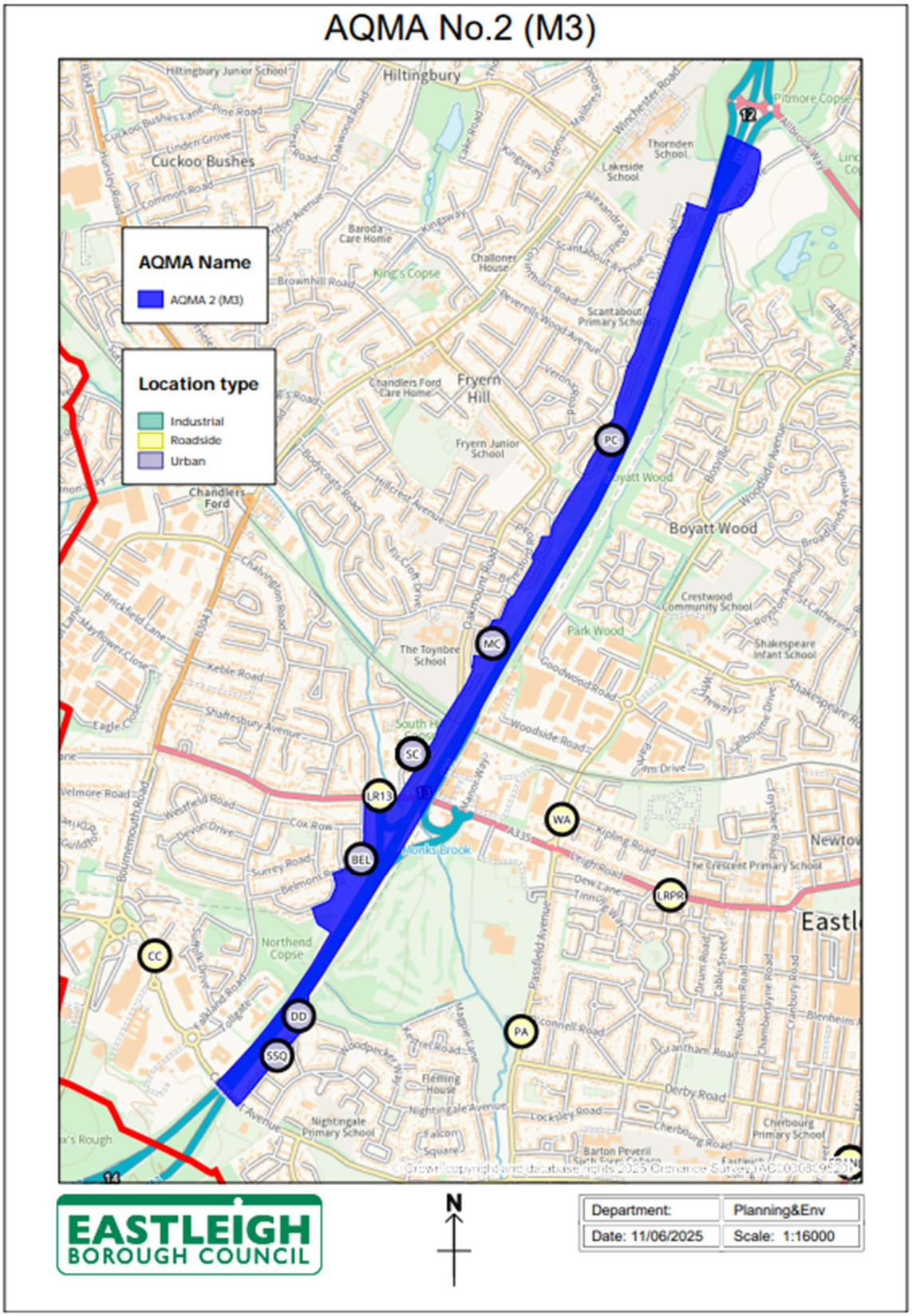


Figure D.3 – Map of Non-Automatic Monitoring Sites located at AQMA No.3 (Hamble Lane Area)

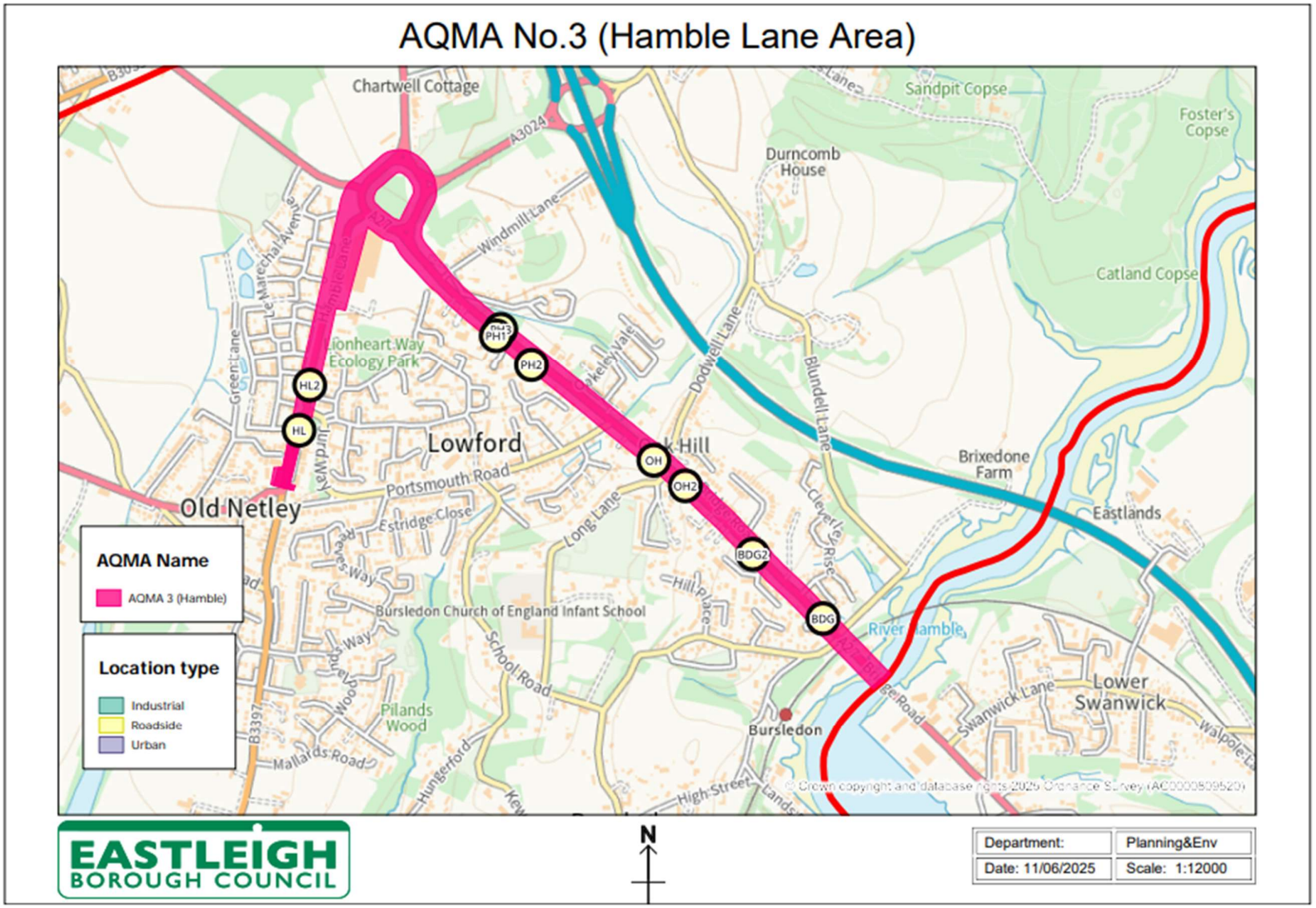


Figure D.4 – Map of Non-Automatic Monitoring Sites located at AQMA No.4 (High Street Botley)

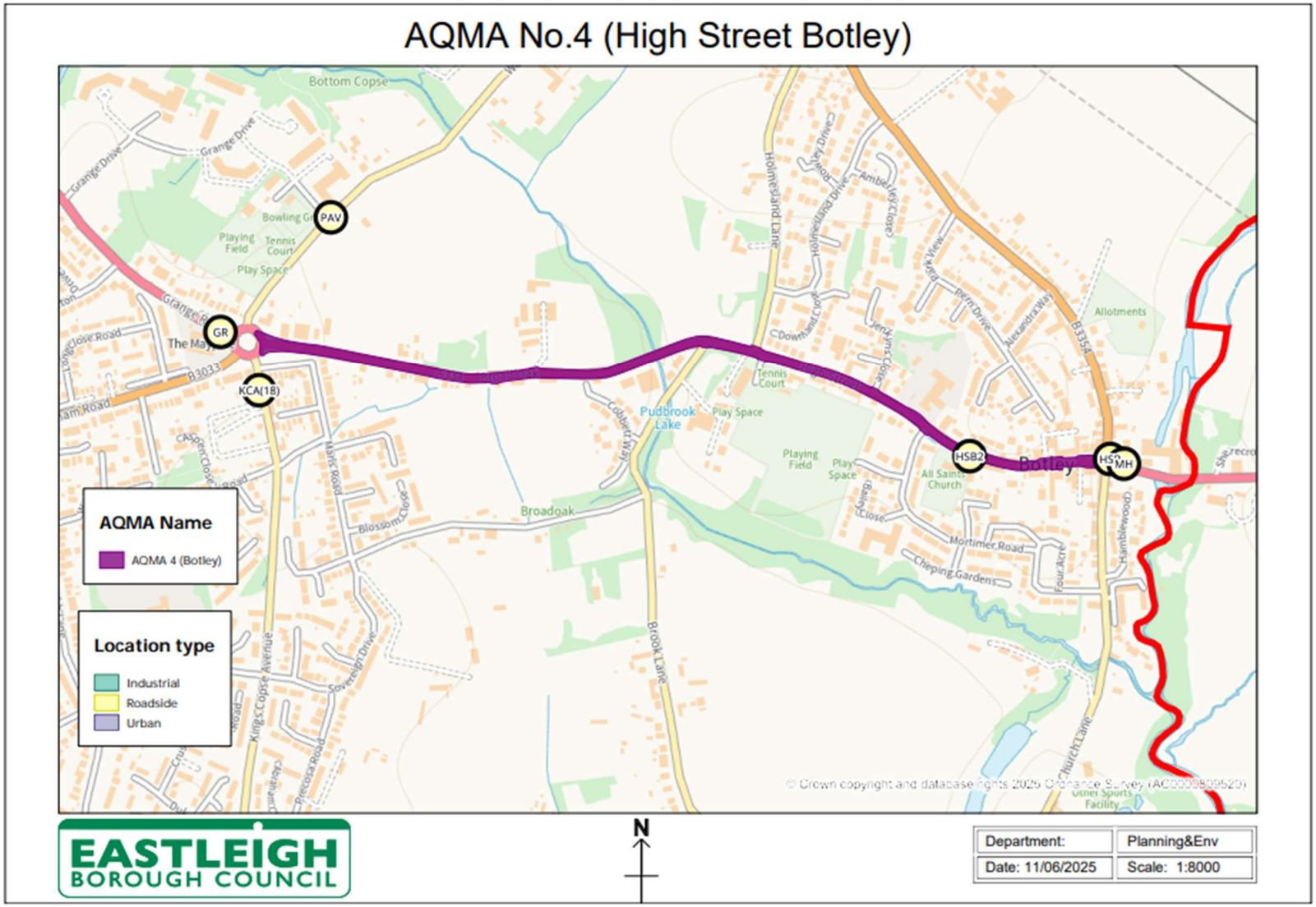


Figure D.5 – Map of Non-Automatic Monitoring Sites (northern area of the Borough)

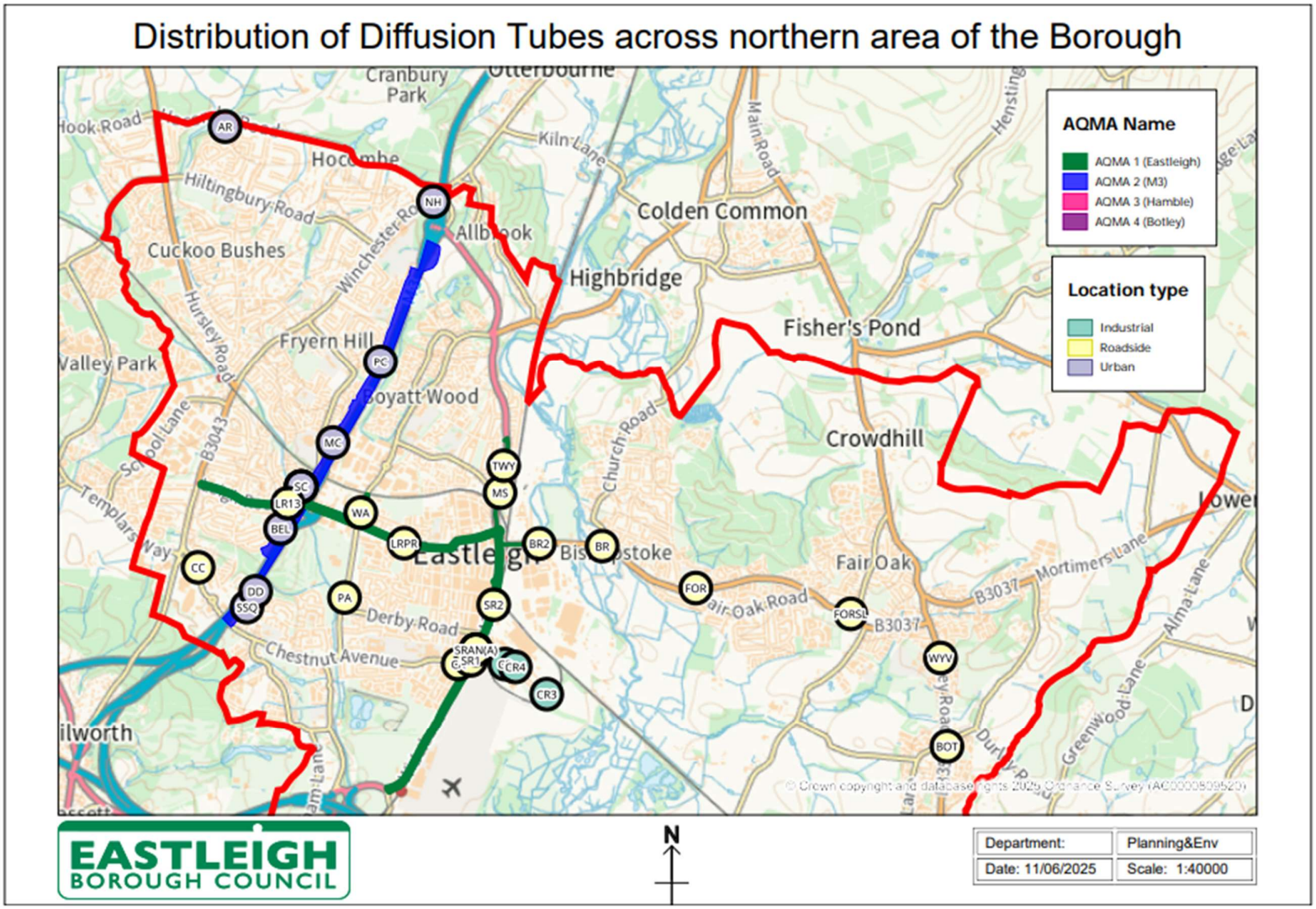


Figure D.6 – Map of Non-Automatic Monitoring Sites (central area of the Borough)

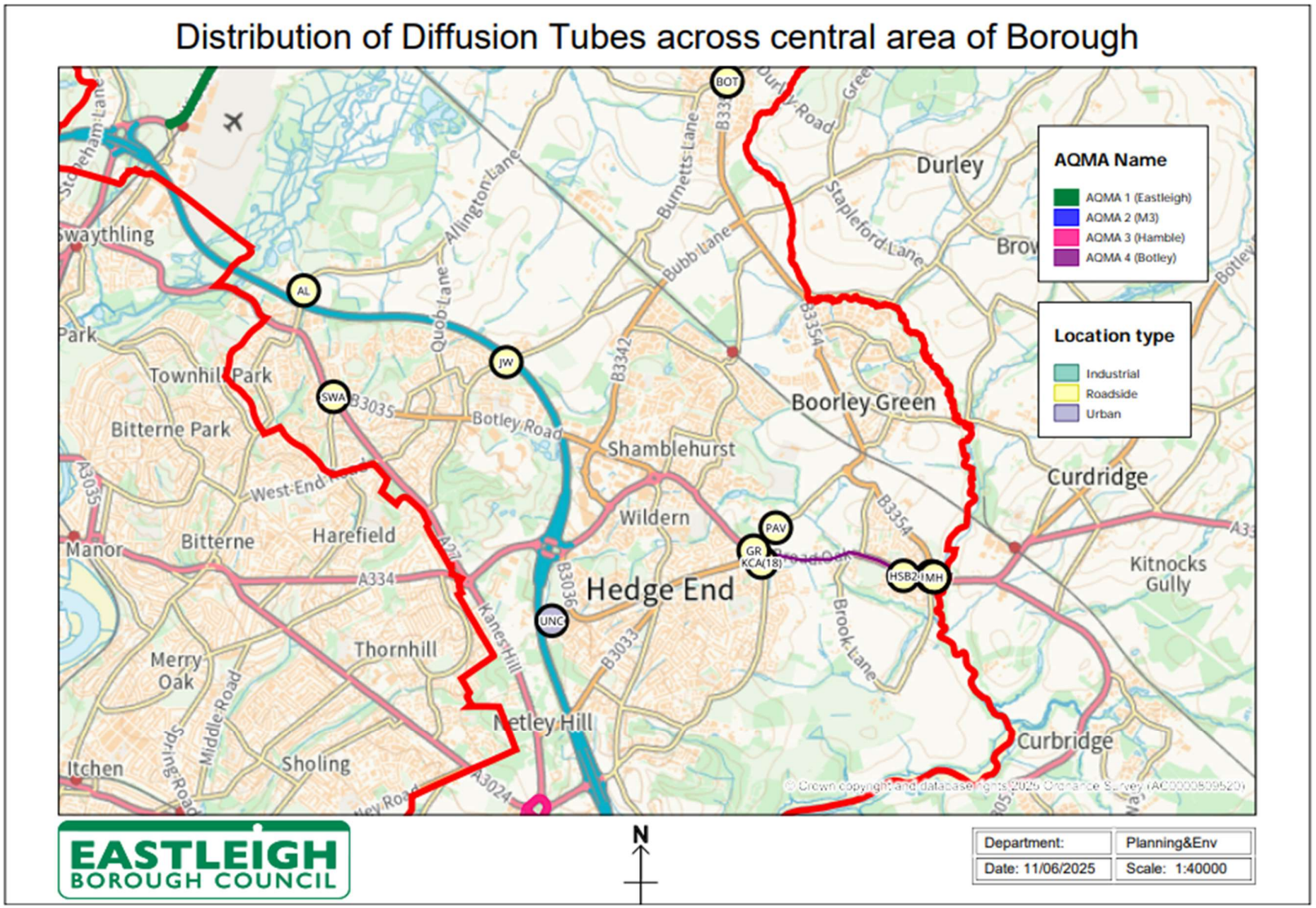


Figure D.7 – Map of Non-Automatic Monitoring Sites (southern area of the Borough)

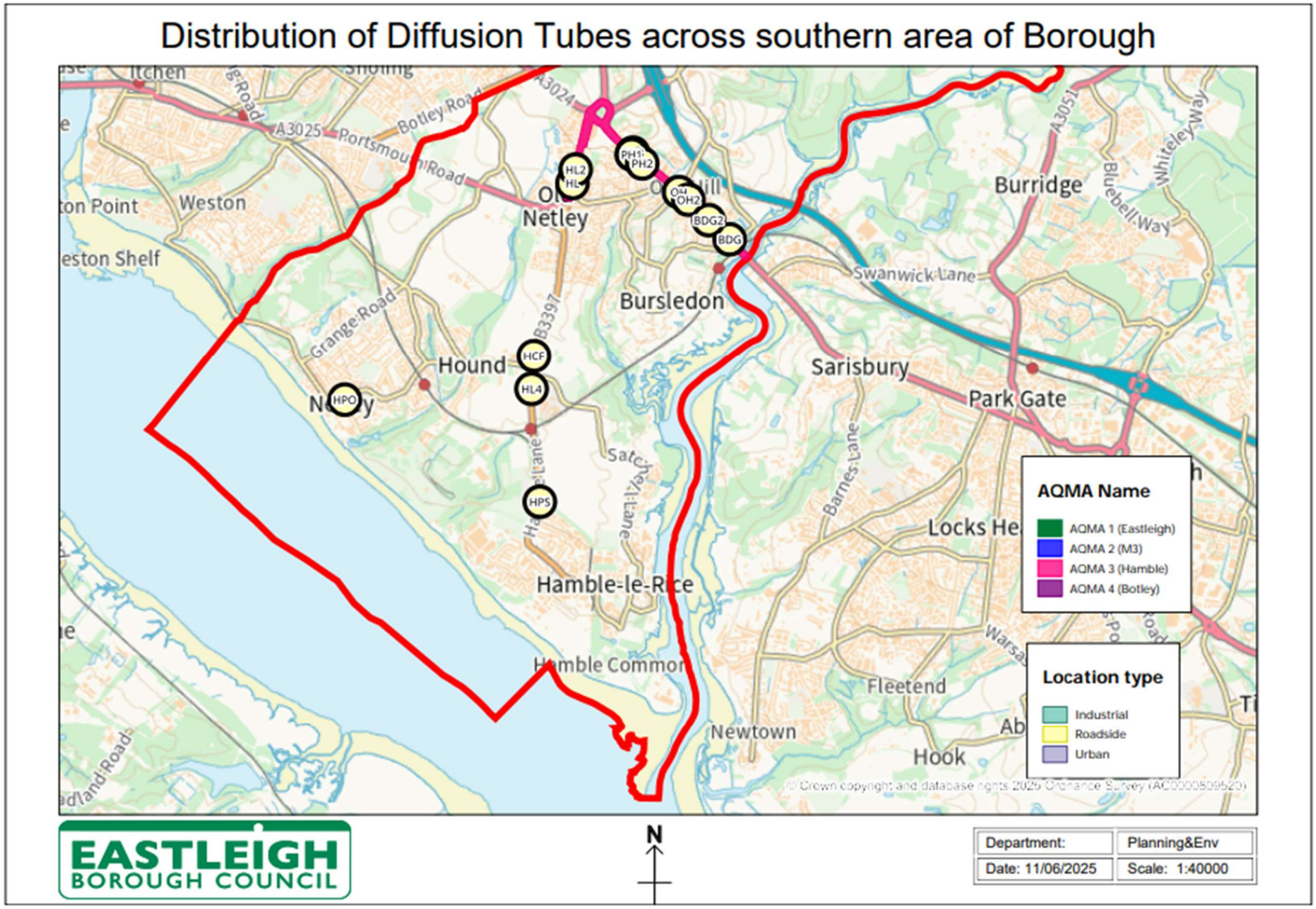
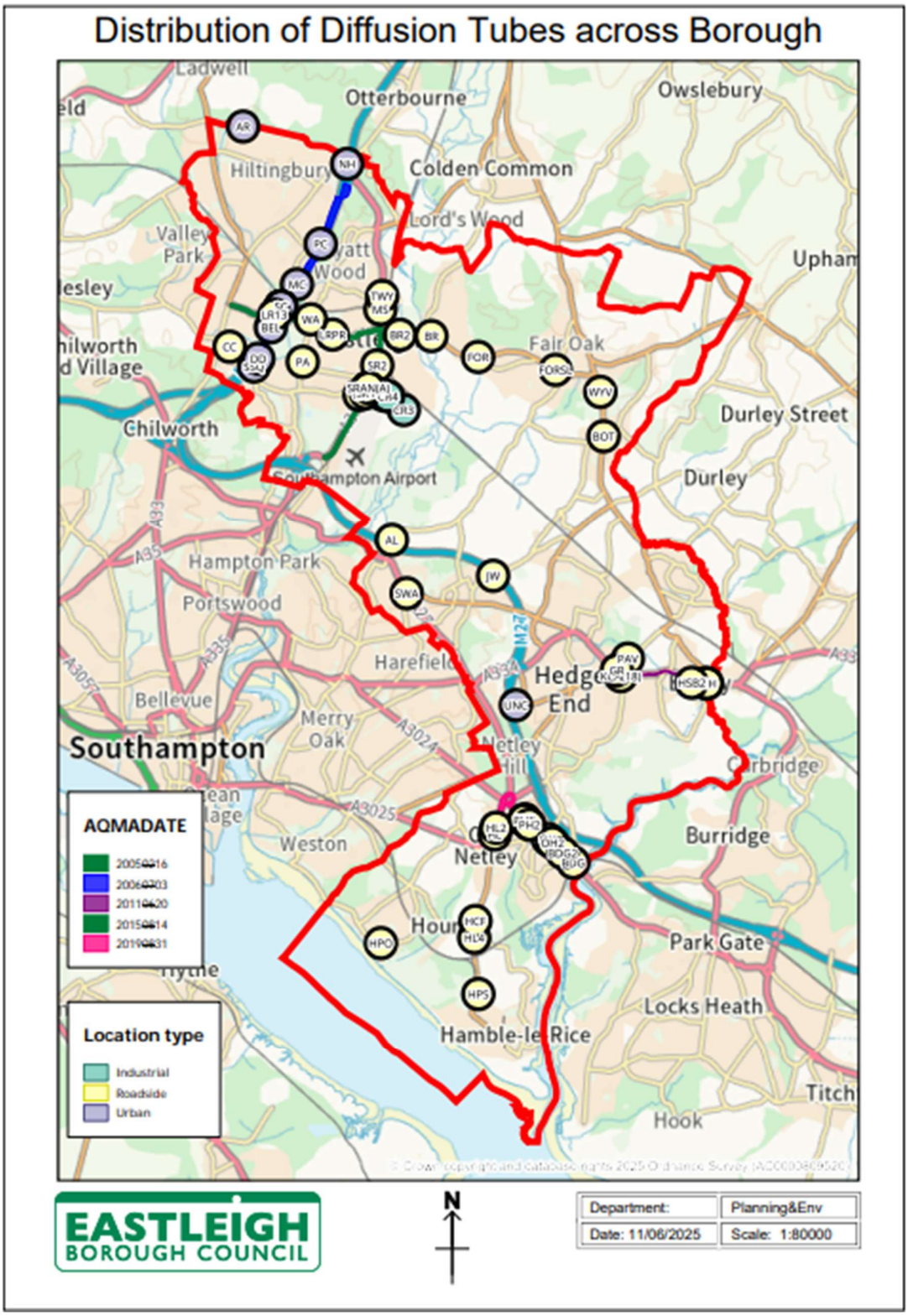


Figure D.8 – Map of Non-Automatic Monitoring across entire Borough



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 microgrammes 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
AURN	Automatic Urban and Rural Network
BHH	Local Area: Bursledon, Hamble-le-Rice & Hound
BIFOHH	Local Area: Bishopstoke, Fair Oak & Horton Heath
CFH	Local Area: Chandler's Ford & Hiltingbury
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EBC	Eastleigh Borough Council
ELAC	Local area: Eastleigh
HCC	Hampshire County Council
HEBEW	Local Area: Hedge End, West End & Botley
LAQM	Local Air Quality Management
NFDC	New Forest District Council
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SCC	Southampton City Council
SO_2	Sulphur Dioxide
WCC	Winchester City Council

References

- Local Air Quality Management Technical Guidance LAQM.TG22. May 2025. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra.