



Knowsley Council

2026 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 2026

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Local Responsibilities and Commitment

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Executive Summary: Air Quality in Our Area

Air Quality in Knowsley Metropolitan 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. PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.

The main sources of air pollution in Knowsley, as identified from previous air quality reviews and assessments, as well as the work carried out in the Merseyside Atmospheric Emissions Inventory, are from industrial sources and road traffic vehicle emissions.

Knowsley is home to a wide range of commercial and industrial developments and is an important location for employment in the Liverpool City Region. The borough has large industrial bases concentrated mainly on Knowsley Business Park (situated in Kirkby), Huyton, Kings and Prescot Business Parks (situated in the centre of the borough), and Jaguar Land Rover car plant (situated in Halewood).

Neighbouring authorities also house large industries that can have an impact on the air quality in Knowsley. For example, the Shell oil refinery and petro chemical complex in Ellesmere Port lies to the southwest of Knowsley as well as major glass manufacturing sites in St Helens.

Traffic movements within the borough also play a significant role when considering air quality. Knowsley has a variety of road connections. The M57 is the 'backbone' of the borough, running Northwest to Southeast. The M62 and A580 (East Lancashire Road) link with the M57 and cut through the borough East to West. The A5300 acts as the southerly extension of the M57. The motorway and main A-roads are connected via a network of smaller roads, which link towns and villages in the borough.

Knowsley Metropolitan Borough Council (MBC) had 3 automatic monitoring stations located in Huyton, Halewood and Kirkby, which were operated from 2008 to September 2021. In 2021, the air quality monitoring stations monitored the following pollutants:

- Kirkby – nitrogen dioxide (NO₂) and particulate matter less than 10 microns (PM₁₀)
- Halewood and Huyton both reported for NO₂ only from 2020, as the TEOM particulate monitors installed in these units were no longer producing data that could be used, as it couldn't be validated against the volatile correction model.

All 3 automatic monitors demonstrated long-term compliance with the Air Quality Standards (AQS) objectives for Nitrogen Dioxide (NO₂) and particulate matter (PM₁₀), both are principal pollutants of concern for air quality.

In September 2021, the automatic monitoring stations were decommissioned because of the compatibility of the automatic monitoring stations and the completion of the contract with www.wecare4air.co.uk. With the current austerity conditions the replacement of new automatic monitoring stations is currently being reviewed. Knowsley MBC have continued to monitor NO₂ within the areas of Huyton, Prescot and Kirkby through use of diffusion tubes. In February 2022, an area within Halewood was incorporated within the network of diffusion tube monitoring. The diffusion tube network within Knowsley has demonstrated long term compliance with the AQS objective.

In previous years, the ASR reports have identified an area of concern in Huyton, at the junction of Whitefield Lane / Cronton Road. The NO₂ levels (diffusion tube locations) in the area of concern in Huyton has reduced concurrently in the last three years, when compared to the previous year's results, although the results have been adjusted using the national bias adjustment. In previous years Knowsley MBC were able to calculate a local bias adjustment factor using the continuous monitor positioned on Cronton Road in Huyton, however this was decommissioned in September 2021, and therefore the national bias adjustment factor is now used.

During 2025, all diffusion tube monitoring sites reported NO₂ values compliant with the NO₂ AQS objective, similar to that of 2024.

In 2025, all sites in Huyton and Halewood were below the NO₂ concentrations compared with 2024. Within Kirkby, two sites (K8, K10) recorded very slight increases, with two sites (K3, K7) not changing levels, and one site within Prescott (P2) recording a slight increase. All the results for these sites were significantly below the NO₂ AQS objective when the national bias adjustment factor was applied. The increase in the level in Huyton, Kirkby and Prescott, when compared to previous years, may be due to the construction of new housing developments and industrial premises next to the diffusion tube sites. We will continue to monitor using diffusion tubes in this area in 2026.

Knowsley MBC have not introduced any Air Quality Management Areas (AQMAs) in 2025.

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.

To improve the air quality in the borough, Knowsley MBC continues to work with the Liverpool City Region (LCR) local authorities, Merseytravel, Environment Agency and a range of other partners. The LCR Combined Authority Air Quality Group has been established to identify opportunities in the LCR to improve air quality and, of equal importance, the associated benefits to health and well-being, whilst supporting the growth and development of the region.

Key completed measures in Knowsley are:

- Development of an Air Quality Strategy 2024 – 2027.

- Development of an Air Quality Action Group to monitor priorities set out in the Air Quality Strategy.
- Regular Air Quality Technical Group meetings.
- Worked with the planning system to embed the role of air quality in sustainable development.
- Developed local supplementary planning documents, to mitigate air quality impacts ([Supplementary planning documents | Knowsley Council](#)).
- Introduced active travel measures (constructed cycle ways/walkways in the borough), to promote alternative travel modes to reduce traffic volumes, leading to reduced emissions ([Travel strategies | Knowsley Council](#)).
- Improved the efficiency of road junctions and signals, to reduce idling traffic and congestion.
- Introduced neighbourhood action days to address issues within the borough and promote ways to improve air quality, through awareness of 'Ready to Burn,' Health Homes, damp and mould prevention, clean air day.
- Educational activities with 'Clean Air Kids' workbook being provided for every Year 3 pupil in the borough and promotion of the Living Streets WOW scheme, encouraging children to Walk / Bike to school at least once per week. Through collaborative working with schools, travel plans have been established with a package of measures to reduce car dependency on the school run; Road Safety sessions delivered to all Year 4 pupils; and facilitated bike-ability cyclist training for Year 5 / Year 6.
- Environmental improvements through increasing woodland and increasing biodiversity.
- As part of the LCR combined authority we have been included in a new air quality monitoring exercise. 'EarthSense Zephyr' monitors have been installed close to some traffic light junctions throughout the region. These sensors monitor for a variety of pollutants. For further information see (www.earthsense.co.uk/zephyr).

Air Quality Strategy 2024 – 2027

Knowsley Council have implemented an Air Quality Strategy (2024 – 2027) to outline clear priorities for the borough to improve air quality. The Air Quality Strategy also supports our

Climate Emergency Action Plan 2040 commitments, to help deliver local air quality improvements and objectives alongside supporting national air quality objectives taking into consideration the range of local government, and Liverpool (LCR) City Region frameworks.

The proposed new Strategy sets out priorities for Knowsley as follows:

- *Priority One – Supporting the reduction of domestic, commercial, and industrial emissions.*

This priority focuses on the Council's responsibilities to monitor and capture data to inform measures to reduce exposure to emissions. The information gathered will allow officers to review the appropriateness of smoke control areas along with the review of current environmental permits associated with the release of substances into the atmosphere. Where emissions are high the council can use enforcement powers to tackle some of the worst polluters, however this priority is predominantly focussed on working with those who create the most pollution (developers, industry, residents) and explore alternatives to energy use and processes within daily tasks to help to reduce the amounts of pollution put into the air within the borough.

- *Priority Two – Supporting the reduction of emissions from transport.*

This priority aims to support the Government's commitment for the UK to achieve Net Zero by 2050. The decarbonisation of transport has its own dedicated policy in place to reduce air pollution including a zero emissions vehicle (ZEV) mandate. Knowsley will develop its own active travel plan in conjunction with the Liverpool City Region Transport Plan. When available the council will signpost funding for both private and commercial transport supporting all stakeholders to make the move to zero emissions transport. The council will bring focus to the development of electric vehicle and alternative fuels infrastructures working with the private sector and using government funding to ensure charging equity, this will include working towards the production of a dedicated Electric Vehicles and Alternative Fuels Strategy.

- *Priority Three - Raise public awareness of air quality and encourage behaviour change.*

This priority will see the development of a co-ordinated communications strategy and delivery plan assisting local, and national policies that support improving air quality. We will promote the national agenda to move towards net zero, encouraging behaviour change and providing the related information and guidance to make those changes. Where we can, we will promote funding opportunities and continue to support city region

schemes for solar panels, heat pumps, and other alternative fuels. We will promote active travel working from our own employees outwards, encouraging walking and cycling for short journeys and advance the use of greener public transport through a clear green message. This will all be done through the development of a digital platform through which we can share relevant detail and information.

- *Priority Four – Supporting improvements to indoor air quality.*

This priority will work towards raising awareness of how indoor air quality can be improved. This will build on the work that was undertaken during the Covid-19 pandemic ensuring households, places of work and public spaces are well ventilated, along with identifying those practices that increase the risks of poor air quality such as log burning stoves or the use of different types of chemicals. This priority will work to identify those most vulnerable populations who are most likely to be exposed to indoor air pollution and work to engage with them. We will also work with all tenure types to deliver information advice and guidance relating to indoor air pollution, monitor and enforce where needed, and promote actions to improve indoor air quality.

Addressing these priorities has been identified as key in helping to tackle some of the challenges the borough faces through air pollution and its impacts on those who live, work in, and visit Knowsley.

Conclusions and Priorities

In 2025, there were no exceedances of the relevant NO₂ AQS objectives at areas of relevant exposure when the corrections have been completed for the fall of with distance calculations. As such, compliance has been achieved throughout the Borough, with a decrease in concentrations at sites within Huyton, Kirkby, Prescott and Halewood due to the use of the national bias adjustment figure, there is still concern for air quality within the areas discussed above, therefore Knowsley MBC will continue to use diffusion tubes to closely monitor these hotspot areas.

Knowsley MBC will also look at ways the continuous monitoring regime can be brought back into use, which would also help us to calculate our own local bias adjustment figure, which would provide a more accurate picture of air quality within the area.

Knowsley will continue to work with the LCR combined authority to progress improvements to air quality in the area, and will continue with the EarthSense Zephyr scheme, setup by LCR in 2022.

The council will continue to raise awareness and understanding of air pollution, primarily through participating in the national Clean Air Day and implementation of the Air Quality Strategy. There is an ongoing commitment to monitor the implementation of the Strategy and measure performance in line with action plans that will be developed in response to the Strategy.

How to get Involved

- Knowsley MBC was involved in the 2025 National Clean Air Day and worked with schools and taxi firms to prevent idling, through the Anti-idling Campaign. The Environmental Health Team supported Idling Awareness Day by having a leaflet designed and carrying out school visits. Officers engaged with parents and carers to raise awareness about the risks of engine idling. These coordinated efforts aimed to promote cleaner air around schools and within the wider community by reducing vehicle emissions and improving air quality, particularly in areas where vulnerable groups, such as children, are most at risk.
- Seven 'Healthy Home' road shows have taken place across Knowsley as a 'drop-in' for residents to report housing issues. There have been 502 resident conversations; 53 referrals or follow-up actions generated; multi-agency delivery including Environmental Health, Smoke Free Knowsley, Digital Inclusion, Healthy Knowsley Service, Healthwatch Knowsley, Volair, Energy efficiency, Citizens Advice, Transform Lives Company, Registered Providers, Social Prescriber, Family Connectors, and Credit Union.
- Traffic Regulation Order programme set up across the borough, with consultation with residents. Prescott town centre parking management scheme and Whiston Hospital area parking management scheme are two major schemes that are currently within an 18-month experimental period and will contribute to improved air quality by reducing the time residents spend searching for a parking space.

- Schools have been provided resources to encourage walking, biking, or scooting to school, educating through assemblies and lessons, with bike-ability cyclist training for year 5 / Year 6 pupils.
- School Streets - In September 2025, the borough's first School Street scheme was introduced at St Anne's Catholic Primary School. This involves closing several roads during school drop off and pick up times to enable children and parents/carers to walk in a car free environment (exemptions apply).
- Road Safety Team - The team deliver a session to all Year 4 pupils that gets them to understand the real-life road safety issues they might face in their local area. It encourages them to think about their own school and solutions they can help to implement. This session also introduces the benefits of active travel.
- The Air Quality section on the council website was updated and communicated to residents via social media [Air pollution and air quality | Knowsley Council](#).
- Neighbourhood action days – Knowsley's service areas (Environmental Health – Domestic Team, Environmental Crime, Environmental Health – Commercial Team, Responsible Dog Ownership & Dog Warden, Pest Control, Street Scene, Environmental Sustainability, Crime & Communities Team, Waste & Recycling, Licensing Enforcement) schedule a day a month within different neighbourhoods engaging with residents and businesses to address any issues that arise. This can include identification and removal of fly tipped waste, which if left is likely to be set on fire, which would impact air quality.
- Environmental improvements within woodland areas continuing into 2025, with selectively thinning out trees within a woodland to support growth of the remaining trees by decreasing competition for light and nutrients. This process also removes the dead, dying, or dangerous trees to improve the health of the woodland and increase accessibility.

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1 Local Air Quality Management

This report provides an overview of air quality in Knowsley Metropolitan Borough Council during 2025. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether 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 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 Knowsley MBC 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, Appendix E.

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.

Knowsley MBC currently does not have any declared AQMAs. A local Air Quality Strategy is in place to prevent and reduce polluting activities. The Local Air Quality Strategy is available at [What is air quality | Knowsley Council](#).

Our results showed that no monitoring sites exceeded the AQS objective following bias adjustment, no sites required a distance correction, and no sites were within the 10% of the AQS objective.

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

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

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

1. The Council have highlighted that comments from the previous ASR appraisal have been addressed. This is encouraging and the Council should continue to address comments in future reports.
2. KMBC have outlined the key priorities of their local air quality strategy alongside the national air quality objectives. They have also explicitly mentioned what measures they have made progress against in the reporting year, this is welcomed.
3. A small inconsistency is that monitoring site "H9Aa, H9Ab" is listed as roadside in Table A.2 and as suburban in Table A.4. Please could the correct site type be clarified. *Rectified.*

4. KMBC has used a national bias adjustment factor and has stated so in the QA/QC section. However, it is good practice to include a screenshot of the national bias adjustment factor spreadsheet in the report. *Rectified.*
5. Appendix E explains why tubes were not deployed in time in December and lists the options available to KC to adjust the data accordingly. This is an example of good practice.
6. KMBC's involvement in the AIR PT scheme showcases the council's continued commitment to QA/QC. One comment would be to include an appendix showing figures with the AIR PT data. *Rectified.*

Knowsley MBC has taken forward several direct measures during the current reporting year of 2025 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1. The Air Quality Strategy implementation plan priorities are included within Table 2.1, with the type of measure and the progress Knowsley MBC have made during the reporting year of 2025 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1.

Key completed measures are:

- KMBC worked with Malvern Primary School, GB Energy, and the Department for Education to secure funding to install Solar PV at Malvern Primary school producing 48.3MWh of solar generated energy each year with a predicted cost saving of £8,125 on energy bills annually. This equates to a 35% reduction in energy bills. Additionally, funding has been secured to install several EV Charge points across the school.
- Solar PV, LED lighting has also been installed at Park Brow Primary School, again funded through the Department for Education.
- Several Climate Action Workshops have been held by schools in partnership with Let's Go Zero to support schools in creating their own Net Zero and Climate Action Plans with transport being a main theme.

- The Net Zero Delivery Plan 2026-2030 has also been approved which sets out the actions the Council will undertake to make progress towards its Net Zero 2040 target, with transport being a Key Pillar.
- The Knowsley Place - Climate Delivery Plan 2025-2030 was also approved in 2025 and included several actions to reduce emissions from both transport and buildings including enabling the shift to electric vehicles. Tower Hill Park - Creation of new park within the Tower Hill estate of Kirkby. Key function of the park is to deliver sustainable travel connections between surrounding neighbourhoods, as well as links between neighbourhoods and key amenities such as Schools, Shops, Public/Community Buildings and the new Headbolt Lane Train Station. Extensive pedestrian and cycleway routes and associated infrastructure have been installed through the site for this purpose, supplemented by a programme of tree planting, woodland management and other habitat enhancement to improve the quality of the environment, including air quality, in this key area of deprivation within the borough. Boundary fencing and entrance designs have served to restrict unauthorised motorised vehicle access through the site, with street lighting along key routes conversely promoting safe routes through the site and maximising accessibility for sustainable/active travel. [Planning the future of Tower Hill Park - Knowsley News](#)
- Hilton Grace Woodland - linked to a programme of works to enhance drainage/flood management of this community woodland space, enhancements were made to a key pedestrian through-route connecting neighbourhoods either side of the woodland space. Coupled with the drainage management enhancements, new path surfacing has served to make this route far more accessible and viable for more pedestrians/active travellers. The works were also complemented by woodland management operations to improve the health, function, and biodiversity of the woodland habitat and, as a result, the air quality within the site.
- St Kevin's Public Open Space and Mulberry Park Public Open Space - aligned with the construction of the new Headbolt Lane Train Station in Kirkby, investment was made in these two public open spaces to create a southern pedestrian entrance and active travel route to the station from the Northwood estate to the south. As well as

the installation of a connecting path route into the Station via St. Kevin's POS, the works have entailed installation of lighting to maximise the usability and safety of the route for pedestrians/train users to access public transport rather than resort to motor vehicle use. Complementing this active travel work, landscaping and tree planting of both sites has been conducted to enhance the quality of the environment and air quality in the locality.

- The Knowsley Waste & Resources Strategy 2026 – 2029 has been approved which sets out key outcomes around reduce, reuse, and recycle, decarbonisation of fleet, assets and infrastructure.
- The Recycling Engagement Team have been leading on a number of initiatives to divert waste away from incineration (Energy from Waste):
 - Through the addition of textile banks in over 10 locations across Knowsley with textiles either being reused or broken down to use as insulation.
 - A home collection used textiles pilot has been launched in Halewood diverting textiles to the same place as above.
 - Establishing a Zero Waste Schools Programme to be rolled out in 2026.
- Highways works – Higher Road, Halewood:
 - The introduction of a new segregated cycleway along Higher Road from Finch Lane to Leathers Lane.
 - The removal of the Higher Road / Baileys Lane roundabout and the creation of a new traffic signalised junction, which will improve junction capacity, improve safety and provide pedestrian and cycling crossing facilities.
 - A realignment of the carriageway and introduction of an enhanced central reserve between the junctions with Finch Lane and Baileys Lane. This is to reduce traffic speeds, improve safety and develop new landscaped areas.
 - The installation of new traffic signals with pedestrian and cycle crossing facilities at Finch Lane, promoting road safety for pedestrians and cyclists, as well as improving vehicular access to and from Everton Football Club's Finch Farm training facility and Hale Village.

- Segregated cycle and pedestrian crossing facilities at the junctions with Baileys Lane and Leathers Lane.
 - Established a formal all weather footpath network around and through Finch Woods, increasing recreational use and accessibility as well as improving public right of way and active travel links.
 - Higher Road planting scheme – 57 trees and 81m of hedge.
- The M57 Junction 4, Phase 1:
 - Improvements at the Moorgate Road/East Lancashire Road junction support Knowsley Council's carbon-reduction objectives by reducing traffic delay and enabling more sustainable travel. The introduction of an additional running lane and optimisation of traffic signals will directly reduce queue lengths and idle traffic, lowering vehicle emissions at the junction, while enhanced cycling provision supports a shift towards active travel.
 - Scheme-related carbon is primarily associated with carriageway resurfacing and related highways maintenance activities, which will be monitored using standard carbon-measurement equipment. These emissions will be mitigated through delivery by Tarmac (Knowsley Councils contractor), in line with its Net Zero Roadmap, which commits to a 30% absolute reduction in CO₂ emissions by 2030 (from a 2021 baseline) and achieving net zero by 2050, ensuring consistency with Knowsley's wider approach to reducing transport-related carbon through network efficiency and sustainable infrastructure investment.
 - School Streets - In September 2025 the borough's first school street scheme was introduced at St Anne's Catholic Primary School. This involved closing several roads during school drop off and pick up times to enable children and parents/carers to walk in a car free environment (exemptions apply).
 - Installed a toucan crossing over Manchester Road adjacent to junction with Wood Lane and raised uncontrolled crossings across both arms of Wood Lane. Resurfaced 100m of carriageway.
 - Toucan crossing outside St Brigid's school. This will provide a connection to a proposed new cycle route which in turn will join an existing cycleway.

- Installed traffic calming in the form of raised tables at Greystone Road's junctions with Penrose Avenue, Willoughby Road, Hilary Avenue and Norbreck Avenue as well as a round top hump outside the shops between the junctions with Penrose Avenue and Willoughby Road. Installed uncontrolled crossings at each of the junctions as well as one outside of Malvern Primary.
- A signalised junction with additional footways was introduced on Lickers Lane. This will improve traffic flow and reduce congestion and idling. Enhanced pedestrian facilities also encourage short trips to be made on foot, supporting a reduction in vehicle-related emissions and contributing to better local air quality.
- Prescott town centre parking management scheme and Whiston Hospital area parking management scheme are two major schemes that are currently within an 18-month experimental period and will contribute to improved air quality by reducing the time residents spend searching for a parking space.
- Road safety team deliver a session to all Year 4 pupils that gets them to understand the real-life road safety issues they might face in their local area. It encourages them to think about their own school and solutions they can help to implement. This session also introduces the benefits of active travel.
- Facilitate Bike-ability cyclist training for Y5/6 pupils.
- The National Living Streets Walk or Wheel (once a week) scheme is in operation in 12 of the borough's primary schools.
- Modeshift is promoted to all schools with Highways staff supporting those who take on the opportunity to develop a travel plan. A travel plan is a package of measures and a commitment to active travel and reducing car dependency on the school run.
- Knowsley's Local Cycling and Walking Infrastructure Plan (LCWIP) was approved in September 2025.
 - The plan sets out active travel schemes that could be delivered over the next 10 years, to improve walking and cycling infrastructure for Knowsley residents, workers and visitors.

- The plan ensures that the council has schemes ready to secure funding and continues to work towards changing travel behaviour as part of the council's commitment to managing climate change.
 - The primary objective of the Council's Local Cycling and Walking Infrastructure Plan is to enable growth in active travel by providing long term plans for future cycling, walking and wheeling networks throughout the borough, creating better connected, greener, safer and healthier communities where people want to live and work.
- Highways Maintenance - In February 2025, the Council entered a 7-year Highways Term Maintenance Contract with 'Tarmac Trading Ltd'. Through this contract, the Council introduced several measures to support the Council's journey to become a net zero authority and achieve its sustainability-related goals. The first year of the contract set the benchmarking for the service and the contracts Key Performance Indicators (KPI's) will measure the contractor's performance on an annual basis.
 - Annual increase - Percentage of sustainable source materials and resources used in highways maintenance (Based on weight - Tonnes).
 - Annual reduction - Percentage reduction in carbon emissions (Tonnes of CO2).
 - Number of new technologies trialled or introduced.
 - Number of engagements for green initiatives and environmental education.

"Working towards net zero is a priority for Tarmac and our clients so we're always looking to support the development of new and innovative products to help meet our ambitious targets."

This is a system that records the carbon data captured onsite by operatives in real-time dashboards, to track the carbon footprint by activity, job type and location. This data will be used as a comparison to track progress against the works undertaken in year 2.

Tarmac also met the contractual commitment to transition to electric vehicles across the fleet, including inspectors/supervisors/management vehicles, contributing to

reduced carbon impact from vehicle use and supporting environmental performance objectives.

In addition to the contract, since last year we have included pedestrian crossing points as part of maintenance and resurfacing schemes.

- Smokefree Knowsley - A smokefree toolkit for workplaces has been launched in response to the Tobacco and Vapes Bill. It is now hosted on Smokefree Knowsley website [Smokefree Knowsley - stop smoking services in Knowsley](#) and Working Well website [Signposts to Support - Knowsley Chamber](#).
- An external air quality monitoring scheme was setup in 2022, by the Liverpool City Region, using EarthSense Zephyr Sensors. The scheme is ongoing.

The AQ sensors have been located at selected traffic junctions throughout the region. The Intelligent Transport Systems (ITS) Zephyr® is an ambient air quality monitor that accurately measures harmful gases and particulate matter, the monitors provide detailed air quality measurements in real time to help identify pollution hotspots at a localised level such as busy road junctions.

They can be used to redirect traffic and adjust timing on traffic lights in heavy polluted areas, creating smarter and cleaner towns. It is recognised that these monitors are not approved by Defra, but the data can be used indicatively and may help identify if further monitoring is required using approved methods.

The sensors within Knowsley were installed on 07/08th March 2022, at junctions detailed below. The lamppost on Cronton Road with the sensor attached was replaced in January 2023 during junction improvement works, the sensor has been replaced, however, it was only set up to measure ambient air quality in May 2024.

Site ID	Site Location	Council	XOS Grid Ref (Easting)	YOS Grid Ref (Northing)
Cronton Road	Whitefield Lane (Junction)	Knowsley	345553	389405
County Road	Westhead Ave	Knowsley	341465	398820
Hall Lane	Millbrook Drive	Knowsley	341159	398942
County Road	Melling Drive	Knowsley	341243	399491
Old Rough Lane	Near Bigdale Drive	Knowsley	341974	398961

Knowsley (MBC) have several policies which can directly or indirectly impact on air quality in the borough. These range from national requirements, through to local Supplementary Planning Documents:

- ***Air Quality Strategy 2024 – 2027*** – The new strategy is the first dedicated Air Quality Strategy for Knowsley and feeds into a wider strategic landscape across the Knowsley Better Together Partnership and the commitment set out in the Council's Climate Emergency Action Plan, to help deliver local air quality improvements and objectives alongside supporting national air quality objectives taking into consideration the range of local government, and Liverpool (LCR) City Region frameworks. [Air quality | Knowsley Council](#) The Strategy sets out the following priorities:
 - Priority One – Supporting the reduction of domestic, commercial, and industrial emissions,
 - Priority Two – Supporting the reduction of emissions from transport,
 - Priority Three - Raise public awareness of air quality and encourage behaviour change; and,
 - Priority Four – Supporting improvements to indoor air quality.

- ***Knowsley Council Plan 2025-2030*** – Supporting Knowsley’s People and Communities to Thrive. It is focused on three key priorities:
 - Effective support for those in need
 - Encourage growth that benefits everyone.
 - Deliver targeted support to encourage fairness and opportunity.

The Knowsley Council Plan considers the future opportunities and ambitions for local people whilst dealing with the long-standing challenges facing Knowsley residents and communities, [Knowsley Council Plan 2025-2030 FINAL2.pdf](#).

- ***Knowsley 2030 Strategy*** - The council has worked closely with local strategic partners, residents, businesses and other stakeholders to co-produce the [Knowsley 2030 strategy](#). The strategy focuses on five strategic outcomes which set out that, by 2030, Knowsley will be a place:
 - where strong and safe communities can shape their future.
 - where people are active and healthy and have access to the support they need.
 - where people of all ages are confident and can achieve their full potential.
 - with a thriving, inclusive economy with opportunities for people and business; and,
 - with welcoming, vibrant, well-connected neighbourhoods and town centres.
- ***Knowsley Local Plan Core Strategy*** – Policy CS2 Development Principles (design to reduce travel and mitigate AQ impact of traffic, encourage sustainable transport, requiring assessments to be carried out). Policy CS7 Transport Network (to encourage sustainable transport and design out AQ impacts, including improving infrastructure). Policy CS23 Renewable and Low Carbon Infrastructure (supporting low carbon and renewable energy initiatives which don’t impact AQ) [Adopted documents | Knowsley Council](#)
- ***Supplementary Planning Document – Ensuring a Choice of Travel*** – Includes various initiatives to be implemented through the development process, such as Air

Quality Assessments, Travel Plans and Electric Vehicle Charging Infrastructure.

[Supplementary planning documents | Knowsley Council](#)

- ***Amended New Residential Development Supplementary Planning Document*** – Criteria for minimum numbers and standards of Electric Vehicle Charging points in new housing developments, sustainability, and energy efficiency of new houses. [Supplementary planning documents | Knowsley Council](#)
- ***Area-specific Supplementary Planning Documents*** - (for example Halsnead and East of Halewood Masterplan SPD's) which ensure cycling and pedestrian links are provided as part of larger developments, along with Travel Plans were deemed feasible. [Supplementary planning documents | Knowsley Council](#)
- ***Climate Emergency Action Plan 2022-2025*** – Knowsley MBC declared a Climate Emergency in January 2020 and set a target of Net Zero carbon emissions from its estate and services by 2040. The council is working with partner organisations to reduce emissions across the borough. The plan sets out 10 key themes where targeted actions to reduce carbon emissions are to be undertaken. [Tackling climate change | Knowsley Council](#)
- ***Net Zero Delivery Plan 2026-2030*** for Knowsley Council has now been published, with actions within it to work towards net carbon zero by 2040 for buildings, transport, clean energy, and the natural environment, [Net Zero plans and strategies | Knowsley Council](#). Actions within the strategy target:
 - Reduction of emissions from buildings through various decarbonisation methods.
 - The introduction of EV charge points across the borough with the introduction of an EV/AF Implementation Plan.
 - The introduction of a long-term fleet strategy.
 - The delivery of active travel routes as alternatives to vehicle use.
 - Develop and deliver a number of green initiatives across parks and open spaces in Knowsley.

- ***The Knowsley Place - Climate Delivery Plan 2025-2030*** – Knowsley MBC declared a Climate Emergency in January 2020 and set a target of Net Zero carbon emissions from its estate and services by 2040. The council is working with partner organisations to reduce emissions across the borough. [Tackling climate change | Knowsley Council](#)
- ***Knowsley Waste & Resources Strategy 2026-2029*** has been published with key outcomes around reduce, reuse and recycle and the decarbonisation of fleet, assets and infrastructure [Recycling in Knowsley | Knowsley Council](#). Actions within the strategy include:
 - Minimising residual waste - through engagement, new services, make round adjustments for increased effectiveness - lowering waste going to energy from waste and as a result lowering Greenhouse gasses.
 - Diverting food waste for recycling and in turn capturing methane for electricity generation, which is then fed into the electricity grid, and the remaining waste product being re-used in agriculture.
 - Moving fleet over to HVO (Hydrotreated Vegetable Oil) from regular fuels, lowering CO₂ emissions by up to 90%, longer term moving vehicles over to biogas or electric.
 - Upgrading depot infrastructure to support the storage of HVO and provide charging facilities for electric vehicles for fleet and visitors.
- ***Greenspace Action Plan 2024 – 2030***: The Green Space Action Plan recognises that green spaces play a key role in making Knowsley an attractive place to live, work and visit. They are also crucial in promoting mental and physical wellbeing, providing recreational areas, improving air quality, and enhancing the quality of life for residents. Significant achievements in recent years include installing new play areas, creating new community sporting facilities and accessible walking and cycling routes, securing 20 Green Flag Awards, delivering an annual programme of freely accessible community events and activities, and supporting the establishment of 46 'Friends of' parks and green spaces groups. [Knowsley Council unveils ambitious Green Space Action Plan - Knowsley News](#)

Public Health Policies [Public Health | Knowsley Council](#)

- ***The Joint Health and Wellbeing Strategy 2020-2025*** – In 2020, the COVID-19 pandemic had a profound impact on the Knowsley community and has expanded the gap of existing health inequalities. The purpose of the strategy is to address matters in areas where Knowsley under performs in comparison to other parts of the country and to improve mental health, well- being and social isolation among all age groups. The Council recognises the importance of air quality as it can contribute to poorer health of the most vulnerable in society such as children, older people and those with heart disease and lung conditions. Knowsley has declared a Climate Emergency early in 2020 and work is underway to mitigate the impacts of climate change on the social and environmental determinants of health. [Joint Health and Wellbeing Strategy 2020-2025](#)
- ***Child Health Strategy*** – The strategy provides a starting point in learning and actively engaging with children, young people, families and key partners to identify the significant factors involved in ensuring their better health in the future, partially through promoting an active lifestyle as a family working with education facilities to promote active travel.
- ***Active Travel Fund*** – This has plans in place both short term and long term to improve the walking and cycling routes throughout the borough, especially in areas with poor levels of air quality (Cronton Road) and encouraging access to retail and places of work such as Jaguar Land Rover, the boroughs largest employer.
- ***Reducing Health Inequalities*** – One of the objectives in reducing health inequalities is to ensure deprived areas have access to the same opportunities to those living in less deprived zones. This will include entry to open spaces that are of good quality by reducing air pollution such as decreasing or slowing down traffic in neighbourhoods predominantly around schools, to help protect children's health as they are particularly vulnerable to air pollution. Promoting walking and cycling to school will also correspond with being active and improving cleaner air, as those

living in disadvantages communities are more at risk to poor air quality and more likely to be in poorer health.

- ***Housing Developments*** – Part of new housing developments is to encourage promoting the use of bike or walking trips with segregated cycleways and pedestrian routes and the use of green corridors that creates a safe space for residents. An example of this is having better lit areas so that the spaces can be used after dark and allow for traffic movement in a way that reduces air pollution around the homes. Electrical charging points to be installed in all new housing developments.
- ***All Together Smokefree Knowsley Strategic Action Plan (September 2024)*** – A smokefree alliance, linking 3 working groups with priorities to strengthen regulations to create smoke-free, heated tobacco-free and vape-free environments, particularly in settings used by children & vulnerable groups - [All Together Smokefree Knowsley Strategic Action Plan - September 2024](#).
- ***Healthier Weight Strategy (HWS) 2025-2030*** which has a strong focus on improving outcomes for children and young people and action plans being delivered by partners across health, social care and voluntary sectors. Year 1 has been delivered with 82% of actions being started, completed and ongoing. A key part of the HWS is the new Healthy Schools Programme that commenced late 2024. The healthy schools lead works closely with the Council School Meals Team and all our 50 primary, and 2 special schools have signed up to the programme to change the school meal menus to increase healthy options for children. These changes also include working with schools to reduce food waste and increase recycling. Increasing active travel is also a part of the HWS.

More detail on these measures can be found in their respective Action Plans, ([Policies, plans and strategies | Knowsley Council](#)). The measures undertaken to ensure the council is tackling the key priorities outlined within the Air Quality Strategy and the Air Quality Strategy implementation plan are set out in Table 2.2 below. Completed measures are set out in Section 2.2 above.

Knowsley MBC expects the measures identified in Table 2.2 to be completed over the course of the next 5 years, with several projects / measures having a rolling programme. The priorities for the coming year are:

- Develop a school engagement programme to encourage active travel and raise awareness of poor air quality.
- Electric Vehicle Charging Infrastructure (EVCI)
- Anti idling campaign around schools and taxi ranks across the borough, school streets programme.

The principal challenges and barriers to implementation that Knowsley MBC anticipates facing are council officer time constraints and funding resources.

Table 2.1 – Progress on Measures to Improve Air Quality

*Knowsley MBC do not have an AQMA, the information provided in the table has been identified from the priorities stated within the Knowsley Air Quality Strategy 2024 – 2027 and detailed within the Air Quality Implementation Plan to ensure the priorities are addressed. Progress updated in red within the table.

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
Priority Air Quality Actions														
1	Develop a school engagement programme to encourage active travel and raise awareness of poor air quality.	Promoting Travel Alternatives	School Travel Plans	2024	Ongoing	LA Highways / Education / Culture	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improvement in Health	Promotion of the following: World Health Day 7 April 2025 Sustrans Big Walk and Wheel - 24 March - 04 April 2025 National Clean Air Month - 01-31 May 2025 Walk to School Week 19-23 May 2025 Cycling UK Bike Week - 09-15 June 2025 World Car Free Day 22 September 2025	Highways consultation exercise with targeted schools regarding travel restrictions with a view to implementing a trial in Spring 2025 – detailed above. Continue to promote and encourage schools to participate in the Walk Once a Week (WOW) programme. Engage with schools to determine their current active travel plan provisions via Modeshift. Idling awareness Day: 3 school visits- 150 leaflets were distributed, and officers positively observed parents reading the materials. No vehicles were seen idling near the schools during the visits. Highways secured funding to provide walk to school week resources to 9 WOW schools to support the campaign. Waste Recycling Engagement team have been attending schools across the borough to talk about the reduction of residual waste and the importance of recycling to lower harmful emissions that come from landfill and the burning of waste. A more structured programme is being developed with schools to meet Key Stage targets and improve education in the areas of Net Zero – continuing into 2026.	Sustrans Big Walk and Wheel Campaign - information was sent to all schools to register for the campaign. (24th March - 4th April) Environmental Health Team supported Idling Awareness Day by having a leaflet designed and carrying out school visits to Blacklow Brow, St Anne's, and Malvern Primary Schools. Officers engaged with parents and carers to raise awareness about the risks of engine idling. These coordinated efforts aimed to promote cleaner air around schools and within the wider community by reducing vehicle emissions and improving air quality, particularly in areas where vulnerable groups, such as children, are most at risk. School Streets - plans for cameras to be installed. Environmental Health are currently exploring the Clean Air Crew programme. It is a school-based initiative aimed at educating primary school children about air pollution and encouraging positive behaviour change through interactive learning and personal pledges. It's aimed at encouraging long-term behaviour change and empowering young people to become ambassadors for clean air in their schools and communities. Air Quality Information System Review (Joint initiative by DEFRA & UKHSA) recommends integrating air quality into school curricular.
2	Electric Vehicle Charging Infrastructure (EVCI)	Transport Planning and Infrastructure	Other policy	2025	On-going	Climate Team, Highways, Legal, Procurement and Policy Teams.	Local Electric Vehicle Infrastructure (LEVI) Capital funding to invest into EVCI via a regional contract.	Partial funding of £9,647,000 given to the Liverpool City Region Combined Authority (LCRCA)	Unknown at present	A cross authority LCR steering group has been set up to develop the delivery of a charging network across the LCR and to determine suitable approaches such as cross pavement solution trials.	NO ₂ (µg/m ³) reduction, achievement of NO ₂ annual mean air quality objective	Measure of EV uptake with Knowsley Residents / Businesses.	Significant highways support is required, due to charging points being on residential streets, feasibility checks are being undertaken on current proposed locations and a review of potential pavement channel charging equipment to assist residents without driveways to charge from home and address public liability risk, to mitigate risk for Council. The funding will be used to leverage private investment and is planned to deliver: • 63 locations for on street chargers 7kW-11kW. • 170 bays for LEVI funded charge points up to 22kW in public car	The approach to date is due to the reliance on external funding for the equipment, low car ownership in the Borough, limited EV uptake to date (though demand is increasing), risk of equipment obsolescence from technological change and the long-term contractual nature of engagement (20 years) with commercial charge point operators (CPOs). The LEVI scheme anticipates leveraging in commercial charge point operator investment in key sites, which will include Town Centre car parks as sustainable transport hubs with access to other modes of travel. An internal Electric Vehicle and Alternative Fuels steering group has been established to support development of the Electric Vehicle and Alternative Fuels Plan. The Electric Vehicle and Alternative Fuels Plan was finalised in 2025.

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
													parks and additional opportunities for the CPO to propose rapid/ultra rapid charging hubs. • 4 Spaces in 1 Merseyrail station car park in Knowsley that have potential for a mix of LEVI funded chargers up to 22kW. • 237 bays for 157 fast charges (within the LCR before leveraging in additional charging from CPO. To date in Knowsley, there are 22 publicly owned electric vehicle charging points available to the public. The projects above were delivered within 2024. Development of a policy position for Knowsley, working alongside the LCR to expand the network was undertaken during 2025. The LCR Combined Authority are currently procuring a Charge-Point operator to deliver the LEVI scheme for the LCR Authorities. Each LA will be required to enter into a host agreement with the appointed Charge-Point operator for several agreed sites. The Charge-Point operator can request further sites with the authority's agreement.	KMBC worked with Malvern Primary School, GB Energy and the Department for Education to secure funding to install Solar PV at Malvern Primary school producing 48.3MWh of solar generated energy each year with a predicted cost saving of £8,125 on energy bills annually. This equates to a 35% reduction in energy bills. Additionally, funding has been secured to install several EV Charge points across the school. Solar PV, LED lighting has also been installed at Park Brow Primary School, again funded through the Department for Education. Several Climate Action Workshops have been held by schools in partnership with Let's Go Zero to support schools in creating their own Net Zero and Climate Action Plans with transport being a main theme. The Net Zero Delivery Plan 2026-2030 has also been approved which sets out the actions the Council will undertake to make progress towards its Net Zero 2040 target, with transport being a Key Pillar. The Knowsley Place - Climate Delivery Plan 2025-2030 was also approved in 2030 and included several actions to reduce emissions from both transports and buildings including enabling the shift to electric vehicles.
3	School Streets initiative	Transport Planning and Infrastructure	Other policy	2025	Ongoing	Local Authority Highways and Capital Delivery, Environmental Health.	LA	Unknown	Unknown	Experimental Traffic Regulation Order	Reduced emissions around schools, NO ₂ (µg/m ³) reduction, achievement of NO ₂ annual mean air quality objective / health improvement of children.	Improvement in health Reduction from Emissions	A one-week trial, ahead of the experimental implementation, took place w/c 24th March 2025. The results of the trial are being assessed to determine what amendments are required to the proposals. The scheme was implemented for an 18-month experimental period commencing in September 2025. The initiative involves closing streets immediately outside school gates at drop-off and pick-up times to most vehicle traffic (there are exemptions for residents, blue badge holders, emergency services etc).	School street scheme went live on 2.9.25 under an Experimental Traffic Regulation Order. It aims to create safer and more pleasant environment for everyone around the school by encouraging walking, cycling and scooting or parking further away from the school and walk the last part of the journey and by preventing vehicles from entering specific roads around the vicinity of the school. The programme is to be implemented to more schools across the borough.
4	Continue to review current environmental permits associated with the release of substances to atmosphere in industrial premises in line with Government standards, take appropriate action on unauthorised processes when identified.	Environmental Permits	Measures to reduce pollution through IPPC Permits going beyond BAT	2024 (However, this has been undertaken for many years previously as a statutory activity)	Ongoing	Local Authority Environmental Health	LA / Private Sector	Partially Funded	Businesses pay for permit on a yearly basis. ~£10,000 Extra costs associated with staff time in relation to research, and review of permitting activities.	Implementation	Reduction in emissions from release of substances indoor / outdoor. Improvement in outdoor air quality and health of workers / residents.	Relevant inspection visits completed annually as scheduled. Carry out investigations to see if there are any unknown processes in the borough that require a permit.	There are 32 businesses within the borough that currently have environmental permits, of which 31 are active. These businesses are inspected as required by legislation and the frequency of the visits can change, depending on the sites risk assessment rating (low, medium or high.) Two new SIP processes have been identified within the borough. Officers are currently finalising the environmental permits for the installations.	Time / Staffing constraints. Trying to identify unknown businesses in the borough that require a permit.

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
5	Raise awareness of health impacts from burning for use as a heating source and from burning on allotments / industrial estates.	Public Information / Policy Guidance and Development Control	Via leaflets, and Air Quality Planning and Policy Guidance	2024	Ongoing	Local Authority Environmental Health, Communications, Public Health & Trading Standards	LA	Partially Funded	<£5k	Implementation	Reduced emissions from indoor / outdoor burning, improvement in health	Health figures of Knowsley residents. Number of leaflets / letters to residents / businesses. Review number of complaints associated with burning.	550 leaflets have been distributed in high footfall locations across the borough including: Libraries, leisure centres, medical centres and town centres. Environmental Health are also continuing to raise awareness during Healthy Homes Roadshows and Action Days as detailed below. Enforcement of Ready to Burn requirements as per Air Quality (Domestic Solid Fuels Standards) Regulations.	Clean air leaflet for households produced on indoor heat sources by Environmental Health. Article published on Knowsley News 19.12.24 Safe heating at home - Knowsley News Leaflet signed off and now available to view on updated website, https://www.knowsley.gov.uk/environment/environmental-health/air-pollution-and-air-quality/keep-it-clean Trading Standards commenced a screen-testing initiative focusing on the retail sale of wood for fuel in domestic open fires and stoves. there was an initial concern that the test devices were not working properly, however this was queried with the manufacturer who confirmed the devices were operating correctly and the results we were obtaining were correct. the initial survey project will continue with a view to being completed by end of February 2025; however, the market surveillance activity will continue throughout the year on an intel led basis. Project was completed following identification and inspection of 11 premises advertising and selling wood for use in domestic wood and multifuel stoves. Of the 11 premises inspected, 5 required officer intervention due to non-compliances being identified. These ranged from labelling requirements and / or registration with "Ready to Burn" scheme (3 premises) not being met, and 2 premises supplying wood that exceeded the 20% limit on moisture content.
6	Implementation of new borough wide Smoke Control Order	Policy Guidance and Development Control	Other policy	2025	2027	Local Authority Environmental Health	Defra and LA	Partially funded	£11k - £20k	Planning	Reduced emissions from indoor / outdoor burning	Review number of complaints associated with burning. Number of fixed penalty notices.	Determine whether whole borough should be declared as a smoke control area. Assess feasibility of outsourcing the revocation of existing smoke control areas and declaring the whole borough as a smoke control area.	Potential challenge from residents / businesses opposing smoke control areas. Time / Staffing. 2025: Quote of £12K received from consultant, however further work required including a borough wide survey, smoke complaint analysis, HIA and CBA which the LA officers would need to complete. A review is currently being undertaken on the benefits of making all the borough a smoke-controlled area, given the extensive work required compared to the number of smoke complaints and the statutory nuisance powers that can be used when not within a SCA.
7	Provision of EV infrastructure in new developments	Transport Planning and Infrastructure	Other	2022	On-going	Local Authority Transport Dept, Planning Dept.	Private sector	Not funded	Unknown	Planning	NO2 (µg/m³) reduction, achievement of NO ₂ annual mean air quality objective	Planning consent	New commercial and industrial developments require EV charging points as part of their new developments. Building Regulations, Part S which require new residential developments to provide charging points for electric vehicles are in force.	Delivered through private sector development. On-going as part of the planning application process.
8	Assisting with the development of workplace travel plans for both business and industry and further develop this support.	Promoting Travel Alternatives	Workplace Travel Planning	Start date unknown	Ongoing	Local Authority Highways and Planning	Private Sector	Not Funded	Unknown	Implementation	Reduction in emissions due to alternative travel set up.	The Sustainable Travel team will support workplace travel through developing and maintaining cycling maps with employment routes.	Ongoing	This is only relevant where a planning application is approved requiring a travel plan. Previously all businesses were offered the opportunity to access the mode shift online travel plan platform as funding was available via active travel capability. Despite widespread promotion of the offer, uptake was limited. The funding has now ceased.
9	Ensure air quality assessments are considered	Policy Guidance and	Air Quality Planning and	Start date unknown	Ongoing	Local Authority Planning and	Private Sector	Not Funded	Unknown	Implementation	Ensure NO ₂ levels do not increase in areas of new	Depending on the nature and scale of the development the Council may ask for an	Ongoing	Air Quality assessments are always requested when needed. It depends on the size and nature of the development. The need for one is assessed using the Institute of Air Quality Management (IAQM) document

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
	during planning applications and seek appropriate mitigation where necessary.	Development Control	Policy Guidance			Environmental Health					development s.	Air Quality Assessment (AQA) to be submitted as part of a planning application. The AQA will assess the impacts of the development and identify whether mitigation would be effective. Where relevant, require the submission of a construction management plan. Where relevant, require particulate matter emission controls in commercial kitchens.		"Land use Planning and Development Control; Planning for Air Quality". The IAQM document lists the criteria that need to be assessed against. Construction management plans in place. On-going as part of the planning application process.
10	Install automatic air quality monitoring stations to support current measures to monitor air quality within the borough and to help inform measures to reduce exposure to pollutants.	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2024	Ongoing	LA Environmental Health, Highways and Assets,	LA	Potentially LA funded	£100,000 to £200,000	Planning	Accurate air quality monitoring for the borough to enable calculation of NO ₂ local bias adjustment figures.	N/A	Officers have identified potential areas of concern where automatic monitors may be needed. As part of this identification process, a discussion with Highways on traffic numbers was undertaken and a review of the current placement of the nitrogen dioxide diffusion tubes we have in the borough was undertaken. To support the placement of new automatic monitoring stations a further 13 monitoring sites for diffusion tubes associated with the Highways traffic hotspot for assessment in 2026.	Review of the costs involved for the installation of Defra approved automatic air quality monitoring stations. We are also exploring the use of lower-cost air quality sensors as an alternative to DEFRA-approved continuous monitors, given the significant cost differences. While the data from these sensors would be considered indicative rather than regulatory, deploying them more widely could provide valuable additional coverage and help identify potential hotspots that warrant further investigation.
11	Encourage reduction in the idling of licensed vehicles	Traffic Management	Anti-idling enforcement	2024	Ongoing	LA Licensing / Liverpool City Region	LA / LCR	LA Funded	Unknown	Implementation	Reduction in emissions	Implement and adherence to statutory taxi and private hire vehicle standards.	Promoting National Idling Awareness Day – 21 May 2025 Work is continuing with LCR Licensing Managers to bring closer harmonisation of conditions for licensed vehicles based on updated suitability guidance and standards published by Department for Transport. this encourages a licensing regime that focuses on vehicle emissions - referencing Euro 5 and 6 compliant vehicles as being the desired benchmark for licensed vehicles.	Knowsley Licensing will be reviewing its vehicle licence conditions during the 2025 / 26 committee cycle. Idling awareness Day: 50 leaflets distributed to taxi drivers during badge collections and renewals. 20 leaflets distributed to taxi drivers at Asda's taxi rank in Huyton.
12	Moving Knowsley's own fleet over to zero emission fuels, developing a Green Fleet.	Promoting Low Emission Transport Vehicle Fleet Efficiency	Company Vehicle Procurement – Prioritising uptake of low emission vehicles Fleet efficiency and recognition schemes	2024	2025	Fleet and Logistics Service, LA	LA	Funded	Unknown	Implementing	Reduction in Emissions	Fleet replacement strategy will be completed during Q3 of 2024/2025. Additional charging infrastructure will be factored in when new EV vehicles are brought on to fleet. Training for technicians arranged for Q4 2024/2025.	Fleet replacement ongoing	Work was completed on improving the electric vehicle charging infrastructure at Stretton Way, doubling the number of charging points currently available. As part of the depot refurbishment plan, we are looking at the options of installing solar panels to provide power for the depot. The use of hydrotreated vegetable oil (HVO) is to be trialled this year across a variety of vehicles used across the fleet with the aim to roll this out across all the diesel fleet, reducing ghg emissions by up to 90%. The fleet replacement strategy has been completed, and all our fleet procurement exercises explore the option for the use of alternative fuel vehicles and plant.

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
														<i>Currently four technicians have completed an EV training course, with training ongoing for other staff.</i>
13	Encouraging Knowsley partners and contractors to make the change to zero emission fuels.	Promoting Low Emission Plant Promoting Low Emission Transport	Shift to installations using low emission fuels for stationary and mobile sources. Other	2024	Ongoing	LA Environmental Sustainability, Procurement, Highways and Licensing	LA	N/A	Unknown	Implementing	Reduction in Emissions	Signposting to maximise take up of EV infrastructure opportunities. Assessing Contractor's Net Zero capacity through tender review. Award new Highways service Contract which has targets for reducing Carbon through Construction processes. Encourage licensed vehicle proprietors and operators to utilise zero emission fuel vehicles where possible.	Climate Literacy Training is being developed for staff/schools, and this can be used with partners/businesses to increase awareness and benefits of Net Zero measures. <i>This work is currently ongoing.</i>	N/A
14	Developing the Knowsley Local Cycling and Walking Improvement Plan (LCWIP)	Policy Guidance and Development Control	Other policy Regional Groups Co-ordinating programmes to develop area wise strategies to reduce emissions and improve air quality.	2024	Ongoing	LA Highways	LA	LA Funded	Unknown	Implementing	Improvement in health Reduction of Emissions	Improvement in health Reduction from Emissions	<i>The LCWIP was formally adopted by Cabinet 24.9.25 link to article here</i>	N/A
15	Promote active travel and the use of public transport.	Promoting Travel Alternatives	Active travel campaign and infrastructure	2024	Ongoing	LA Communications, Public Health and Highways departments, Chamber of Commerce	LA	LA Funded	Unknown	Implementing	Improvement in health Reduction of Emissions	Staff Travel Plan promoted on internal intranet - includes information about car sharing, Merseytravel, loans for travel passes, and cycling. Walk to School Week 19-23 May 2025	A range of internal and external communication channels used to share updates on active travel and the use of public transport. Where appropriate, communications are shared with schools to cascade to pupils and parents via their newsletter, website, and social media channels. Continue to promote active travel through the Working Well programme with businesses engaged. <i>May 2025 - National Walk Month 19-23 May 2025 - Walk to School Week Comms promoted National Walking Month with information provided by EH and ESS with links to walking routes and free resources. Information was also promoted on Betha and Employer Wellbeing website.</i> https://www.knowsleynews.co.uk/walk-this-may/	<i>Comms for Clean Air Day - Knowsley News: - 83 Views, 1.3k Total reached (number of unique individuals that saw the content) - 1.3k impression count (total number of times the content was displayed) Walk this May! - Knowsley News 143 views - 2.4k Total reach and 2.6k Total impressions.</i>

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
													Active travel promoted as part of the Healthy Weight Strategy – Action Plan.	
16	Investigate opportunities for reducing emissions from non-road mobile machinery (NRMM) e.g. agriculture and landscape services.	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources.	2025	Q4 2025/2026	LA Environmental Health	LA Funded	LA Funded	<£1000	Planning	Reduction in Emissions	Reduction in NO2 across borough as measured in the ASR	To be planned	Look to draft a letter to arable and livestock farmers within the borough, making them aware of the potential impact on air quality due to the emissions arising from their non-road mobile machinery. We will advise of the importance to ensure all machinery is serviced and maintained regularly. Completion anticipated in 2026, reflecting existing workload and resource constraints
17	Develop Knowsley Council's Electric and Alternative Fuels Implementation Plan	Policy Guidance and Development Control	Other policy	2024/2025	2024/2025	LA Environmental Sustainability	LA Funded and Local Electric Vehicle Infrastructure Fund	Part funded	Unknown	Planning	Reduction in Emissions	N/A	EV Working Group will focus on developing the EVAF Action Plan and this will be finalised in 2025-26. July 25 - Update of current draft strategy has been undertaken and meetings put in to plan next steps. Working party has been brought together to finalise actions and set performance measures. The work is ongoing.	Maximise external grant funding resource to support residential charging (Local Electric Vehicle Infrastructure Fund) Prioritise charge point locations according to the determined hierarchy of need and subject to suitable site conditions and funding eligibility
18	Staff Travel Plan	Policy Guidance and Development Control	Other policy	2023	Ongoing	LA Environmental Sustainability, Communications	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improved Health	Internal communication channels are used to promote the staff travel plan including Bertha, Team Briefing, team meetings, Chief Executive's Staff Update and the Ask the Chief Executive Q/A sessions. These channels were used when the Staff Travel Plan was updated following a survey in November 2023.	Continued promotion of opportunities to staff for active travel (discounted bus passes, cycle to work mileage, Vivup EV opportunities, etc.)	N/A
19	Tree Planting and Bio Diversity Measures	Policy Guidance and Development Control	Other policy	2023	Ongoing	LA Environmental Sustainability	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improved Health	Supporting Bio-Diversity Net Gain implementation across Knowsley. This contributes to carbon capture and assisting air quality.	Programme of tree planting/woodland creation commenced 2023. Ongoing.	Tree planting will continue through woodland management practice (Finch Woods, in future *Whiston Woods - subject to St Helens MBC planning approval and site acquisition and creation of biodiversity net gain sites across the borough (some sites to have adverse possession, e.g. South Alt Greenway land parcel, Cyril Cook Park, etc).
20	Identify best practice for communication methods, improving green spaces and biodiversity.	Public Information	Other	2024	Ongoing	LA Environmental Sustainability / Communications / Public Health	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improved Health	Public Health indices	Promotion of greenspace investment/habitat creation Promote access and use of green spaces through the Physical Activity Promotion plan and Healthy Weight Strategy/Action Plan. Ongoing.	Using opportunities of public consultation for green infrastructure projects. Utilisation of Parks social media channel and all corporate comms channels.
21	Seek collaboration opportunities with partners	Public Information	Via leaflets, Internet, Other	2025	Ongoing	LA Communications / Environmental Health / Health	LA Funded / DEFRA	Part Funded	<£10,000	Implementing	Reduction in Emissions Improved Health	Public Health indices	Engaged with SAMHE to explore funding opportunities for a project that installs air quality monitors in schools. These monitors allow pupils	Promoting Clean Air Day 19 June 2025 – as detailed above.

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	and schools to promote indoor air quality actions.					and Safety / Education / Public Health							to interact with real-world data on their indoor environment and take initiative-taking steps to improve classroom air quality. Promoting campaigns with schools, Sustrans big wheel and walk which encourages active travel, reduces vehicle emissions around schools, and raises awareness about air pollution and the impacts.	<i>SAMHE project on hold due to staffing and exploration of funding programmes.</i>
22	Develop a co-ordinated communication strategy and delivery plan in line with national strategy at improving air quality in Knowsley.	Public Information	Via leaflets, Internet, Other	2024	Ongoing	LA Communications / Environmental Health / Waste / Trading Standards / Public Health / Health and Safety / Education	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improvement in Health	Public Health indices	Communications plan developed and regularly updated to reflect activity within the implementation plan, including promoting national days / local clean air campaigns. <i>Winter Comms Plan included: Sep 2025 - Knowsley news/socials promoting Healthy Homes roadshow and raising awareness on D&M. Oct 2025 - cycle to school week article in Knowsley news and information emailed to all schools including anti idling leaflet Oct 2025 - article raising awareness D&M Nov 2025 - Bonfire Night - Knowsley news (dangers of illegal waste burning and bin fires)</i>	<i>Air Quality Website updated. Air pollution and air quality Knowsley Council</i> <i>Information on website includes:</i> <i>What is air quality?</i> <i>Keep it clean – information on burning.</i> <i>Indoor Air Quality.</i> <i>Air Quality in Schools.</i> <i>Local Air Quality Management.</i> <i>Smoke Control Areas.</i> <i>What you can do to improve air quality.</i>
23	Produce communication s to raise awareness of indoor air pollutants and what measures can be taken to improve indoor air.	Public Information	Via leaflets, Internet, Other	2024	Ongoing	LA Communications / Environmental Health / Waste / Trading Standards / Public Health / Health and Safety / Education	LA Funded	LA Funded	Unknown	Implementing	Reduction in Emissions Improvement in Health	Public Health indices	Clean air leaflet for households shared on indoor heat sources. Fact sheet promoted through community action days and included on website. Emphasise messages about burning in gardens and recycling where possible. Emphasise messages about correct use of wood burners through implementation of Clean Air Act 1993 enforcement and Solid Fuel Regulations and communications. Advise on making use of ventilation with a balance between keeping properties warm to avoid mould, and keeping windows closed in any pollution events. Working with housing providers to ensure their housing stock has good ventilation and that government guidance regarding good air quality is circulated to all tenants. Healthy Homes project has been running since July 2024. EH website has been updated with information on damp and mould. Advice leaflets have been developed to raise awareness on damp and mould. These have been promoted via the council's comms channels.	Trading Standards have commenced test purchasing / screen testing exercise focusing on the sale of wood for use in domestic open fires and / or wood burning stoves, seeking compliance to the "Ready to Burn" scheme and maximum 20% moisture content. Further training identified for EH officers on indoor AQ to be completed by Q4. To continue: Identify vulnerable populations most exposed to poor indoor air quality and engage with them to work towards improved air through the 'Stop Spores, Open Doors, Don't Hesitate to Ventilate' campaign. In implementing the Minimum Level of Energy Efficiency standards, identify the dwellings with lowest ratings to support occupants over improving the efficiency and thus reducing the potential for mould spores and improving heating provision. <i>The wood burning leaflet has been uploaded to the council webpage.</i> <i>Healthy Homes roadshows provided direct indoor air quality messaging to residents and promoting behaviour change (ventilation, heating, smokefree environments).</i> <i>Clean Air Leaflet - tracking spreadsheet for high footfall locations. A total of 470 leaflets were distributed in thirteen locations across the borough and Environmental Health are continuing the roll out on action days and healthy homes roadshows.</i> <i>Public Health and Environmental Health are working collaboratively to pilot a Healthy Air for Healthy Lungs project in Knowsley. The aim of the pilot is to</i>

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
													Roadshows delivered indoor air quality advice on ventilation, damp and mould, heating practices, and smoke free environments. Vulnerable households were identified and referred for support through Environmental health, registered providers, citizens advice and smokefree Knowsley. This has helped raise awareness of indoor air pollutants and strengthen early intervention pathways. Seven 'Healthy Home' road shows have taken place across Knowsley as a 'drop' in for residents to report housing issues. There have been 502 resident conversations; fifty-three referrals or follow-up actions generated; multi-agency delivery including Environmental Health, Smoke Free Knowsley, Digital Inclusion, Healthy Knowsley Service, Healthwatch Knowsley, Volair, Energy efficiency, Citizens Advice, Transform Lives Company, Registered Providers, Social Prescriber, Family Connectors, and Credit Union. Training was provided on 7 Feb 2025 to 22 private landlords on damp and mould growth delivered by NRLA. Dec 2025 - Healthy homes article and UKHSA post about keeping warm and AQ Community engagement awareness raised through Healthy Homes Roadshows September 25 - February 26. Raised awareness on damp and mould, heating practices, smoke free behaviours. Energy Efficiency Officer attends ward action days/Healthy Home events to provide advice to residents. Healthy Air for Healthy Lungs Pilot under review	<i>Improve indoor air quality and reduce health impacts linked to poor ventilation and airborne pollutants, particularly in vulnerable households.</i> <i>This pilot builds on the success of a similar programme recently delivered in St Helens, which is now nearing completion. Early evaluation from St Helens has shown promising outcomes, including a reduction in asthma attacks in children, fewer GP visits, and a decline in hospital admissions related to respiratory issues.</i> <i>Discussions are ongoing regarding the most suitable public health programme to align the project with one potential option is to link it to the existing Smoke Free Homes initiative, which is already being delivered by Public Health and targets households with pregnant women or young children where smoking is present.</i>

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 Strategy¹, 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.

Knowsley Metropolitan Borough Council is taking the following measures to address PM_{2.5}:

- EarthSense Zephyr monitoring
- Any new continuous monitoring stations in Knowsley would include a PM_{2.5} monitor.
- Proposed installation of a particulate monitor to measure background PM_{2.5} as part of the Automatic Urban and Rural Network (AURN), in partnership with the Environment Agency, to assist in the expansion of the monitoring network to assess compliance against the new PM_{2.5} targets in England.
- Identify any developments that have the potential to increase PM_{2.5} levels through the planning regime and environmental permitting, and where necessary use conditions or enforcement to secure improvements. PM_{2.5} will be the focus of new planning applications and environmental permitting.

Section 2.2 details the continuing work Knowsley MBC are undertaking to improve the air quality of the borough, which will help reduce PM_{2.5}. Knowsley MBC are in the process of looking into the benefits of revoking the current designated Smoke Control Areas (SCA) within the borough and re-designating the whole borough as a Smoke Control Area. In 2025, the Environmental Health Department received thirty-eight complaints relating to dark smoke (10 in relation to burning waste at commercial premises; fifteen associated with burning waste at domestic premises and seven associated with smoke from a chimney /

¹ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

appliance). No financial penalties were issued within the smoke control areas, however warning letters were sent to the alleged offenders for all activities producing dark smoke.

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

This section sets out the monitoring undertaken within 2025 by Knowsley KMBC and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2021 and 2025 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Knowsley MBC did not undertake any automatic (continuous) monitoring within 2024, as the stations were decommissioned as discussed above. Table A.1 in Appendix A shows the historical information from the three automatic monitoring sites, previously monitored until September 2021.

The [We Care 4 Air](#) page presented the automatic monitoring results for Knowsley MBC and whilst there is no current data, due to the contract ending, the historic data is still available at the time of writing this report.

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

Knowsley MBC undertook non- automatic (i.e. passive) monitoring of NO₂ at 35 sites during 2025.

Table A.2 in Appendix A presents the details of the non-automatic sites.

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

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO₂)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³. 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 2025 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.

Previous reports identified an area of concern in Huyton at the junction of Whitefield Lane / Cronton Road. The same reports demonstrated that air quality in other parts of Huyton, monitored using the diffusion tubes, is good, and the results have been significantly below the NO₂ AQS objective. Taking this into account, in 2021, Knowsley moved five of the tubes which had previously shown no concerns and concentrated them around the Whitefield Lane / Cronton Road junction. The tables below (Old Diffusion Tube Locations and New Diffusion Tube Locations) indicate where Knowsley MBC stopped monitoring in 2021 and where we continue to monitor.

Environmental Health had received concerns from residents in areas of Prescott and Halewood, detailing an increase in traffic within the area, therefore in 2022, Knowsley MBC

moved 7 of the diffusion sites within Prescot (which had previously shown no concerns) to other roads within the area and included a further 3 sites within Halewood. The information is detailed in the tables below.

Table A.5 in Appendix A compares the ratified continuous monitored NO₂ hourly mean concentrations for the past five years with the air quality objective of 200µg/m³, not to be exceeded more than 18 times per year.

During 2025, all diffusion tube monitoring sites reported NO₂ values compliant with the NO₂ AQS objective, similar to that of 2024.

Old Diffusion Tube Locations (Huyton)

Site ID	Site Location	X OS Grid Ref (Eastings)	Y OS Grid Ref (Northing)	Comment
H5	LC001 Sevenoak Grove off Cronton Road	345675	389363	To assess impact of petrol station and traffic congestion nearby. Impact of Sevenoaks
H6	LC 023 on Cronton Road near junction with Wilson Road	345840	389407	To assess impact at Wilson Road / Cronton Road junction.
H7	LC 029 on Cronton Road near Tarbock Island	345996	389471	Assess impact at Tarbock Island on hotel and bus stop
H8	LC 005 on Cronton Road opposite Natruscot	345301	389479	To assess tailback of traffic approaching junction and potential impact on receptor at Natruscot
H9	LC 013 outside 29 Southford Road	345596	389180	A location away from the junction but potentially still impacted by M62

New Diffusion Tube Locations (Huyton)

Site ID	Site Location	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Comment
H5A	Positioned on drainpipe on side of house of 1 Whitefield Lane	345563	389397	To assess impact of the traffic congestion at the T-junction. Impact of receptor.
H6A	Traffic light column adjacent to 2 Whitefield Lane	345543	389390	To assess impact at Wilson Road / Cronton Road junction.
H7A	LC 011 outside of 2 Cronton Road	345503	389429	Assess impact at Wilson Road / Cronton Road junction.
H8A	LC 014 on Cronton Road on property line of 1 Whitefield Lane, just before Cymru Cronton Road.	345577	389394	Assess impact at Wilson Road / Cronton Road junction.
H9A	LC 001 outside 3 Whitefield Lane	345555	389392	Assess impact at Wilson Road / Cronton Road junction.

Old Diffusion Tube Locations (Prescot)

Site ID	Site Location	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Comment
P4	Stop sign on Leyland St junction with High St	346,669	392,875	Impact of junction of Leyland Street, High St & Hope Street
P5	LC010 Outside 49 High Street	346,757	392,916	Impact of junction of High St, Warrington Road, and St Helens Road
P6	LC 004 Outside 31 St Helens Road	346,831	393,005	Impact of petrol station and bus stop

P7	LC005 Oliver Lyme Road near Tinling Close	347,091	392,729	Traffic queuing for Warrington Road. Customer complaint.
P8	LC070 Outside 81 Warrington Road	347,090	392,570	Traffic queuing for roundabout impacting on flats
P9	Traffic signal Outside 53 Kemble Street	346,788	392,648	Traffic queuing on Kemble St for Aspinall St junction
P10	LC008 Outside Greenall Court, Sewell Street	346,584	392,609	Properties close to street and any impact of Shakespeare North

New Diffusion Tube Locations (Prescot)

Site ID	Site Location	X OS Grid Ref (Eastings)	Y OS Grid Ref (Northing)	Comment
P4A	LC017 Outside 23 Steley Way, opposite McDonalds	346,942	392,387	Traffic increase on Steley Way, at round about to shopping complex.
P5A	LC013 Outside apartments on Steley Way, opposite roundabout	346,898	392,367	Traffic increase on Steley Way, at round about to shopping complex.
P6A	LC 009 Outside apartments on Steley Way, opposite roundabout	346,850	392,360	Traffic increase on Steley Way, at round about to shopping complex.
P7A	LC012 near to 89 Cross Lane	346,799	391,419	Traffic increase on Cross Road, cars not reducing speed over speed bumps. Complaints received of increase in traffic.

P8A	LC019 116 Cross Lane, Corner of junction with Saunders Avenue	346,792	391,617	Traffic increase on Cross Road, cars not reducing speed over speed bumps. Complaints received of increase in traffic.
P9A	LC012 Outside 39 Delph Lane	347,950	392,325	Complaints received of increase in traffic.
P10A	LC051 Outside 115 and 117 Warrington Road	347,393	392,307	Complaints received of increase in traffic.

New Diffusion Tube Locations (Halewood)

Site ID	Site Location	X OS Grid Ref (Eastings)	Y OS Grid Ref (Northing)	Comment
HW1	LC01 Outside 139 Roseheath Drive, Halewood	344,843	385,022	Increase in vehicle movement due to commercial area.
HW2	LC023 Outside 140 Leathers Lane, Halewood	344,827	385,202	Increase in vehicle movement due to commercial area.
HW3A	LC003, at side of bus station, off Hillingden Avenue	344,927	385,128	Bus station close to houses.

In 2025, all sites in Huyton and Halewood were below the NO₂ concentrations compared with 2024. Within Kirkby two sites (K8, K10) recorded very slight increases, with two sites (K3, K7) not changing levels, and one site within Prescott (P2) recording a slight increase. All the results for these sites were significantly below the NO₂ AQS objective when the national bias adjustment factor was applied. The increase in the level in Huyton, Kirkby and Prescott, when compared to previous years, may be due to the construction of new housing developments and industrial premises next to the diffusion tube sites. We will continue to monitor using diffusion tubes in this area in 2026.

Huyton

The monitoring results in Huyton in 2025, when compared against the previous year, show decreases in concentrations in all of diffusion tube monitoring sites. All sites are significantly below the 10% of the 40 µg/m³ AQS objective.

Kirkby

Monitoring in Kirkby (2021) showed that site K1a/b reported an NO₂ concentration within 10% of the AQS objective of 39.1 µg/m³, although following the fall-off with distance correction, the NO₂ concentration was significantly below the AQS objective, reporting a concentration of 27.1 µg/m³. For 2022 to 2025, the site reported a decrease in NO₂ concentrations, the result did not fall within 10% of the AQS objective. All but two sites, K8 and K10, showed a decrease compared with the year 2024. K8 and K10 showed a slight increase. All sites are significantly below the 10% of the 40 µg/m³ AQS objective.

Prescot

No monitoring sites reported concentrations within 10% of the AQS. In 2025, all sites, with the exception of P2, showed a decrease in the NO₂ concentration. P2 showed a slight increase in NO₂ concentration. Given only one site showed a slight increase in 2025 is an improvement on 2024, where 5 sites had shown an increase in NO₂ concentration when compared to the previous year.. All sites are significantly below the 10% of the 40 µg/m³ AQS objective.

Halewood

Within the first year of monitoring (2022), site HW3Aa/b reported concentrations within 10% of the AQS (36.1 µg/m³), however in preceding years the concentrations were lower. In 2025, there was a slight decrease in NO₂ concentrations at all sites compared to 2024. All sites are significantly below the 10% of the 40 µg/m³ AQS objective. NO₂ concentrations will still be closely monitored at these locations.

Automatic Monitoring Stations

The three automatic monitoring stations within Knowsley captured data from 2018 – 2021 (Knowsley MBC do not monitor now due to contract termination with [We Care 4 Air](#)). Within this period all three stations reported an increase in annual NO₂ concentrations from 2020.

The Kirkby monitoring station over the previous three years showed an increasing trend in concentrations. Huyton showed an increase in results from 2018 – 2019, a decrease in 2020 due to COVID – 19, followed by an increase in 2021, with a concentration similar to the pre-pandemic levels. For Halewood there was no clear trend, but the results for the past 4 years are significantly below the AQS objective and not of a concern. The 1-hour mean for NO₂ was not exceeded in 2021, maintaining the trend seen over the last four years.

EarthSense Zephyr Sensors

In 2025, NO₂ levels were also monitored at various locations using EarthSense Zephyr Sensors. Whilst it is recognised that these sensors are not Defra approved and the information is indicative only, our results have been discussed below.

NO₂ did not exceed 200µg/m³ (1 hour mean) at any time during the monitoring period. The annual mean was calculated for each site and it did not exceed the 40µg/m³.

There was a decrease in NO₂ from the previous year (2024) for all the monitors.

See Appendix C and D for further information.

3.2.2 Particulate Matter (PM₁₀)

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM₁₀ annual mean concentrations for the past five years with the air quality objective of 40µg/m³.

Table A.7 in Appendix A compares the ratified continuous monitored PM₁₀ daily mean concentrations for the past five years with the air quality objective of 50µg/m³, not to be exceeded more than thirty-five times per year.

As continuous monitoring ceased in 2021, PM₁₀ data is available only for our Kirkby site for that year.

In 2025, PM₁₀ levels were monitored at various locations using EarthSense Zephyr Sensors. Whilst it is recognised that these sensors are not Defra approved, and the information is indicative only, the results showed that the PM₁₀ level did not exceed 50µg/m³ (24 hour mean) at any time during the monitoring period, with one peak identified within the Kirkby

monitoring sites on the 5th November 2025, between 19:00 and 21:00 of values $>100 \mu\text{g}/\text{m}^3$. The annual mean was calculated for each site, and it did not exceed the $40\mu\text{g}/\text{m}^3$ objective. See Appendix C and D for further information.

3.2.3 Particulate Matter (PM_{2.5})

In 2025, PM_{2.5} levels were monitored at various locations using EarthSense Zephyr Sensors. Whilst it is recognised that these sensors are not Defra approved, and the information is indicative only. The results showed that the PM_{2.5} level did not exceed $20\mu\text{g}/\text{m}^3$ (annual mean).

See Appendix C and D for further information.

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) ^(1,2)	Distance to kerb of nearest road (m) ⁽¹⁾	Inlet Height (m)
Huyton	Cronton Road, Huyton	Roadside	345552	389413	NO ₂ , PM ₁₀ *, PM _{2.5} *	NO	N/A	Chemiluminescent, TEOMS*	18	2	2
Halewood	Higher Road, Halewood	Roadside	345213	384691	NO ₂ , PM ₁₀ *, PM _{2.5} *	NO	N/A	Chemiluminescent, TEOMS*	10	2	2
Kirkby	Old Rough Lane, Kirkby	Roadside	341414	398991	NO ₂ , PM ₁₀ *	NO	N/A	BAMS	15	1	2.4

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)

(3) The TEOMS particular matter data (*) from 2020 was unable to be validated against the volatile correction model and is therefore not reported

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)
H1a, H1b	Station co-location	Roadside	345552	389413	NO2	No	3.6	2.2	No	2.5
H2a, H2b	Outside 2 Whitefield Lane	Roadside	345537	389407	NO2	No	1.5	1.2	No	2.4
H3a, H3b	Outside 1 Whitefield Lane	Kerbside	345563	389399	NO2	No	2.8	0.8	No	2.3
H4a, H4b	Opp Smithford Walk	Roadside	345517	389329	NO2	No	3.8	1.3	No	2.4
H5Aa, H5Ab	Positioned on drainpipe on side of house of 1 Whitefield Lane	Roadside	345563	389397	NO2	No	0.2	2.9	No	2.2
H6Aa, H6Ab	Traffic light column adjacent to 2 Whitefield Lane	Kerbside	345543	389390	NO2	No	5.6	0.5	No	2.3
H7Aa, H7Ab	LC 011 outside of 2 Cronton Road	Roadside	345503	389429	NO2	No	5.3	1.5	No	2.4
H8Aa, H8Ab	LC 014 on Cronton Road on property line of 1 Whitefield Lane, just before Cymru Cronton Road.	Roadside	345577	389394	NO2	No	9.5	1.9	No	2.4
H9Aa, H9Ab	LC 001 outside 3 Whitefield Lane	Roadside	345555	389392	NO2	No	2.8	1.6	No	2.3
H10a, H10b	Outside 9 Ribchester Way	Suburban	345424	389325	NO2	No	4.9	1.6	No	2.2
H11a, H11b	Outside 12 Windy Arbor Brow	Suburban	346329	389782	NO2	No	3.1	1.9	No	2.2
H12a, H12b	Halsnead development	Roadside	346425	389669	NO2	No	-	2.4	No	2.5
K1a, K1b	LC056A Junction of M57 and Valley Road	Roadside	340355	397795	NO2	No	15.9	1.6	No	2.3
K2a, K2b	LC006 Outside Kirkby C of E School, Hall Lane	Roadside	341165	398953	NO2	No	13.5	6.4	No	2.4
K3a, K3b	LC005 outside 12 Hall Drive	Roadside	341317	399000	NO2	No	8.1	1.6	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)
K4a, K4b	LC021 to rear of 12 Brakenhurst Grove	Roadside	341464	398997	NO2	No	10.1	3.0	No	2.4
K5a, K5b	LC091 Junction of Old Rough Lane and County Road	Roadside	341407	398988	NO2	No	20.3	3.2	No	2.4
K6a, K6b	LC085 On County Road near 18 Kelday Close	Roadside	341426	398922	NO2	No	8.9	1.1	No	2.4
K7a, K7b	LC067 Corner of County Road and Webster	Roadside	341576	398654	NO2	No	6.6	1.4	No	2.4
K8a, K8b	LC002 Outside Webster Drive	Roadside	341371	398537	NO2	No	10.6	1.3	No	2.4
K9a, K9b	LC 017 on Cherryfield Drive	Roadside	341387	398504	NO2	No	5.4	0.9	No	2.4
K10a, K10b	Outside 19 Moorgate Road (A5207)	Roadside	342421	397755	NO2	No	1.4	6.9	No	2.4
P1a, P1b	LC227 Near Liverpool Road	Roadside	345816	392660	NO2	No	6.9	3.5	No	2.4
P2a, P2b	LC003 Outside 50 Derby Street	Roadside	346164	392807	NO2	No	0.6	2.0	No	2.4
P3a, P3b	LC014 Adjacent 2 Stanley Crescent	Roadside	346393	392844	NO2	No	5.6	3.0	No	2.4
P4Aa, P4Ab	LC017 Outside 22 Steley Way, opposite McDonalds	Roadside	346942	392387	NO2	No	4.2	1.5	No	2.4
P5Aa, P5Ab	LC013 Outside apartments on Steley Way, opposite roundabout	Roadside	346898	392367	NO2	No	4.3	1.8	No	2.4
P6Aa, P6Ab	LC009 Outside apartments on Steley Way, opposite roundabout	Roadside	346850	392360	NO2	No	5.5	1.7	No	2.4
P7Aa, P7Ab	LC012 near to 89 Cross Lane	Roadside	346799	391419	NO2	No	10.2	1.5	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)
P8Aa, P8Ab	LC019 116 Cross Lane, corner of junction with Saunders Avenue	Roadside	346792	391617	NO2	No	7.7	2.4	No	2.4
P9Aa, P9Ab	LC012 Outside 39 Delph Lane	Roadside	347950	392325	NO2	No	7.2	3.1	No	2.2
P10Aa, P10Ab	LC051 Outside 115 and 117 Warrington Road	Roadside	347393	392307	NO2	No	5.8	2.0	No	2.2
HW1a, HW1b	LC014 Outside 139 Roseheath Drive, Halewood	Roadside	344843	385022	NO2	No	8.5	3.0	No	2.4
HW2a, HW2b	LC023 Outside 140 Leathers Lane Halewood	Roadside	344827	385202	NO2	No	4.5	3.6	No	2.3
HW3Aa, HW3Ab	LC003 at side of bus station, off Hillingden Avenue	Roadside	344927	385128	NO2	No	3.9	2.5	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 NO₂ Monitoring Results: Automatic Monitoring (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
Huyton	345552	389413	Roadside	72.5	-	36	-	-	-	-
Halewood	345213	384691	Roadside	74.5	-	21.4	-	-	-	-
Kirkby	341414	398991	Roadside	73.4	-	30.8	-	-	-	-

☒ **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 NO₂ 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/m³.

Exceedances of the NO₂ annual mean objective of 40µg/m³ 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 conducted for part of the year.

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

Table A.4 – Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

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 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
H1a, H1b	345552	389413	Roadside	98.6	98.6	34.4	28.4	24.9	24.5	22.9
H2a, H2b	345537	389407	Roadside	98.6	98.6	38.2	30.1	29.0	27.1	24.6
H3a, H3b	345563	389399	Kerbside	98.6	98.6	46.7	39.3	33.6	33.0	27.4
H4a, H4b	345517	389329	Roadside	98.6	98.6	30.1	25.0	21.5	20.0	19.7
H5Aa, H5Ab	345563	389397	Roadside	98.6	98.6	38.1	31.4	28.1	25.7	23.1
H6Aa, H6Ab	345543	389390	Kerbside	98.6	98.6	45.4	36.7	32.4	31.1	26.9
H7Aa, H7Ab	345503	389429	Roadside	98.6	98.6	33.1	25.7	24.0	24.4	21.5
H8Aa, H8Ab	345577	389394	Roadside	98.6	98.6	46.9	34.4	30.1	29.7	26.0
H9Aa, H9Ab	345555	389392	Roadside	98.6	98.6	36.5	30.3	26.7	26.7	21.6
H10a, H10b	345424	389325	Suburban	98.6	98.6	22.2	18.5	15.3	15.6	14.7
H11a, H11b	346329	389782	Suburban	98.6	98.6	21.9	21.6	22.4	21.3	19.7
H12a, H12b	346425	389669	Roadside	98.6	98.6	35.9	28.7	26.3	25.8	23.2

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 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
K1a, K1b	340355	397795	Roadside	98.6	98.6	33.3	34.0	31.5	29.7	27.2
K2a, K2b	341165	398953	Roadside	98.6	98.6	20.1	19.6	16.6	16.5	15.5
K3a, K3b	341317	399000	Roadside	98.6	98.6	19.8	20.1	17.7	16.8	16.8
K4a, K4b	341464	398997	Roadside	89.1	89.1	26.3	23.6	20.7	21.7	19.9
K5a, K5b	341407	398988	Roadside	98.6	98.6	28.1	28.9	26.2	25.0	23.4
K6a, K6b	341426	398922	Roadside	98.6	98.6	26.6	28.7	26.4	25.4	25.2
K7a, K7b	341576	398654	Roadside	98.6	98.6	21.7	20.0	18.7	17.7	17.7
K8a, K8b	341371	398537	Roadside	98.6	98.6	25.8	24.7	22.8	19.8	20.1
K9a, K9b	341387	398504	Roadside	91.0	91.0	27.1	28.6	24.3	22.7	22.6
K10a, K10b	342421	397755	Roadside	98.6	98.6	22.9	20.6	19.8	17.7	17.8
P1a, P1b	345816	392660	Roadside	89.1	89.1	25.1	21.9	21.5	22.7	19.8
P2a, P2b	346164	392807	Roadside	98.6	98.6	25.6	22.4	20.3	20.0	21.2
P3a, P3b	346393	392844	Roadside	98.6	98.6	25.7	24.9	25.1	25.3	19.2

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 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
P4Aa, P4Ab	346942	392387	Roadside	88.8	88.8		23.5	21.4	21.5	19.6
P5Aa, P5Ab	346898	392367	Roadside	88.8	88.8		20.4	19.0	17.7	17.5
P6Aa, P6Ab	346850	392360	Roadside	98.6	98.6		21.1	19.0	18.7	17.0
P7Aa, P7Ab	346799	391419	Roadside	98.6	98.6		17.9	16.2	17.1	15.3
P8Aa, P8Ab	346792	391617	Roadside	89.1	89.1		17.9	16.0	16.0	14.7
P9Aa, P9Ab	347950	392325	Roadside	98.6	98.6		24.0	22.3	21.7	18.2
P10Aa, P10Ab	347393	392307	Roadside	98.6	98.6		18.6	18.6	18.7	17.2
HW1a, HW1b	344843	385022	Roadside	98.6	98.6		15.7	15.2	15.2	14.1
HW2a, HW2b	344827	385202	Roadside	98.6	98.6		20.5	20.6	20.5	19.2
HW3Aa, HW3Ab	344927	385128	Roadside	98.6	98.6		36.1	33.0	31.7	27.1

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

☒ Diffusion tube data has been bias adjusted.

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

Notes:

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

Exceedances of the NO_2 annual mean objective of $40\mu\text{g}/\text{m}^3$ are shown in **bold**.

NO_2 annual means exceeding $60\mu\text{g}/\text{m}^3$, 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 conducted for part of the year.

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

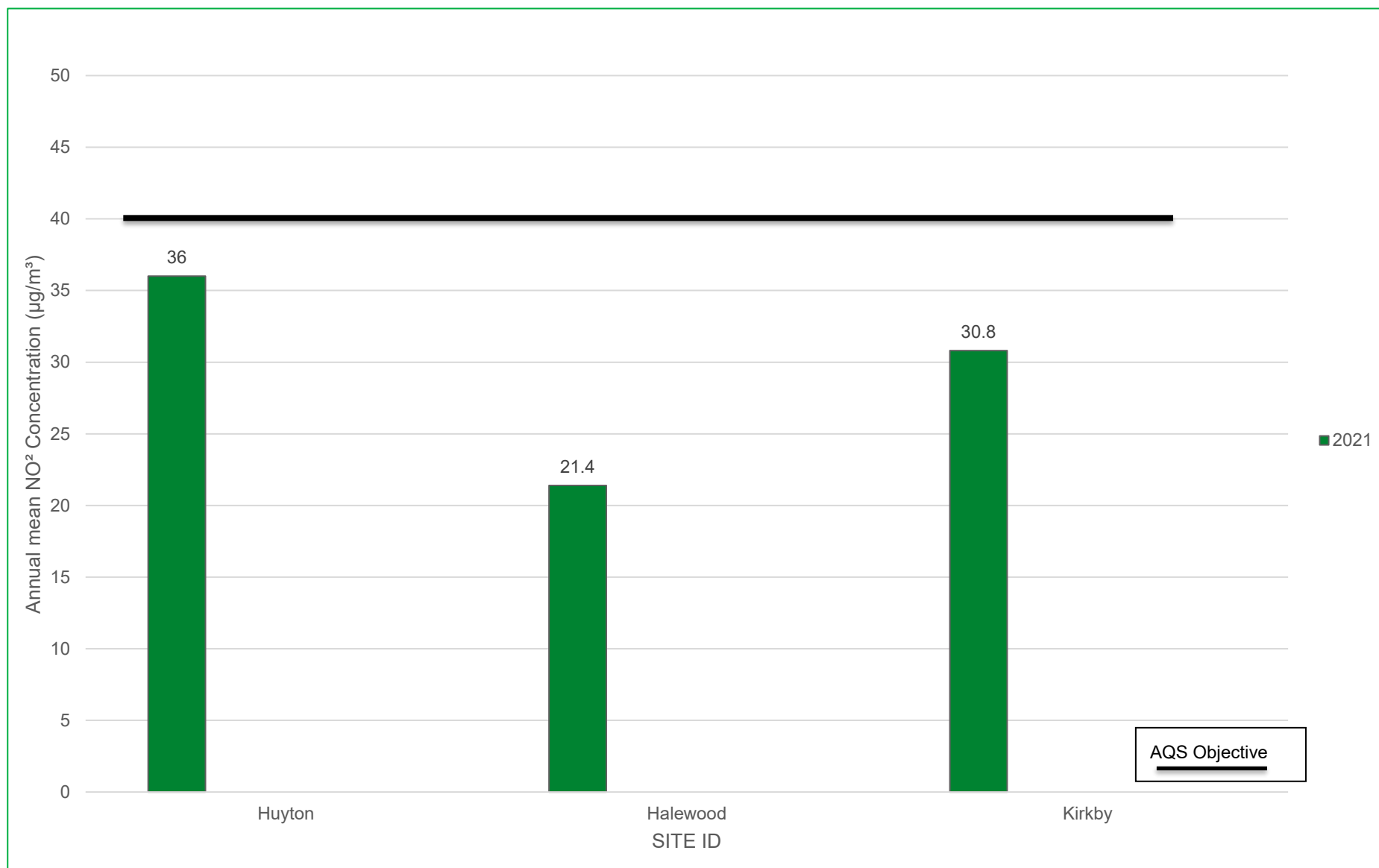
Figure A.1 – Trends in Annual Mean NO₂ Concentrations

Figure A.2 – Trends in Annual Mean NO₂ Concentrations (Diffusion Tubes) (Huyton)

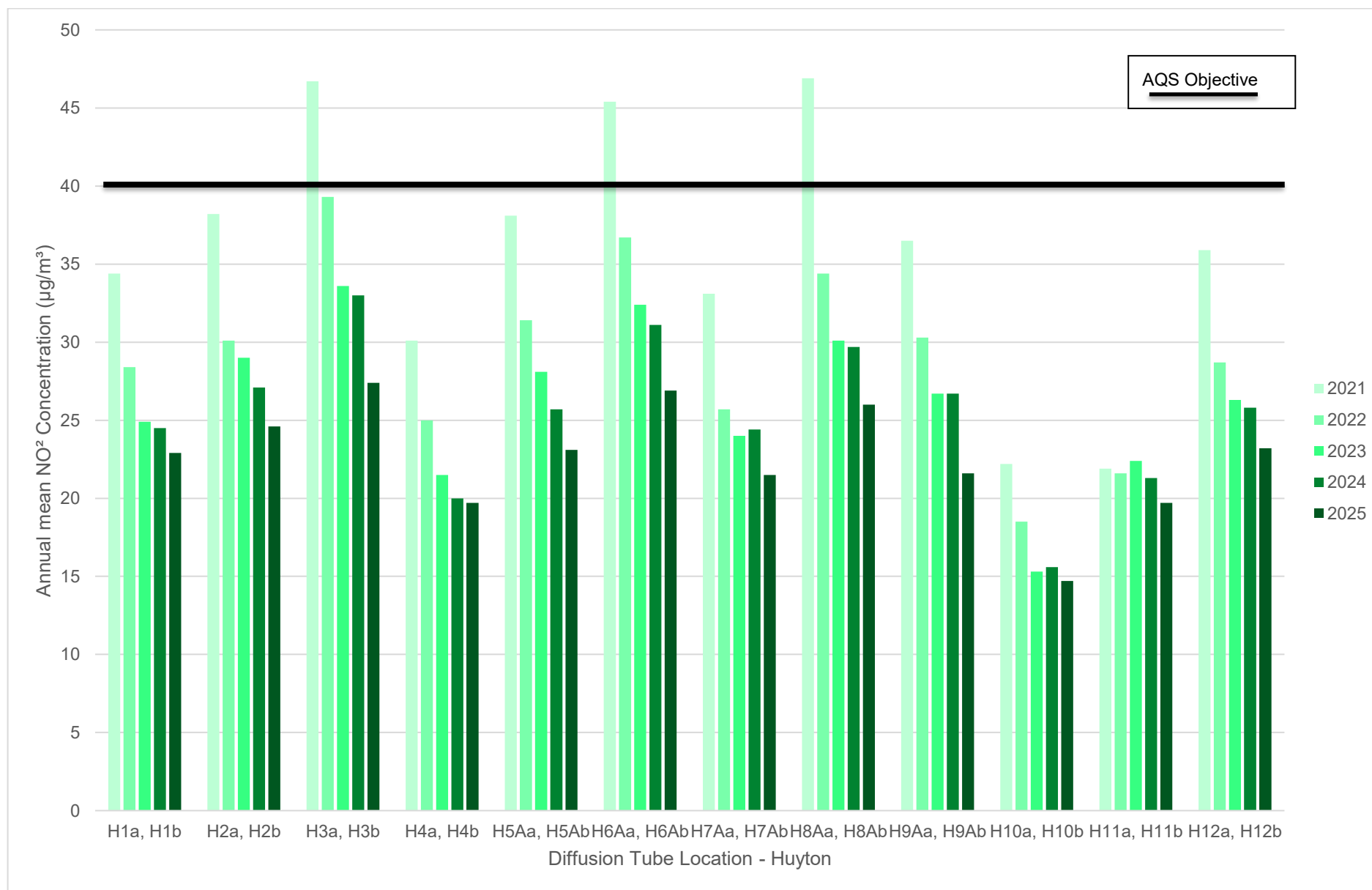


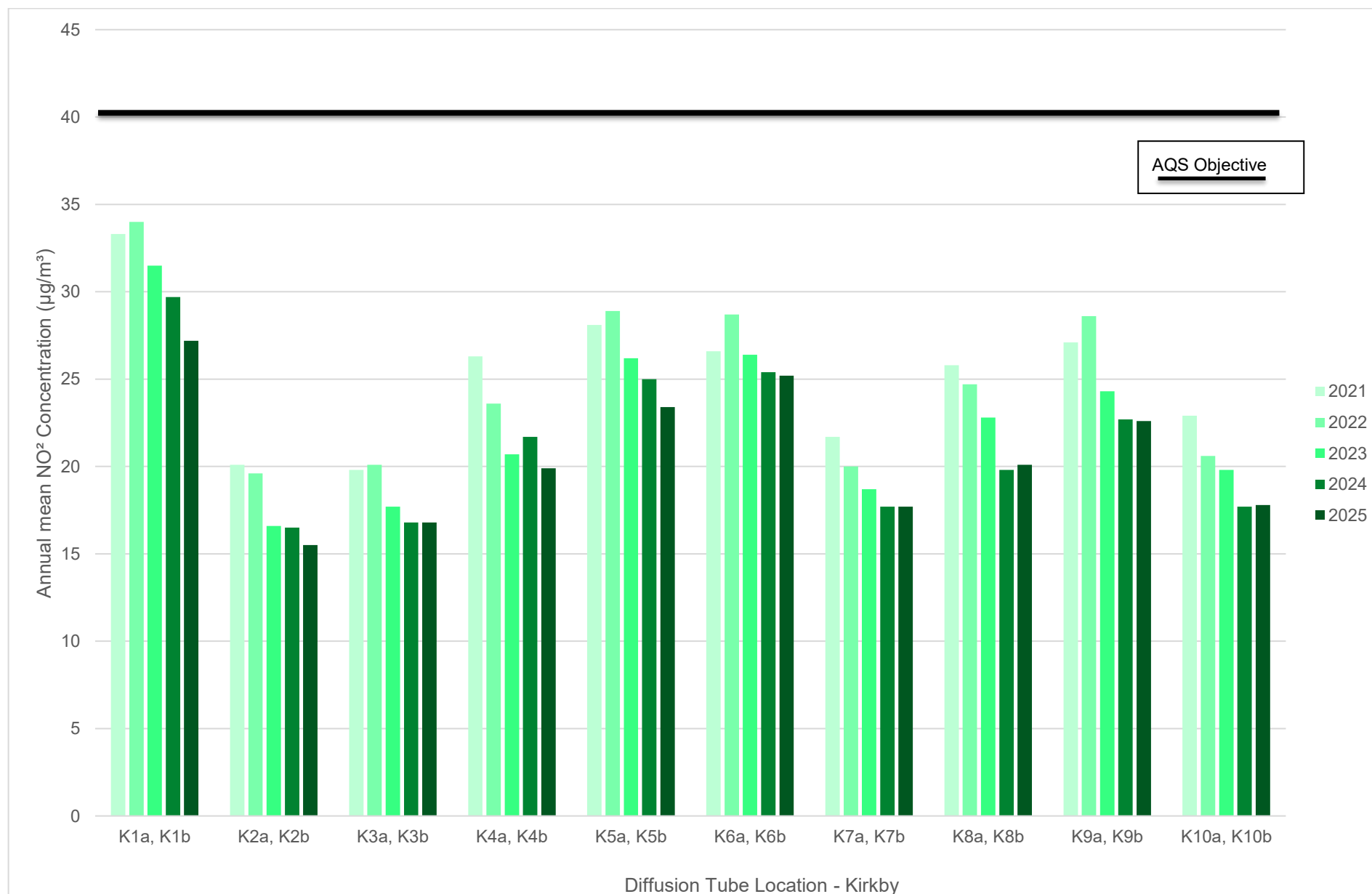
Figure A.3 – Trends in Annual Mean NO₂ Concentrations (Diffusion Tubes) (Kirkby)

Figure A.4 – Trends in Annual Mean NO₂ Concentrations (Diffusion Tubes) (Prescot)

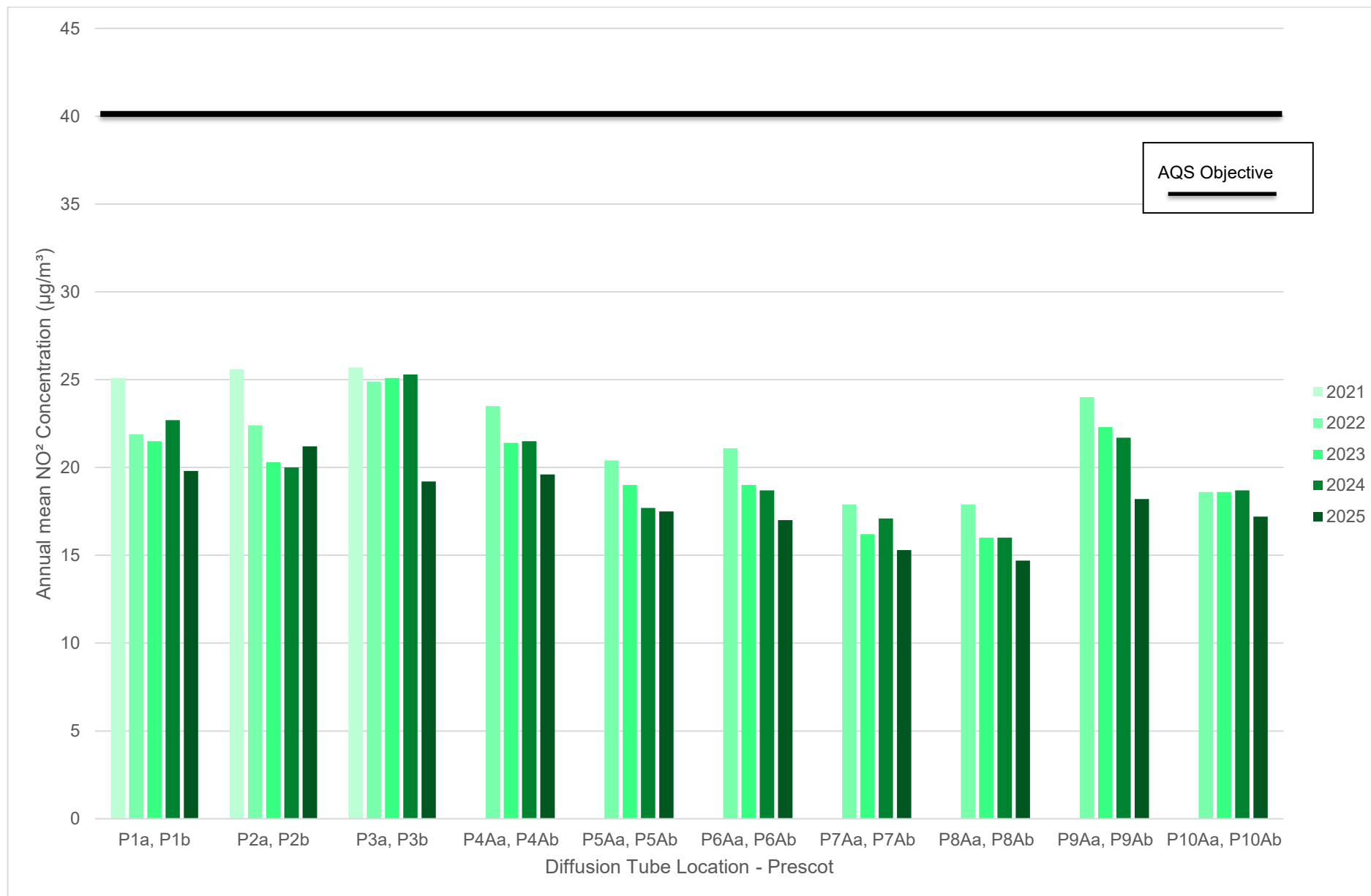


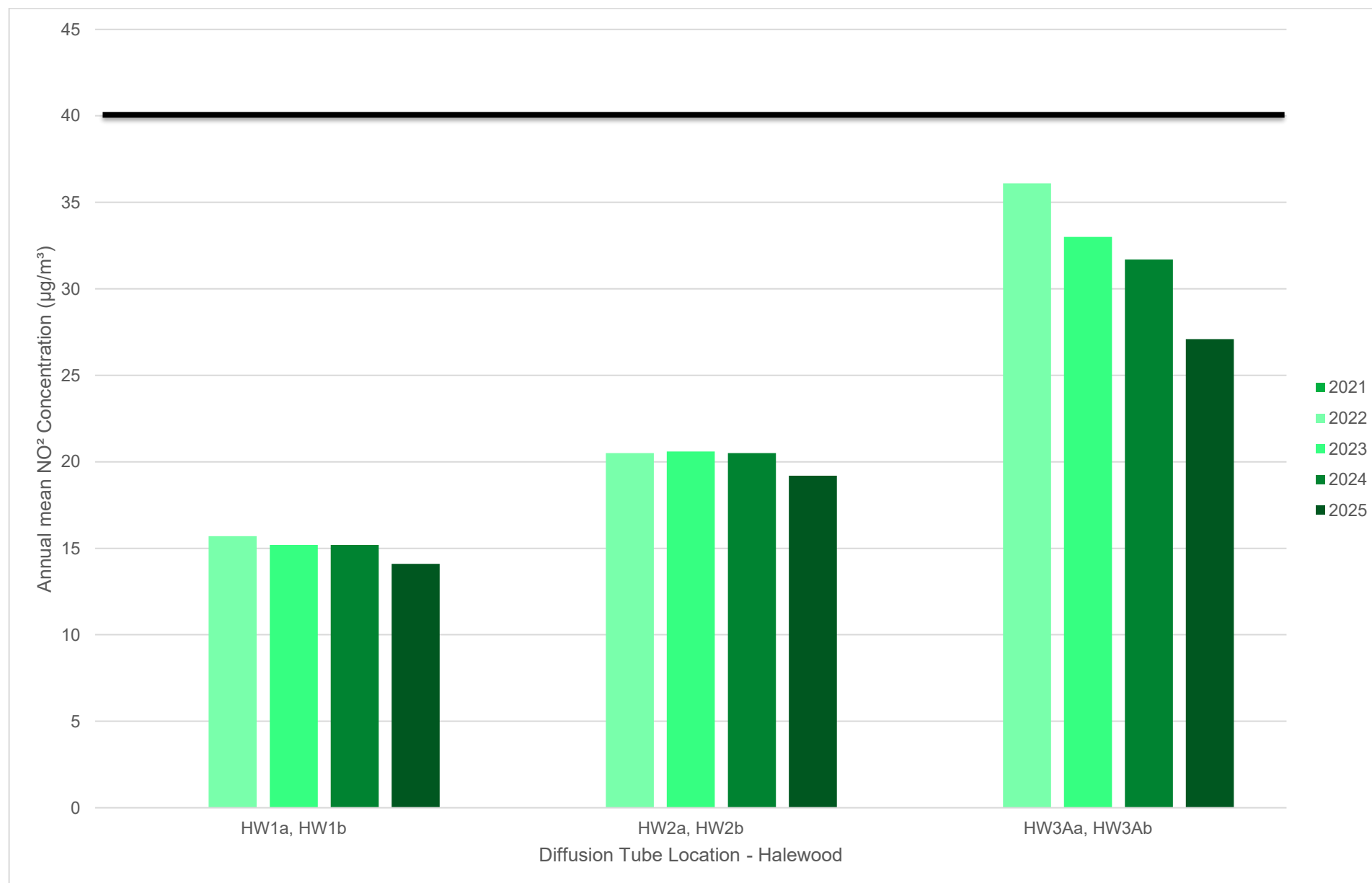
Figure A.5 – Trends in Annual Mean NO₂ Concentrations (Diffusion Tubes) (Halewood)

Table A.5 – 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
Huyton	345552	389413	Roadside	72.5	-	0 (119)	-	-	-	-
Halewood	345213	384691	Roadside	74.5	-	0 (74)	-	-	-	-
Kirkby	341414	398991	Roadside	73.4	-	0 (113)	-	-	-	-

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ 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 conducted for part of the year.

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

Table A.6 – Annual Mean PM₁₀ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
Huyton	345552	389413	Roadside	63.8	-	-	-	-	-	-
Halewood	345213	384691	Roadside	74.5	-	-	-	-	-	-
Kirkby	341414	398991	Roadside	69.1	-	32.2	-	-	-	-

☒ **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/m³.

Exceedances of the PM₁₀ annual mean objective of 40µg/m³ 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 conducted for part of the year.

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

Figure A.6 – Trends in Annual Mean PM₁₀ Concentrations

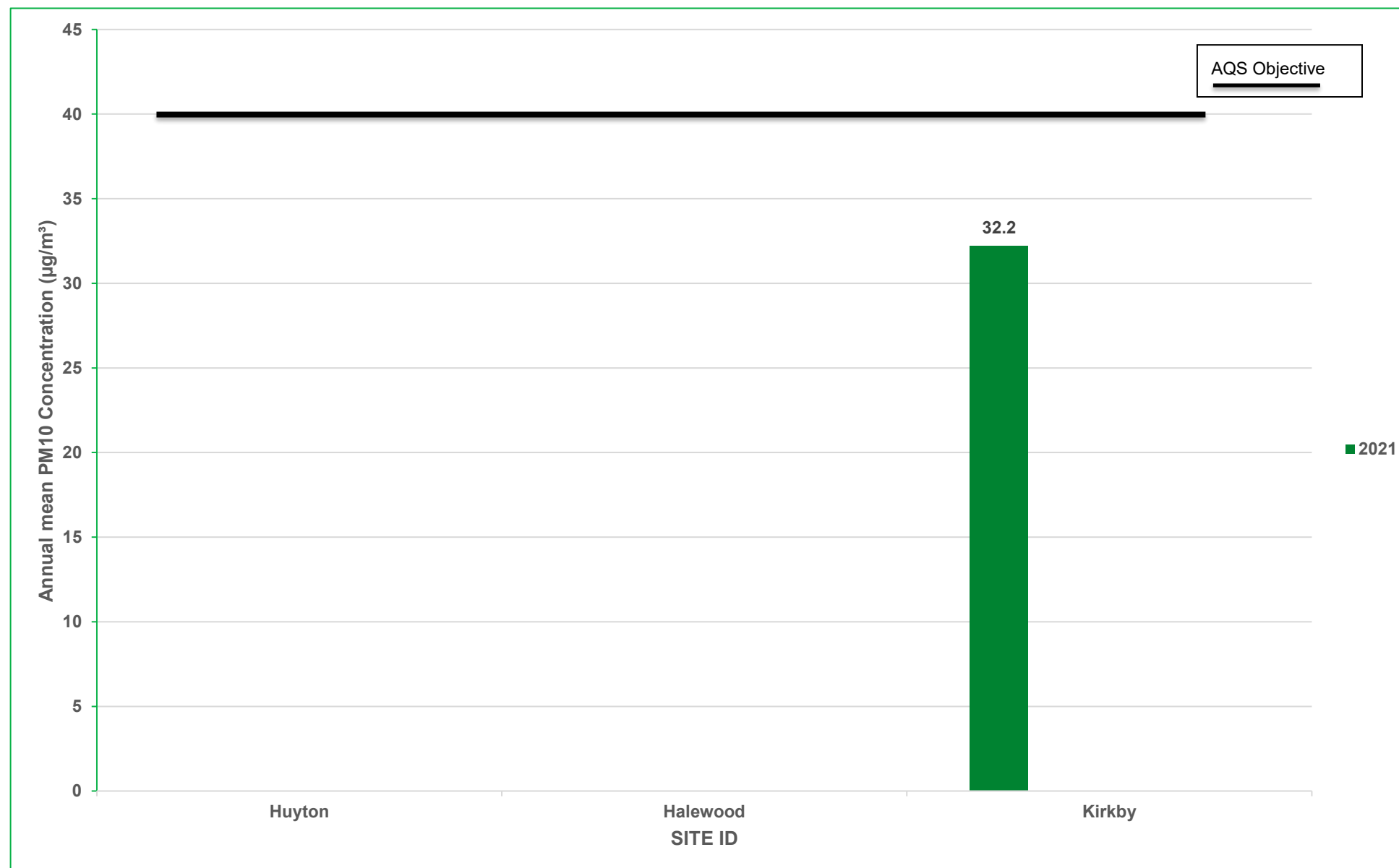


Table A.7 – 24-Hour Mean PM₁₀ Monitoring Results, Number of PM₁₀ 24-Hour Means > 50µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
Huyton	345552	389413	Roadside	63.8	-	-	-	-	-	-
Halewood	345213	384691	Roadside	74.5	-	-	-	-	-	-
Kirkby	341414	398991	Roadside	69.1	-	18 (48)	-	-	-	-

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

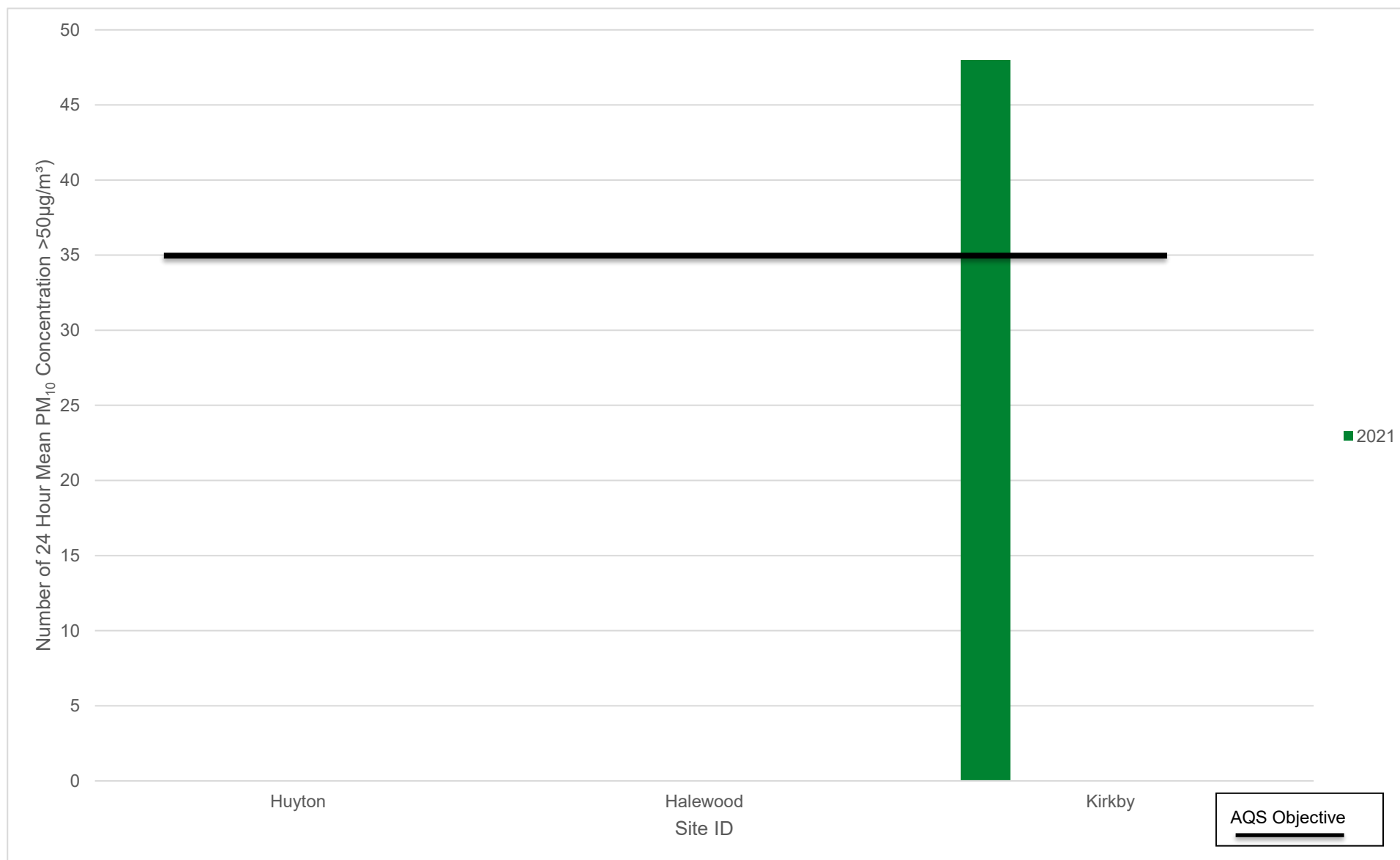
Exceedances of the PM₁₀ 24-hour mean objective (50µg/m³ not to be exceeded more than 35 times/year) are shown in **bold**.

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

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

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

Figure A.7 – Trends in Number of 24-Hour Mean PM₁₀ Results > 50µg/m³



Appendix B: Full Monthly Diffusion Tube Results for 2025

Table B.1 – NO₂ 2025 Diffusion Tube Results (µg/m³)

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 (µg/m ³)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
H1a	345552	389413	41.7	41.2	29.2	31.8	26.2	21.1	18.7	26.6	23.3	30.6	35.4	29.2	-	-		Duplicate Site with H1a and H1b - Annual data provided for H1b only
H1b	345552	389413	42.8	36.0	30.9	33.1	26.2	22.9	19.9	25.3	24.7	30.2	34.1	34.4	29.4	22.9		Duplicate Site with H1a and H1b - Annual data provided for H1b only
H2a	345537	389407	37.8	41.6	36.2	35.9	29.3	25.8	17.5	28.5	22.0	32.3	37.9	36.9	-	-		Duplicate Site with H2a and H2b - Annual data provided for H2b only
H2b	345537	389407	40.1	41.3	35.2	35.7	30.3	24.7	18.1	28.1	27.5	29.6	36.7	36.0	31.5	24.6		Duplicate Site with H2a and H2b - Annual data provided for H2b only
H3a	345563	389399	48.0	46.5	40.0	44.3	27.5	28.3	22.9	35.2	31.6	22.9	36.8	37.0	-	-		Duplicate Site with H3a and H3b - Annual data provided for H3b only
H3b	345563	389399	45.7	46.7	43.5	39.7	34.6	28.9	19.6	33.9	28.7	34.8	41.2	39.9	35.1	27.4		Duplicate Site with H3a and H3b - Annual data provided for H3b only
H4a	345517	389329	38.6	34.7	29.9	29.8	21.6	17.4	13.0	22.5	21.3	24.0	30.5	29.4	-	-		Duplicate Site with H4a and H4b - Annual data provided for H4b only
H4b	345517	389329	35.0	35.6	28.7	26.7	21.3	16.9	13.4	23.2	19.0	23.5	28.8	30.8	25.2	19.7		Duplicate Site with H4a and H4b - Annual data provided for H4b only
H5Aa	345563	389397	39.3	39.1	33.7	32.6	28.6	21.2	18.1	29.4	16.5	28.3	35.1	37.4	-	-		Duplicate Site with H5Aa and H5Ab - Annual data provided for H5Ab only
H5Ab	345563	389397	33.0	39.8	34.6	33.8	26.3	22.4	18.8	27.9	21.4	29.2	36.9	35.2	29.7	23.1		Duplicate Site with H5Aa and H5Ab - Annual data provided for H5Ab only
H6Aa	345543	389390	43.5	45.1	40.6	35.9	37.4	28.1	28.7	31.9	29.5	33.6	40.1	33.6	-	-		Duplicate Site with H6Aa and H6Ab - Annual data provided for H6Ab only
H6Ab	345543	389390	45.9	31.0	36.3	36.0	38.6	27.7	25.9	30.6	24.2	35.1	38.0	35.0	34.4	26.9		Duplicate Site with H6Aa and H6Ab - Annual data provided for H6Ab only
H7Aa	345503	389429	38.0	38.2	33.9	31.8	27.2	18.3	15.5	24.2	23.3	27.8	34.5	26.7	-	-		Duplicate Site with H7Aa and H7Ab - Annual data provided for H7Ab only
H7Ab	345503	389429	38.2	39.8	32.8	33.0	25.8	18.7	17.0	24.3	24.3	26.4	29.5	24.5	27.6	21.5		Duplicate Site with H7Aa and H7Ab - Annual data provided for H7Ab only
H8Aa	345577	389394	38.7	47.9	34.2	44.1	37.6	24.3	21.1	29.9	28.3	26.4	32.9	39.9	-	-		Duplicate Site with H8Aa and H8Ab - Annual data provided for H8Ab only
H8Ab	345577	389394	42.3	41.4	37.5	34.4	38.3	27.1	17.7	31.5	28.0	30.7	39.4	34.2	33.3	26.0		Duplicate Site with H8Aa and H8Ab - Annual data provided for H8Ab only

H9Aa	345555	389392	38.2	37.4	30.0	26.0	23.4	20.9	16.7	28.4	24.6	26.6	34.7	37.0	-	-		Duplicate Site with H9Aa and H9Ab - Annual data provided for H9Ab only
H9Ab	345555	389392	28.7	19.0	34.4	37.1	32.4	22.5	18.7	27.8	23.9	17.0	34.8	31.0	27.7	21.6		Duplicate Site with H9Aa and H9Ab - Annual data provided for H9Ab only
H10a	345424	389325	17.8	29.3	23.3	21.3	15.5	12.1	9.9	13.7	16.7	19.2	23.3	26.1	-	-		Duplicate Site with H10a and H10b - Annual data provided for H10b only
H10b	345424	389325	25.5	27.5	19.5	20.7	15.0	11.9	9.0	15.0	15.0	17.0	26.0	25.2	18.8	14.7		Duplicate Site with H10a and H10b - Annual data provided for H10b only
H11a	346329	389782	32.5	26.8	25.8	20.8	23.1	23.8	20.7	19.7	21.2	24.9	26.6	32.4	-	-		Duplicate Site with H11a and H11b - Annual data provided for H11b only
H11b	346329	389782	33.6	31.2	28.0	18.8	23.3	21.6	22.6	20.0	20.3	28.1	24.7	35.7	25.3	19.7		Duplicate Site with H11a and H11b - Annual data provided for H11b only
H12a	346425	389669	36.1	36.2	29.1	25.6	28.5	25.7	28.3	24.8	24.8	32.9	35.0	26.8	-	-		Duplicate Site with H12a and H12b - Annual data provided for H12b only
H12b	346425	389669	40.6	34.6	29.2	24.5	26.8	27.1	30.4	26.7	24.2	36.1	33.4	29.1	29.8	23.2		Duplicate Site with H12a and H12b - Annual data provided for H12b only
K1a	340355	397795	22.0	42.7	32.8	38.8	32.9	35.3	26.9	37.6	37.1	39.5	44.0	20.3	-	-		Duplicate Site with K1a and K1b - Annual data provided for K1b only
K1b	340355	397795	42.3	40.7	36.5	35.8	33.5	32.6	26.9	33.8	42.2	28.7	42.8	39.4	34.9	27.2		Duplicate Site with K1a and K1b - Annual data provided for K1b only
K2a	341165	398953	26.4	29.5	22.3	23.0	15.9	14.6	9.9	17.9	20.7	19.0	25.8	26.3	-	-		Duplicate Site with K2a and K2b - Annual data provided for K2b only
K2b	341165	398953	11.6	26.6	21.7	24.4	13.0	15.3	9.5	15.8	21.1	19.5	28.4	23.5	19.9	15.5		Duplicate Site with K2a and K2b - Annual data provided for K2b only
K3a	341317	399000	31.8	32.4	24.2	23.1	16.6	7.1	8.1	19.9	22.2	21.0	29.7	25.4	-	-		Duplicate Site with K3a and K3b - Annual data provided for K3b only
K3b	341317	399000	34.3	32.3	24.0	24.3	13.0	15.7	9.7	20.7	23.7	19.8	27.0	24.6	21.6	16.8		Duplicate Site with K3a and K3b - Annual data provided for K3b only
K4a	341464	398997	18.2	27.9	26.7	23.9	22.8		16.8	23.5	24.7		33.5	30.4	-	-		Duplicate Site with K4a and K4b - Annual data provided for K4b only
K4b	341464	398997	35.4	36.1	28.3	26.9	22.8	23.1	16.9	22.9	26.6		25.5	28.8	25.5	19.9		Duplicate Site with K4a and K4b - Annual data provided for K4b only
K5a	341407	398988	37.6	39.8	31.4	28.6	24.8	26.1	21.3	26.6	26.5	28.4	40.3	34.7	-	-		Duplicate Site with K5a and K5b - Annual data provided for K5b only
K5b	341407	398988	42.8	38.3	31.6	26.6	24.6	26.3	23.4	27.6	20.9	32.4	34.7	33.2	30.0	23.4		Duplicate Site with K5a and K5b - Annual data provided for K5b only
K6a	341426	398922	41.8	42.7	36.5	32.5	27.2	24.8	22.7	28.6	28.7	32.3	36.7	37.7	-	-		Duplicate Site with K6a and K6b - Annual data provided for K6b only
K6b	341426	398922	44.9	42.0	33.6	30.1	28.2	24.3	21.6	27.3	30.1	33.1	37.4	37.5	32.3	25.2		Duplicate Site with K6a and K6b - Annual data provided for K6b only

K7a	341576	398654	32.4	32.4	25.0	20.7	19.3	13.9	13.2	17.9	21.2	22.9	29.7	28.3	-	-		Duplicate Site with K7a and K7b - Annual data provided for K7b only
K7b	341576	398654	34.7	30.2	25.4	23.4	18.2	16.0	12.3	19.4	19.0	15.6	29.6	31.4	22.6	17.7		Duplicate Site with K7a and K7b - Annual data provided for K7b only
K8a	341371	398537	35.2	35.4	32.0	25.9	22.7	19.7	16.5	22.0	20.9	23.1	32.5	26.2	-	-		Duplicate Site with K8a and K8b - Annual data provided for K8b only
K8b	341371	398537	33.5	33.7	29.6	28.2	24.8	19.8	16.3	22.0	25.6	19.9	33.5	30.1	25.8	20.1		Duplicate Site with K8a and K8b - Annual data provided for K8b only
K9a	341387	398504	34.8		30.7	26.7	27.8	23.0	19.2	24.7	22.9	27.2	33.7	29.2	-	-		Duplicate Site with K9a and K9b - Annual data provided for K9b only
K9b	341387	398504	40.6		29.5	20.8	24.9	21.2	19.1	73.3	25.2	28.5	32.7	32.8	29.0	22.6		Duplicate Site with K9a and K9b - Annual data provided for K9b only
K10a	342421	397755	24.6	34.3	23.5	24.7	18.4	14.3	11.8	21.8	20.6	23.0	28.8	28.2	-	-		Duplicate Site with K10a and K10b - Annual data provided for K10b only
K10b	342421	397755	35.2	32.8	24.5	20.4	21.2	14.5	12.1	19.2	19.7	22.0	31.3	28.4	22.8	17.8		Duplicate Site with K10a and K10b - Annual data provided for K10b only
P1a	345816	392660	29.4	40.8	30.1	23.8	23.3	21.1	20.8	21.0	21.6		29.0	29.6	-	-		Duplicate Site with P1a and P1b - Annual data provided for P1b only
P1b	345816	392660	21.4	36.3	29.4	25.3	23.0	20.2	20.7	21.0	22.3		23.0	27.9	25.4	19.8		Duplicate Site with P1a and P1b - Annual data provided for P1b only
P2a	346164	392807	33.5	36.7	28.6	21.3	23.7	24.6	18.0	26.5	29.0	28.2	25.9	33.8	-	-		Duplicate Site with P2a and P2b - Annual data provided for P2b only
P2b	346164	392807	29.9	36.1	25.4	23.0	25.1	26.0		25.2	28.3	27.2	29.1	33.3	27.2	21.2		Duplicate Site with P2a and P2b - Annual data provided for P2b only
P3a	346393	392844	22.5	48.0		28.6	21.5	17.1	17.3	19.1	19.2	21.1	14.6	28.6	-	-		Duplicate Site with P3a and P3b - Annual data provided for P3b only
P3b	346393	392844	46.5	43.4	28.8	34.3	16.3	10.5	18.4		21.1	19.5	28.2	29.3	24.6	19.2		Duplicate Site with P3a and P3b - Annual data provided for P3b only
P4Aa	346942	392387	26.0	37.3	25.6	25.4	18.0	18.9		22.3	23.2	24.5	31.0	27.1	-	-		Duplicate Site with P4Aa and P4Ab - Annual data provided for P4Ab only
P4Ab	346942	392387	26.0	34.9	27.1	24.9	15.0	18.2		22.8	23.1	23.9	29.7	30.0	25.1	19.6		Duplicate Site with P4Aa and P4Ab - Annual data provided for P4Ab only
P5Aa	346898	392367	28.4	30.7	25.1	24.9	13.8	15.2		18.2	18.7	20.5	26.2	24.0	-	-		Duplicate Site with P5Aa and P5Ab - Annual data provided for P5Ab only
P5Ab	346898	392367	29.3	32.3		21.9	16.2	15.6		18.1	19.9	20.0	25.7	27.1	22.4	17.5		Duplicate Site with P5Aa and P5Ab - Annual data provided for P5Ab only
P6Aa	346850	392360	27.6	31.4	25.7	26.0	16.1	15.5	11.6	19.6	17.6	19.3	24.5	27.7	-	-		Duplicate Site with P6Aa and P6Ab - Annual data provided for P6Ab only
P6Ab	346850	392360	27.0	34.1	25.0	24.4	18.6	14.3	11.7	19.3	21.6	20.6	25.6	27.4	21.9	17.0		Duplicate Site with P6Aa and P6Ab - Annual data provided for P6Ab only

P7Aa	346799	391419	30.3	28.5	23.2	21.5	15.3	14.2	10.8	16.5	16.7	18.7	25.5	25.0	-	-		Duplicate Site with P7Aa and P7Ab - Annual data provided for P7Ab only
P7Ab	346799	391419	17.0	31.1	23.6	20.2	14.4	14.0	10.9	15.1	18.6	19.8	19.4	25.6	19.6	15.3		Duplicate Site with P7Aa and P7Ab - Annual data provided for P7Ab only
P8Aa	346792	391617	16.4	29.2	20.9	19.8	14.5	12.8	10.9	15.8	19.2	20.0	26.7		-	-		Duplicate Site with P8Aa and P8Ab - Annual data provided for P8Ab only
P8Ab	346792	391617	31.1	30.6	19.3	19.8	14.3		11.1	15.4	17.9	19.2	23.1		18.8	14.7		Duplicate Site with P8Aa and P8Ab - Annual data provided for P8Ab only
P9Aa	347950	392325	29.1	31.2	24.4	21.7	16.9	18.9	17.5	21.8	20.5	27.9	28.0	23.8	-	-		Duplicate Site with P9Aa and P9Ab - Annual data provided for P9Ab only
P9Ab	347950	392325	26.9	36.7	23.2	23.0	16.9	19.7	17.0	22.6	23.8	23.2	26.1	24.1	23.3	18.2		Duplicate Site with P9Aa and P9Ab - Annual data provided for P9Ab only
P10Aa	347393	392307	15.2	39.7	28.5	25.8	21.3	13.9	12.2	17.4	19.9	21.4	24.6	24.4	-	-		Duplicate Site with P10Aa and P10Ab - Annual data provided for P10Ab only
P10Ab	347393	392307	19.6	40.7	29.7	26.4	19.8	14.4	13.1	17.8	20.0	13.2	28.5	26.8	22.1	17.2		Duplicate Site with P10Aa and P10Ab - Annual data provided for P10Ab only
HW1a	344843	385022	24.9	28.8	20.9	18.9	14.9	12.0	11.9	15.6	17.1	12.8	21.8	19.1	-	-		Duplicate Site with HW1a and HW1b - Annual data provided for HW1b only
HW1b	344843	385022	27.3	26.8	19.1	17.7	14.5	13.1	12.7	16.2	16.7	14.9	21.3	22.4	18.1	14.1		Duplicate Site with HW1a and HW1b - Annual data provided for HW1b only
HW2a	344827	385202	34.9	39.6	24.5	26.0	19.9	17.3	14.8	22.3	18.7	24.9	24.1	31.6	-	-		Duplicate Site with HW2a and HW2b - Annual data provided for HW2b only
HW2b	344827	385202	30.3	35.8	24.6	28.4	21.6	20.2	13.5	22.0	22.4	23.2	29.4	28.0	24.6	19.2		Duplicate Site with HW2a and HW2b - Annual data provided for HW2b only
HW3Aa	344927	385128	49.1	49.2	35.1	34.2	31.1	31.4	22.2	34.4	23.4	36.4	37.6	41.8	-	-		Duplicate Site with HW3Aa and HW3Ab - Annual data provided for HW3Ab only
HW3Ab	344927	385128	46.0	48.4	38.4	36.4	30.7	29.0	22.3	35.0	27.4	29.6	35.8	41.3	34.8	27.1		Duplicate Site with HW3Aa and HW3Ab - Annual data provided for HW3Ab only

☒ All erroneous data has been removed from the NO₂ 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.

☒ Knowsley MBC confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

Notes:

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment.

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

New or Changed Sources Identified Within Knowsley Metropolitan Borough Council During 2025

Knowsley MBC have identified the following planning applications as having the potential to impact air quality:

24/00554/FUL - Date Granted: 31 January 2025

Address/Location of Development: Pilkington Court, Sinclair Way, Prescott Business Park, Prescott, Knowsley.

Description of Development: ERECTION OF A STORAGE/WAREHOUSE BUILDING (USE CLASS B8) AND ASSOCIATED CAR PARKING.

Air Quality Report – Not submitted. Dust control monitored within Construction Management Plan.

24/00509/FUL - Date Granted: 11 February 2025

Address/Location of Development: Phoenix House, Stockpit Road, Knowsley Industrial Park, Kirkby, Knowsley.

Description of Development: ERECTION OF INDUSTRIAL BUILDING, RELOCATION OF EXISTING INDUSTRIAL BUILDING AND ASSOCIATED WORKS (USE CLASS B2/B8).

Air Quality Report – Not submitted. Dust control monitored within Construction Management Plan.

21/00744/FUL - Date Granted: 12 February 2025

Address/Location of Development: Kirkby Golf Course, Ingoe Lane, Field Lane Estate, Knowsley.

Description of Development: RE-DEVELOPMENT OF GOLF COURSE INCLUDING; THE IMPORTATION OF UP TO 475,000 CUBIC METRES OF INERT SOILS, SANDS

AND AGGREGATE (TO BE GOVERNED BY CL:AIRE DOWCOP PROCEDURES / PROTOCOLS), TO REMODEL THE EXISTING GOLF COURSE AND CREATE A NEW 9 HOLE PAR 3 GOLF COURSE ON 52 ACRES OF DISUSED LAND ADJACENT TO THE EXISTING GOLF COURSE, ERECTION OF NEW TWO STOREY CLUBHOUSE COMPRISING BAR, RESTAURANT, FUNCTION SPACE, CHANGING ROOMS AND ASSOCIATED FACILITIES, CHANGE OF USE OF EXISTING CLUB HOUSE TO GOLF RELATED TRAINING ACADEMY WITH OVERNIGHT ACCOMMODATION FOR GOLF PROFESSIONALS WITH EXTENSION TO BUILDING, AND ALTERATIONS, NEW CENTRALLY LOCATED GREENKEEPERS COMPOUND WITH ASSOCIATED PORTAL FRAME BUILDING HOUSING WELFARE FACILITIES, OFFICE SPACE, TRAINING SPACE AND EQUIPMENT STORAGE, AND MAINTENANCE AND SECURITY FENCING, CREATION OF AN ADVENTURE GOLF COURSE AND PRACTICE PUTTING GREEN, CREATION OF A GOLF DRIVING RANGE WITH TWO STOREY BUILDING INCLUDING BAR/LOUNGE, PRO GOLF SHOP, TRAINING AND PRACTICE, LIGHTING AND NETTING AND SUPPORTING WORKS INCLUDING DRAINAGE WORKS (INCLUDING IRRIGATION WATER BODIES / WETLAND FEATURES), THE ERECTION OF A FOOTBRIDGE OVER THE RIVER ALT, CREATION OF 1NO NEW ACCESS ONTO VALLEY ROAD, EXTENDING CAR PARK AND SITE WIDE LANDSCAPING.

Air Quality Report – Submitted. Dust control monitored within Construction Management Plan.

22/00501/FUL - Date Granted: 25 February 2025

Address/Location of Development: Roby Hotel Public House, 104 Greystone Road, Roby, Knowsley.

Description of Development: DEMOLITION OF PUBLIC HOUSE AND THE ERECTION OF 9 NO. DWELLINGS TOGETHER WITH OTHER ASSOCIATED WORKS.

Air Quality Report – Not submitted. Dust control monitored within Construction Management Plan.

24/00068/FUL - Date Granted: 11 April 2025

Address/Location of Development: Land South of Cherryfield Drive, Kirkby Town Centre, Knowsley.

Description of Development: DEMOLITION OF EXISTING BUILDINGS AND ERECTION OF 800 DWELLINGS (USE CLASS C3) WITH VEHICULAR ACCESS FROM CHERRYFIELD DRIVE AND BEWLEY DRIVE AND ASSOCIATED LANDSCAPING AND INFRASTRUCTURE, AMENDMENT TO THE EXISTING CHERRYFIELD DRIVE CAR PARK TO PROVIDE A REVISED LAYOUT, LANDSCAPING AND 16 ADDITIONAL PARKING SPACES AND HIGHWAY IMPROVEMENTS TO CHERRYFIELD DRIVE.

Air Quality Report – Submitted. Dust control monitored within Construction Management Plan.

25/00135/FUL - Date Granted: 3 June 2025

Address/Location of Development: Huyton Waste Transfer Station, Ellis Ashton Street, Huyton, Knowsley.

Description of Development: DEMOLITION OF MAINTENANCE HUT, ERECTION OF A FOOD WASTE TRANSFER BUILDING

Air Quality Report – Submitted. Dust control monitored within Construction Management Plan. Site permitted by the Environment Agency.

23/02782/FUL - Date Granted: 30 July 2025

Address/Location of Development: Sovereign Industrial Park, Wilson Road, Huyton, Knowsley.

Description of Development: ERECTION OF 1NO. RETAIL UNIT (USE CLASS E(A) WITH EXTERNAL DISPLAY AREA AND CAR PARKING AND SERVICING ARRANGEMENTS. PARTIAL DEMOLITION, RECONFIGURATION AND REFURBISHMENT OF EXISTING EMPLOYMENT BUILDING TO CREATE 3NO. INDUSTRIAL/ WAREHOUSE BUILDINGS WITH ANCILLARY OFFICES (USE CLASSES E(G)(III), B2 AND B8) WITH SERVICING AND CAR PARKING; RETENTION AND AMENDMENT OF EXISTING SITE ACCESSES ALONG WITH INTERNAL ESTATE ROADS; 2NO.SUBSTATIONS; LANDSCAPING; AND ASSOCIATED WORKS.

Air Quality Report – Technical note submitted. Dust control monitored within Construction Management Plan.

24/00594/FUL - Date Granted: 14 August 2025

Address/Location of Development: Land at Coppice Lane, Huyton, Knowsley.

Description of Development: ERECTION OF CAR DEALERSHIP COMPRISING CAR SHOWROOM, OFFICES, CAR SERVICING AND MOT WORKSHOP AND TESTING FACILITY TOGETHER WITH EXTERNAL PARKING AND CAR STORAGE AREA AND CONVERSION OF EXISTING HGV SERVICING WORKSHOP TO FORM CAR REPAIR CENTRE AND BODYSHOP AND INCLUDING DEMOLITION OF EXISTING DAF TRUCKS BUILDING.

Air Quality Report – Submitted. Dust control monitored within Construction Management Plan.

23/02782/FUL - Date Granted: 20 August 2025

Address/Location of Development: Sovereign Industrial Park, Wilson Road, Huyton, Knowsley.

Description of Development: APPLICATION FOR THE APPROVAL OF RESERVED MATTERS (SCALE, ACCESS, APPEARANCE, LAYOUT AND PARTIAL LANDSCAPING) PURSUANT TO HYBRID PLANNING PERMISSION 20/00494/HYB, COMPRISING THE DEVELOPMENT OF 495,720 SQ FT (GIA) OF STORAGE AND DISTRIBUTION FLOORSPACE (USE CLASS B8) AND ANCILLARY OFFICES (USE CLASS E(G)) ACROSS TWO WAREHOUSE UNITS, TOGETHER WITH LANDSCAPING AND THE PROVISION OF INFRASTRUCTURE.

Air Quality Report – Previously, under 20/00494/HYB. Dust control monitored within Construction Management Plan.

25/00396/FUL - Date Granted: 27 November 2025

Address/Location of Development: Firmer Syntor Fine Chemicals, Acornfield Road, Knowsley Industrial Park, Kirkby, Knowsley.

Description of Development: ERECTION OF LARGE-SCALE WAREHOUSE (USE CLASS B8), WITH ANCILLARY OFFICES AND STAFF WELFARE FACILITIES, SERVICE YARD, CAR PARK, LANDSCAPING AND ALTERATIONS TO ACCESS.

Air Quality Report – Not submitted. Dust control monitored within Construction Management Plan.

Additional Air Quality Works Undertaken by Knowsley Metropolitan Borough During 2025

Knowsley MBC has not completed any additional works within the reporting year of 2025.

QA/QC of Diffusion Tube Monitoring

The diffusion tubes are supplied and analysed by SOCOTEC Didcot using the 50% triethanolamine (TEA) in acetone preparation method. For the 2025 reporting year, based on seventeen studies, a national bias adjustment factor of 0.78 was derived from the national bias adjustment calculation spreadsheet (version number 03/26).

Table C1: National Diffusion Tube Bias Adjustment Factor Spreadsheet

National Diffusion Tube Bias Adjustment Factor Spreadsheet					Spreadsheet Version Number: 03/26					
Follow the steps below in the correct order to show the results of relevant co-location studies										This spreadsheet will be updated at the end of June 2026
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods										
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet										
This spreadsheet will be updated every few months; the factors may therefore be subject to change. This should not discourage their immediate use.										LAQM Helpdesk Website
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.					Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.					
Step 1:		Step 2:		Step 3:	Step 4:					
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List		Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor ² shown in blue at the foot of the final column.					
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.		If a year is not shown, we have no data ² .	If you have your own co-location study then see footnote ¹ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953					
Analysed By ¹	Method To make your selection, choose (M) from the pop-up list	Year ² To make your selection, choose (M)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision ³	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in acetone	2025	UB	Gravesham Borough Council	12	21	19	8.2%	G	0.92
SOCOTEC Didcot	50% TEA in acetone	2025	KS	Marlebone Road Intercomparison	12	48	31	52.1%	G	0.66
SOCOTEC Didcot	50% TEA in acetone	2025	UB	North East Lincolnshire Council	12	13	11	22.3%	G	0.81
SOCOTEC Didcot	50% TEA in acetone	2025	R	North East Lincolnshire Council	12	41	30	37.6%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2025	R	North East Lincolnshire Council	12	24	19	22.5%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	UI	North Lincolnshire Council	12	15	12	21.9%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	UB	Derby City And Strabane District Council	12	12	8	40.1%	G	0.71
SOCOTEC Didcot	50% TEA in acetone	2025	R	Wrexham County Borough Council	12	16	14	9.2%	G	0.92
SOCOTEC Didcot	50% TEA in acetone	2025	R	Horsham District Council	11	19	16	21.3%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	R	Horsham District Council	10	20	16	26.3%	G	0.79
SOCOTEC Didcot	50% TEA in acetone	2025	R	Ipswich Borough Council	12	35	26	36.4%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	10	36	28	27.7%	G	0.78
SOCOTEC Didcot	50% TEA in acetone	2025	KS	Leeds City Council	12	27	20	35.4%	G	0.74
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	12	36	26	37.4%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	11	23	18	26.3%	G	0.79
SOCOTEC Didcot	50% TEA in acetone	2025	UC	Leeds City Council	12	24	19	28.0%	G	0.78
SOCOTEC Didcot	50% TEA in acetone	2025	UB	Southend-on-sea City Council	11	16	12	28.5%	G	0.78
SOCOTEC Didcot	50% TEA in acetone	2025	Overall Factor ² (17 studies)					Use	0.78	

SOCOTEC Didcot, a UKAS accredited laboratory, participate in the AIR-PT scheme for NO₂ diffusion tube analysis and the Annual Field Intercomparison Exercise. These provide strict criteria relating to performance that participating laboratories must meet, thereby ensuring that the reported NO₂ concentrations are of a high calibre.

In the latest AIR-PT results, AIR-PT AR068 (January – February 2025), AIR-PT AR069 (April – June 2025), AIR-PT AR071 (July – September 2025) and AIR-PT (October – December 2025) SOCOTEC were awarded a score of 100% - the percentage score is an indication of the results deemed satisfactory based upon the z-score of <±2. For all observations in 2025,

the precision of the NO₂ diffusion tubes supplied by SOCOTEC Didcot was classified as 'satisfactory'. The precision is an indication of the laboratory's performance and consistency in the preparation, analysis, and handling of the diffusion tubes. All diffusion tubes were collected in line with the monitoring calendar.

Table C2: National Diffusion Tube Bias Adjustment Factor Spreadsheet

The following table lists those UK laboratories undertaking LAQM activities that have participated in recent AIR NO₂ PT rounds and the percentage (%) of results submitted which were subsequently determined to be **satisfactory** based upon a z-score of $\leq \pm 2$ as defined above.

AIR PT Round	AIR PT AR062	AIR PT AR063	AIR PT AR065	AIR PT AR066	AIR PT AR068	AIR PT AR069	AIR PT AR071	AIR PT AR072	AIR PT AR074
Round conducted in the period	January – February 2024	April – June 2024	July – August 2024	September – October 2024	January – February 2025	April – June 2025	July – September 2025	October – December 2025	January – February 2026
Aberdeen Scientific Services	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Cardiff Scientific Services	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Edinburgh Scientific Services	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	0 %
SOCOTEC	100 % [1]	100 % [1]	100 % [1]	100 % [1]	87.5 % [1]	100 % [1]	100 % [1]	87.5 % [1]	100 % [1]
Exova (formerly Clyde Analytical)	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Glasgow Scientific Services	75 %	100 %	100 %	100 %	100 %	75 %	100 %	100 %	100 %
Gradko International	100 %	100 %	100 %	100 %	50 %	75 %	100 %	100 %	100 %
Kent Scientific Services	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Kirklees MBC	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Lambeth Scientific Services	50 %	50 %	50 %	50 %	100 %	100 %	75 %	50 %	100 %
Milton Keynes Council	100 %	NR [2]	50 %	100 %	100 %	75 %	75 %	50 %	75 %
Northampton Borough	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]
Somerset Scientific Services	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	NR [2]
South Yorkshire Air Quality Samplers	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]	NR [2]
Staffordshire County Council, Scientific Services	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Tayside Scientific Services (formerly Dundee CC)	NR [2]	NR [2]	100 %	NR [2]	NR [2]	NR [2]	NR [2]	100 %	NR [2]
West Yorkshire Analytical Services	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]	NR [3]

[1] Participant subscribed to two sets of test results (2 x 4 test samples) in each AIR PT round.

[2] NR, No results reported.

[3] Cardiff Scientific Services, Exova (formerly Clyde Analytical), Kent Scientific Services, Kirklees MBC, Northampton Borough Council and West Yorkshire Analytical Services; no longer carry out NO₂ diffusion tube monitoring and therefore did not submit results.

*LAQM Helpdesk – February 2026 (NO₂ PT Summary – AIR PT Rounds AR062, 63, 66, 68, 69, 71, 72 & 74)

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Knowsley MBC recorded data capture of 75% or more therefore it was not required to annualise any monitoring data.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2025 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 regarding 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/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Knowsley Metropolitan Borough Council have applied a national bias adjustment factor of 0.78 to the 2025 monitoring data. A summary of bias adjustment factors used by Knowsley MBC over the past five years is presented in Table C..

Table C.3 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	National	03/26	0.78
2024	National	04/25	0.78
2023	National	03/24	0.77
2022	National	03/22	0.76
2021	Local	-	0.93

NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO₂ concentrations corrected for distance are presented in Table B.1.

No diffusion tube NO₂ monitoring locations within Knowsley MBC required distance correction during 2025.

QA/QC of Automatic Monitoring

The Kirkby station used Beta Automatic Mass (BAM) monitors to measure PM₁₀. As per TG.16, the BAM met the equivalence criteria for monitoring providing the results were corrected for slope. The data in this report had the correction factor applied so it could be compared to the National Air Quality Objectives. Both PM₁₀ and PM_{2.5} were previously recorded at the Huyton and Halewood sites using TEOMS. All three sites had NO₂ monitors installed. Data from the analyser was stored as 'raw' or 'uncorrected' data on the logger and therefore needed to be corrected or validated. To validate the data, the NO₂ analyser needed to be checked against a referenced standard of 'zero' air and 'span' gas. Data was

corrected using either daily or monthly calibration checks to verify that the analyser was corrected for any response change.

A regular manual calibration check was performed on all three automatic monitoring stations. For the NO₂ analyser, this check was performance to verify the response of the analyser in reference to 'zero' and 'span' by introducing a high concentration of NO gas. These results provided a validation of the NO_x analyser in the automatic monitoring station.

For the year 2021, all automatic monitors (Huyton, Halewood, and Kirkby) were only in operation from January – September. Knowsley have not renewed their contract with We Care 4 Air, resulting in contract termination in September 2021 as the monitors used for PM₁₀ and PM_{2.5} were unable to be validated against the volatile correction model and costs associated with updating equipment was not feasible at the time of contract renewal. There has been no automatic monitoring data since October 2021.

PM₁₀ and PM_{2.5} Monitoring Adjustment

PM₁₀ and PM_{2.5} data was corrected using the volatile correction model. However, in 2021 the TEOMS measurements at the Huyton and Halewood monitoring stations were unable to be validated against the volatile correction model, as there were no FDMS instruments within 130 km of the sites.

Automatic Monitoring Annualisation

Knowsley Metropolitan Borough Council do not have any automatic monitoring stations, the stations ceased operation in 2021.

In 2021 all three automatic monitoring sites recorded below the acceptable data capture for NO₂, and PM₁₀ for site in Kirkby. Annualisation, for the 2021 data, was conducted for the annual mean NO₂ and PM₁₀ at Kirkby Old Rough Lane (with data captures of 73.4% and 69.1% for each pollutant, respectively) NO₂ at Halewood (74.5%) and Huyton Cronton Road (72.5%). Four continuous background monitoring locations were used, the three locations within a 50-mile radius were selected to annualise the data:

- Glazebury
- Wirral Tranmere
- Wigan Centre
- Salford Eccles

These continuous background monitoring sites were applicable to use as they all had >85% data capture and therefore could be used for annualisation. This information was presented within the 2022 ASR.

Summary of Low-Cost Air Quality Sensor Monitoring

The National air quality objectives were used to analyse the data from the Zephyr Automatic Stations. Data has been collated for the last 3 years, however the data had insufficient (<85%) annual data capture and as the system is continuing to be a trial no sites are available to annualise the data. Therefore, the information is to be used indicatively. Data was collated for NO₂, NO, O₃, PM₁₀, PM_{2.5} and PM₁.

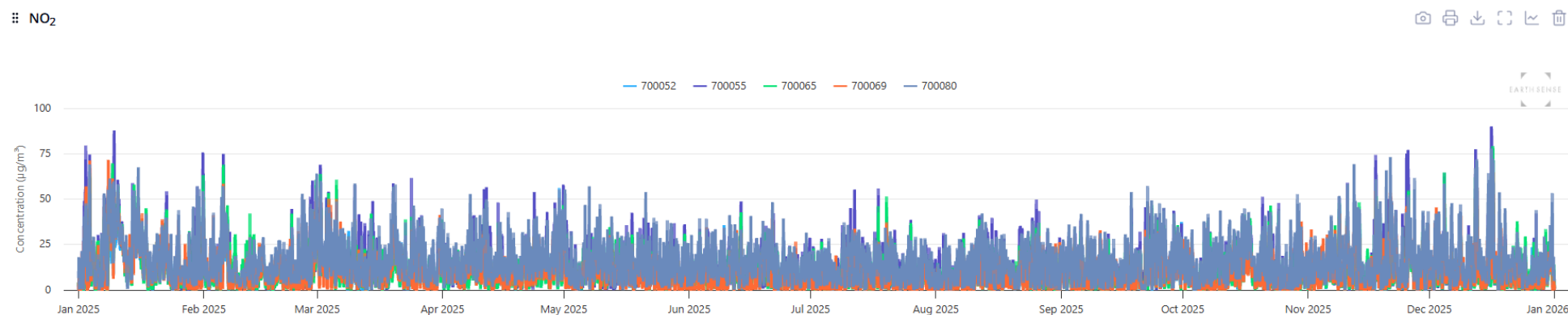
Table C.4– Details of Low-Cost Sensor Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	Sensor Type	In AQMA?	Which AQMA? ⁽¹⁾	Distance to Relevant Exposure (m) ^(1,2)	Distance to kerb of nearest road (m) ⁽¹⁾	Inlet Height (m)
700052	Hall Lane	Roadside	483932	888206	NO, NO ₂ , O ₃ PM ₁₀ , PM _{2.5} , PM ₁	Zephyr (Earthsense)	NO	N/A	16.2	1.1	3.2
700055	County Road	Roadside	488830	887020	NO, NO ₂ , O ₃ PM ₁₀ , PM _{2.5} , PM ₁	Zephyr (Earthsense)	NO	N/A	20.8	0.75	3.47
700065	Old Rough Lane	Roadside	484154	881792	NO, NO ₂ , O ₃ PM ₁₀ , PM _{2.5} , PM ₁	Zephyr (Earthsense)	NO	N/A	12	0.65	3.33
700069	County Road / Westhead Avenue	Roadside	482830	883540	NO, NO ₂ , O ₃ PM ₁₀ , PM _{2.5} , PM ₁	Zephyr (Earthsense)	NO	N/A	21	0.75	3.17
700080	Cronton Road, Huyton	Roadside	398757	820269	NO, NO ₂ , O ₃ PM ₁₀ , PM _{2.5} , PM ₁	Zephyr (Earthsense)	NO	N/A	16	3.26	2.9

Nitrogen Dioxide

Table C.5 – NO₂ Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average (µg/m³)

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206	15	11	13	12	10	9	7	8	9	9	10	10	10
700055	488830	887020	19	11	15	13	13	12	12	11	12	11	13	11	13
700065	484154	881792	16	10	13	11	11	9	9	9	9	9	11	11	11
700069	482830	883540	16	10	12	11	8	7	5	7	9	8	11	10	9
700080	398757	820269	20	15	17	17	14	14	12	13	14	15	17	17	15

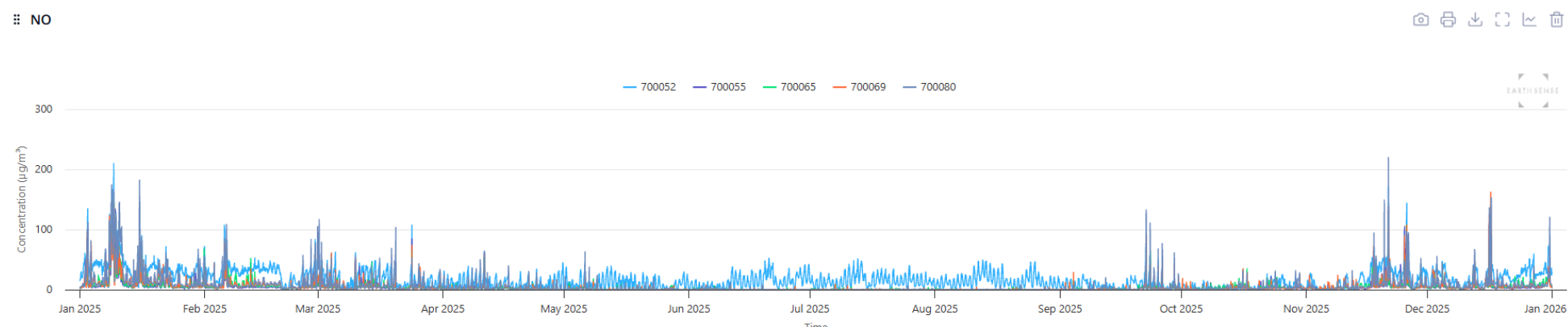


NO₂ did not exceed 200µg/m³ (1 hour mean) at any time during the monitoring period. The annual mean was calculated for each site and it did not exceed the 40µg/m³.

Nitrogen Oxide

Table C.6 – NO Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average ($\mu\text{g}/\text{m}^3$)

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206	40	28	17	11	10	13	15	15	9	5	20	23	17
700055	488830	887020	13	5	4	2	1	1	0	0	2	2	6	5	3
700065	484154	881792	14	7	5	2	1	1	1	0	2	3	6	6	4
700069	482830	883540	16	8	5	3	1	0	0	0	2	2	7	8	4
700080	398757	820269	26	10	8	4	1	0	0	0	3	3	9	10	6



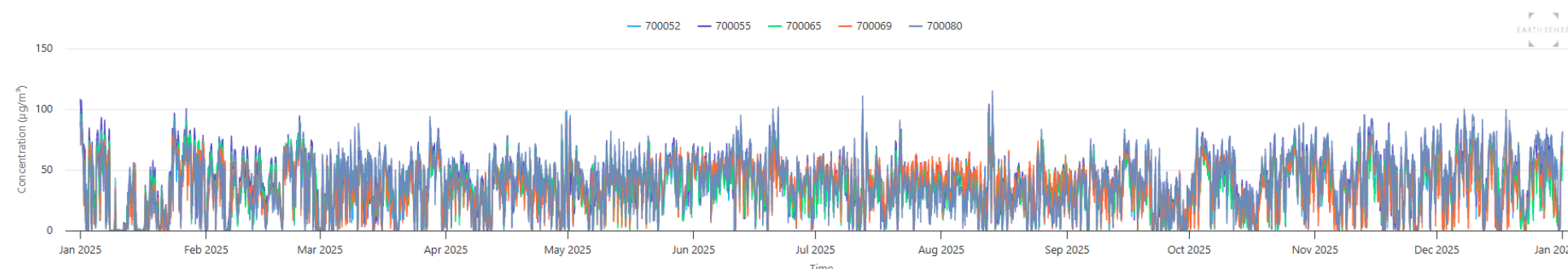
No compliance guidelines associated with NO.

Ozone

Table C.7 – O₃ Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average (µg/m³)

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206000	31	36	31	33	39	43	39	37	31	39	39	38	36
700055	488830	887020	35	45	34	36	38	43	36	35	32	42	42	48	39
700065	484154	881792	33	40	33	35	37	41	34	33	29	38	38	40	36
700069	482830	883540	30	37	30	31	40	45	41	37	30	39	36	38	36
700080	398757	820269	28	34	39	36	41	47	34	27	32	45	45	52	38

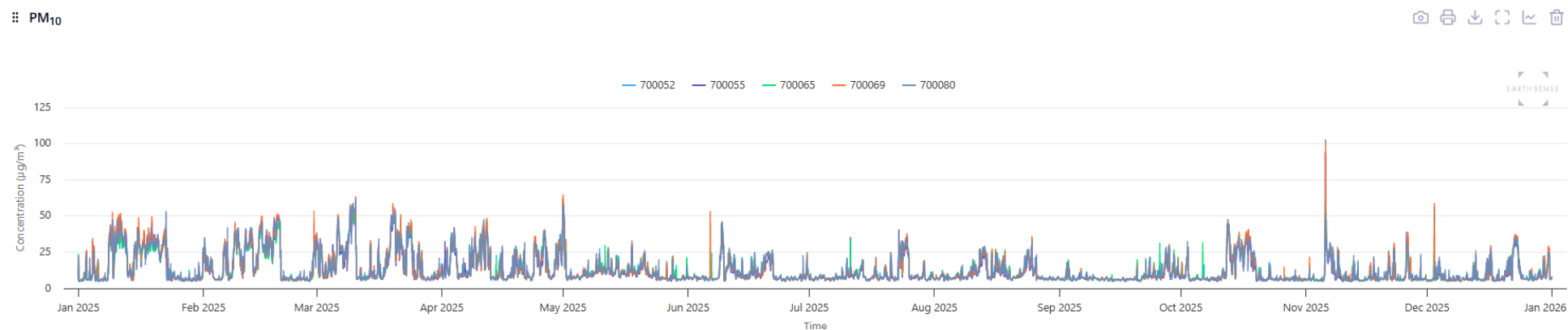
∞ O₃



Ozone did not exceed the maximum daily 8-hour mean concentration of 120 µg/m³

PM₁₀**Table C.8 – PM₁₀ Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average (µg/m³)**

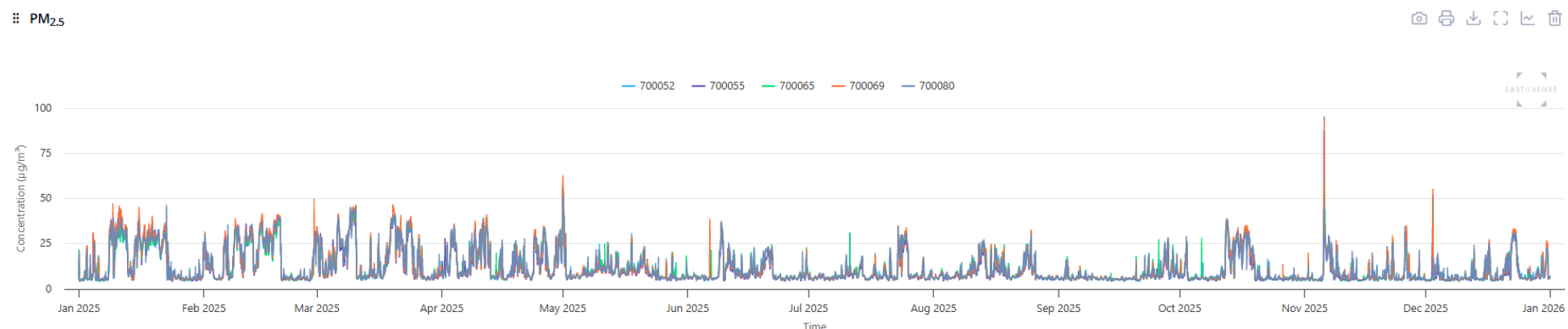
Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206	16	18	19	17	11	10	9	10	8	11	8	9	12
700055	488830	887020	17	18	19	16	10	9	9	10	8	11	9	8	12
700065	484154	881792	16	18	19	15	12	11	10	11	8	12	9	4	12
700069	482830	883540	18	19	20	17	11	11	10	10	8	12	10	10	13
700080	398757	820269	18	20	20	17	11	11	10	11	8	12	10	10	13

PM₁₀

The results showed that the PM₁₀ level did not exceed 50µg/m³ (24 hour mean) at any time during the monitoring period, with one peak identified within the Kirkby monitoring sites on the 5th November 2025, between 19:00 and 21:00 of values >100 µg/m³. The annual mean was calculated for each site, and it did not exceed the 40µg/m³ objective.

PM_{2.5}**Table C.9 – PM_{2.5} Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average (µg/m³)**

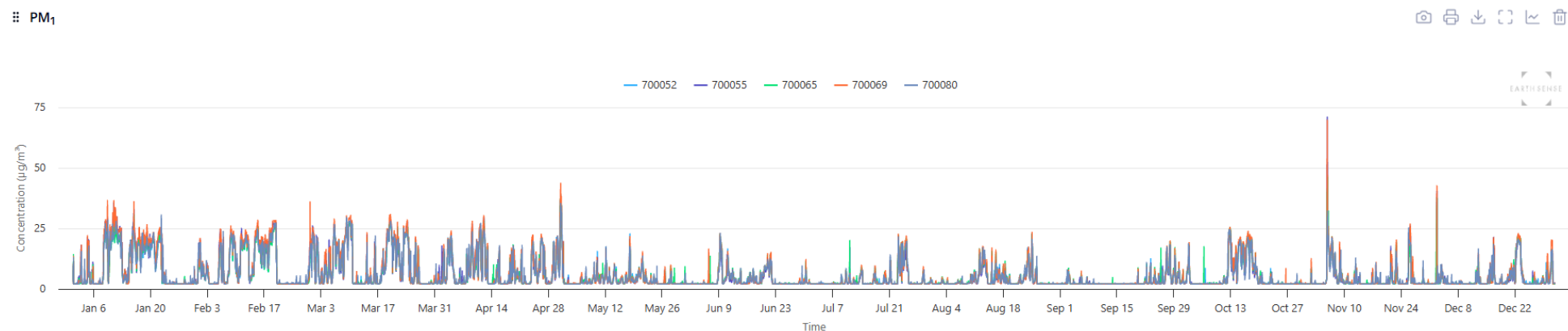
Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206	15	16	17	15	10	9	9	10	7	10	7	8	11
700055	488830	887020	16	17	16	14	9	8	8	9	7	10	8	8	11
700065	484154	881792	15	16	17	17	10	10	9	10	8	11	9	9	12
700069	482830	883540	17	17	18	15	10	10	9	10	7	11	9	9	12
700080	398757	820269	16	17	18	15	10	10	9	10	8	11	9	9	12

PM_{2.5}

The results showed that the PM_{2.5} level did not exceed 20µg/m³ (annual mean).

PM₁**Table C.10 – PM₁ Monthly Air Quality Sensor Monitoring Results, Monthly 1hr mean average (µg/m³)**

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
700052	483932	888206	9	9	9	8	4	4	3	4	3	5	3	4	5
700055	488830	887020	10	10	10	7	4	3	3	4	3	5	4	4	6
700065	484154	881792	9	9	9	7	4	4	4	4	3	5	4	10	6
700069	482830	883540	11	10	10	8	4	4	4	4	3	6	4	4	6
700080	398757	820269	9	10	9	7	4	4	4	4	3	5	4	4	6



No compliance guidelines associated with PM₁.

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

*The commentary supplied for the ASR June 2024 (ASR24-2129) by LAQM (point 3.c) states the scale bars within the figures are different, or not present. Please disregard the scales on the maps as they are only indicative maps to show the locations of the monitoring sites.

Figure D.1 – Map of Non-Automatic Monitoring Site

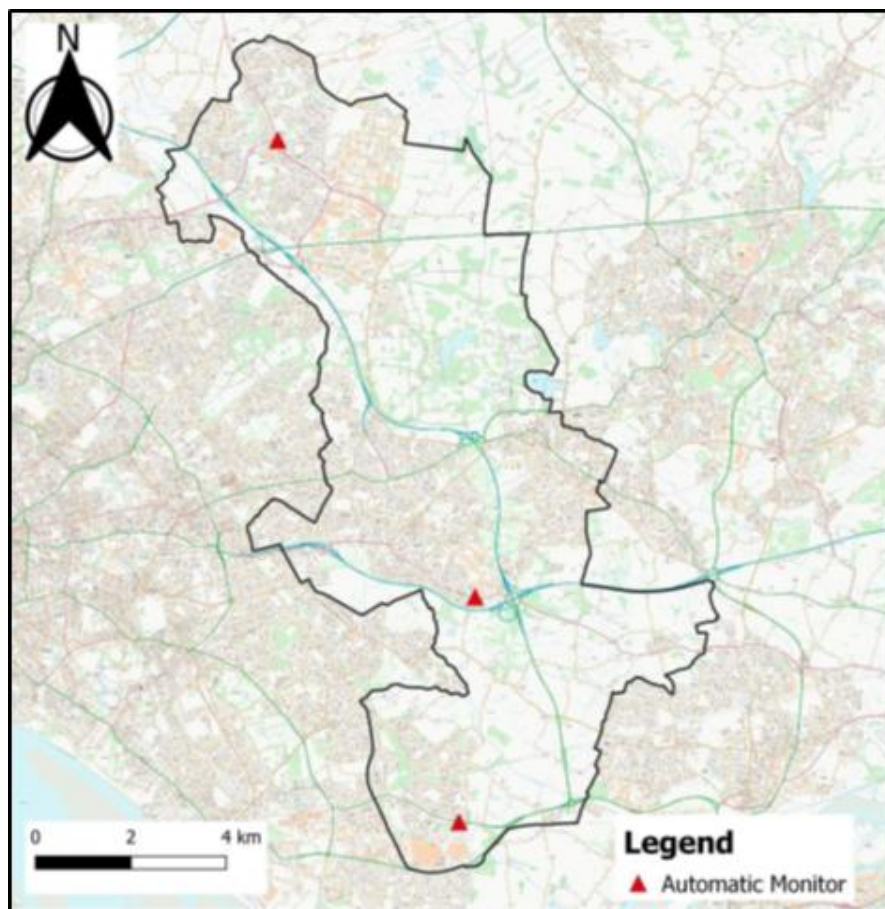
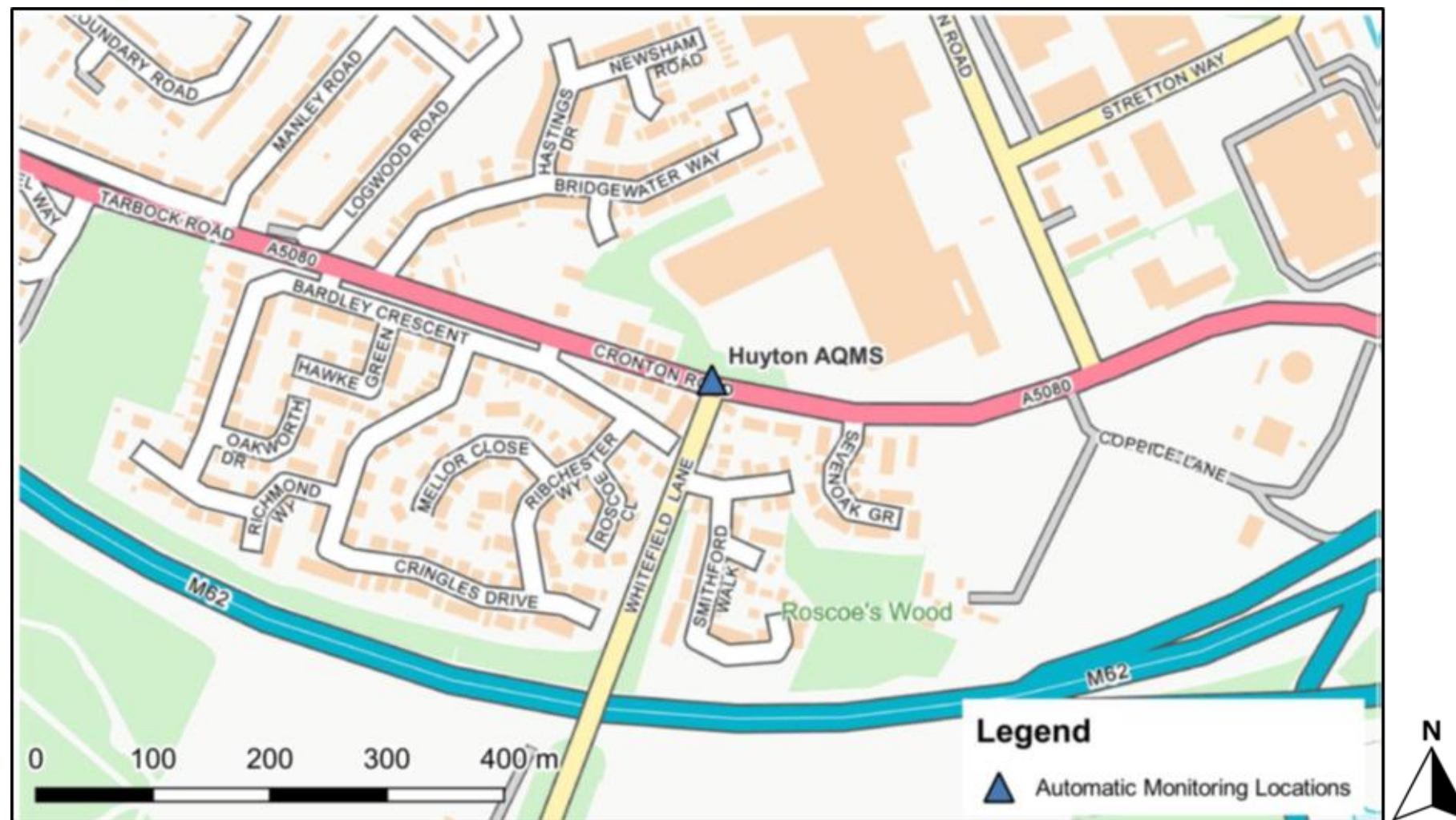
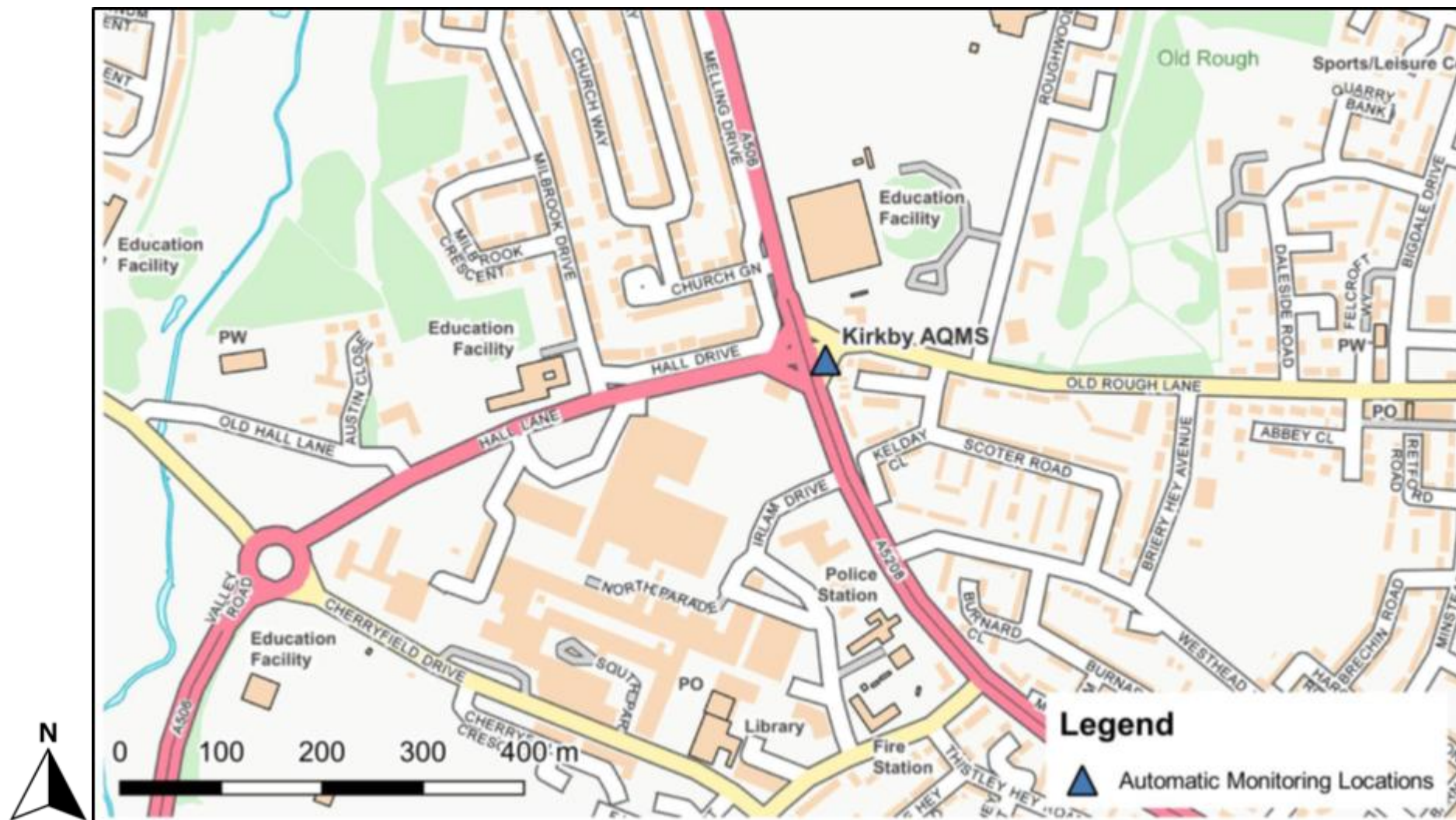


Figure D.2 – Map of Huyton Automatic Monitoring Station Site (Cronton Road)



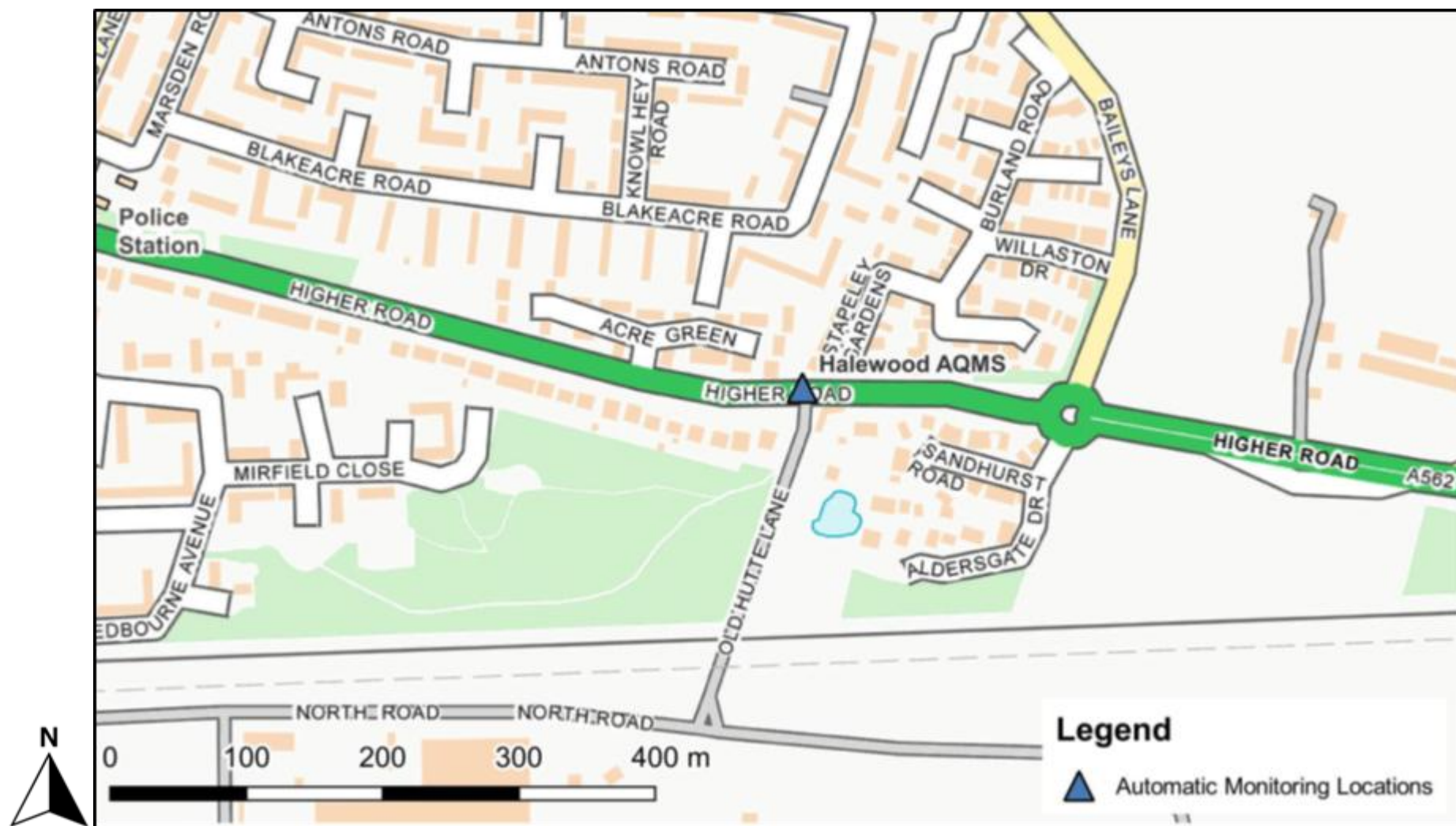
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Figure D.3 – Map of Kirkby Automatic Monitoring Station (Old Rough Lane)



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Figure D.4 – Map of Halewood Automatic Monitoring Station (Higher Road)



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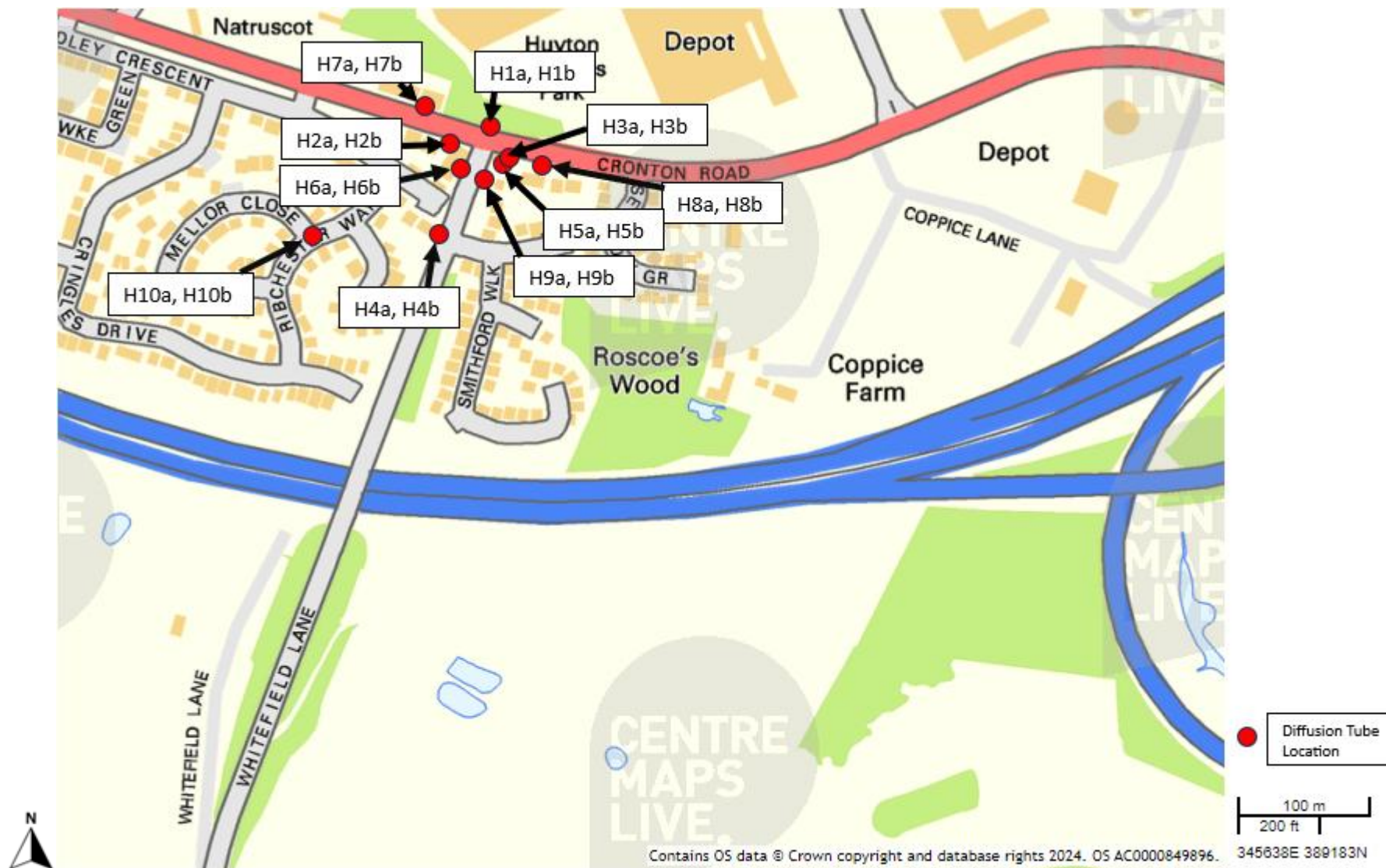
Figure D.5 – Map of Non-Automatic (Diffusion Tube) Sites in Huyton

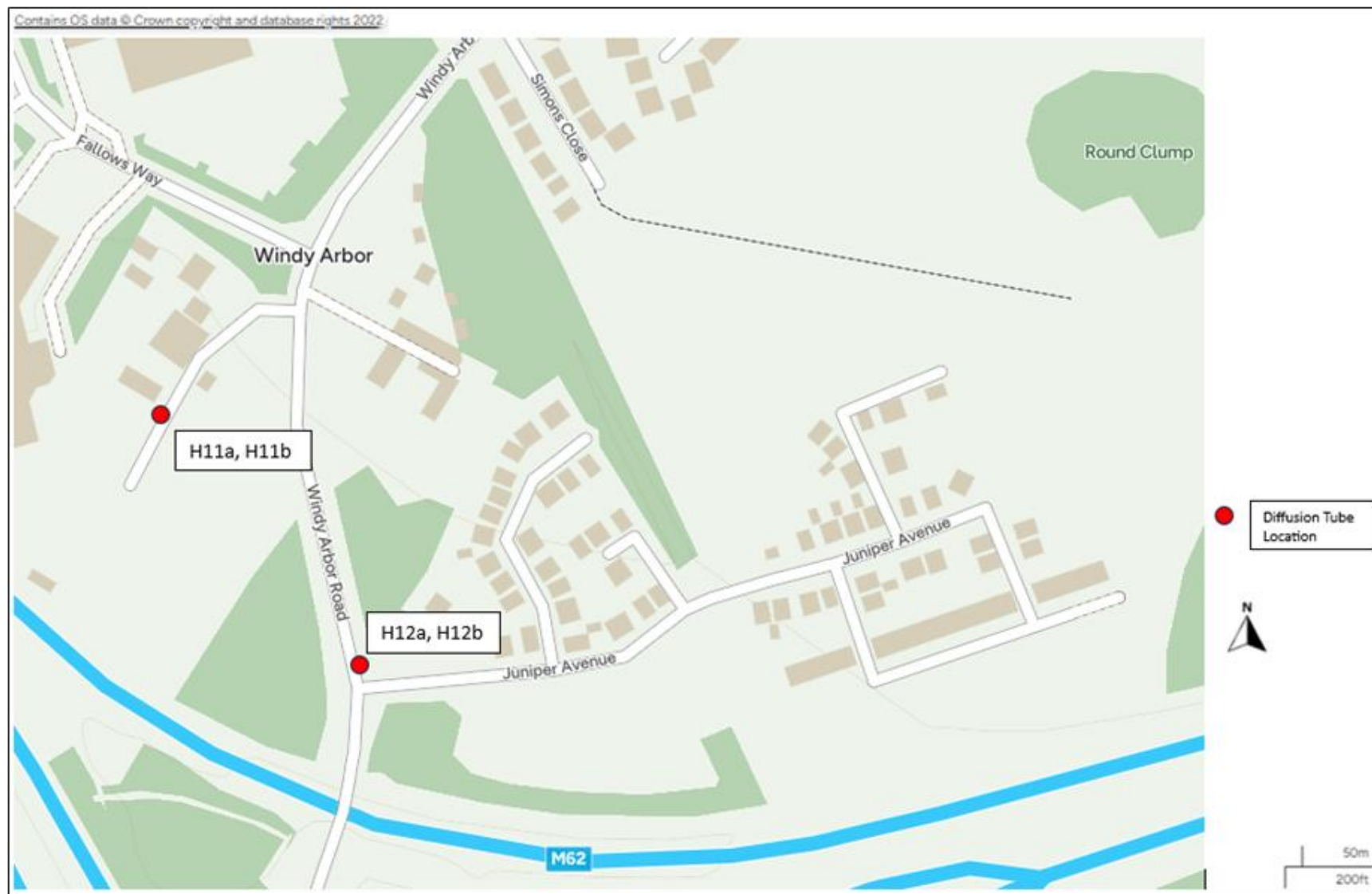
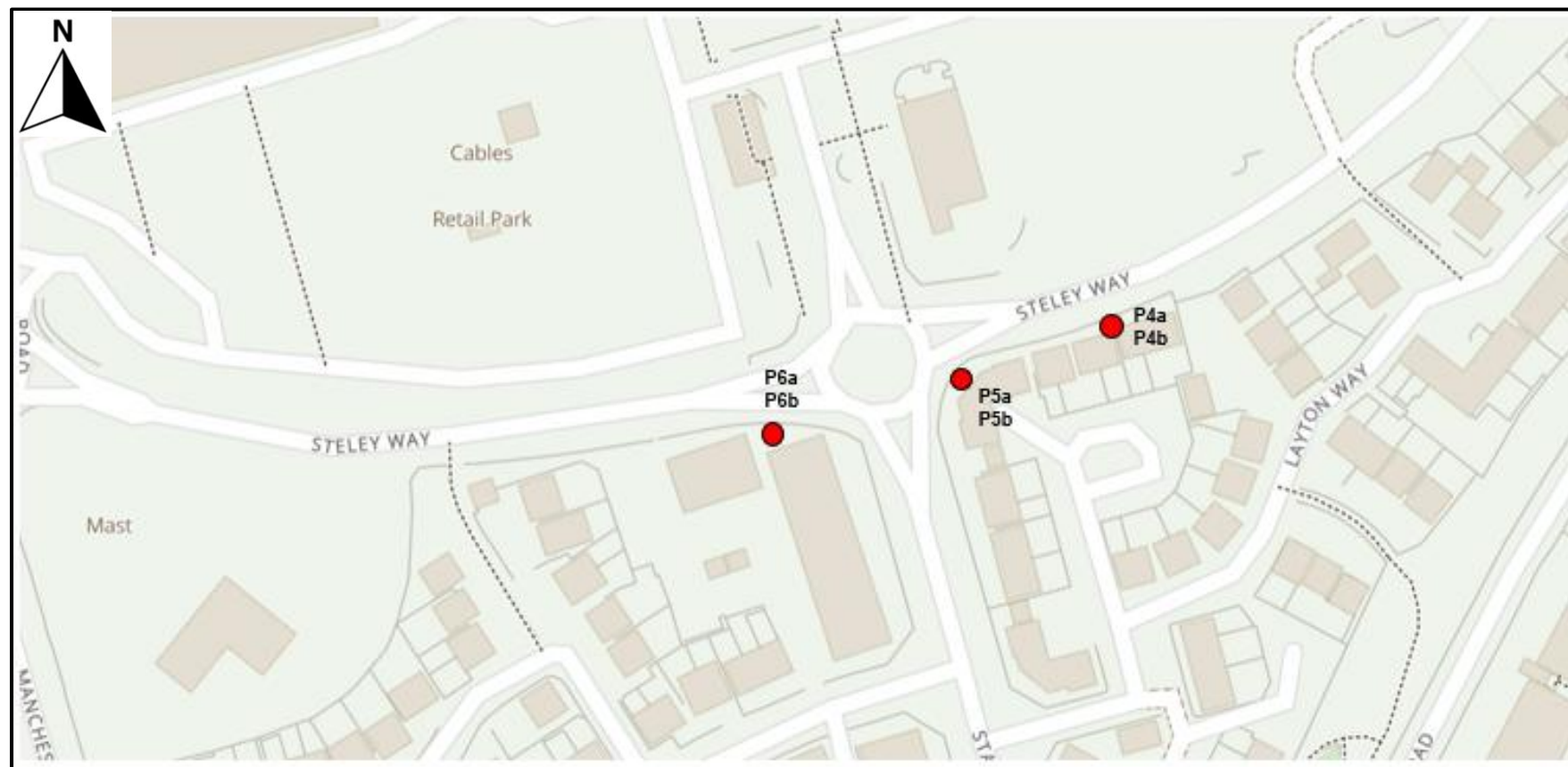
Figure D.6 – Map of Non-Automatic (Diffusion Tube) Sites in Huyton

Figure D.7 – Map of Non-Automatic (Diffusion Tube) Sites in Prescot

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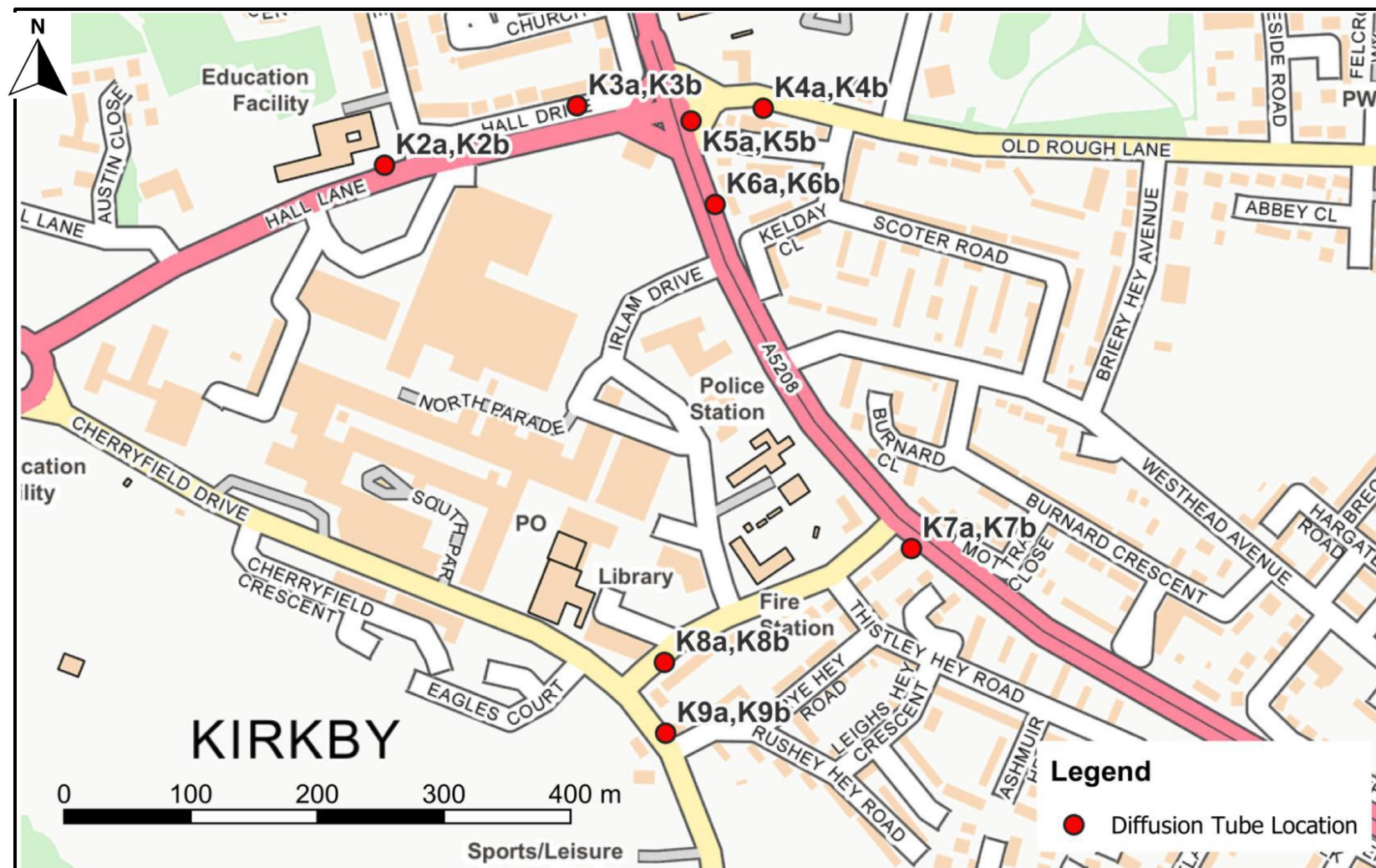
Figure D.8 – Map of Non-Automatic (Diffusion Tube) Sites in Prescot

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Figure D.9 – Map of Non-Automatic (Diffusion Tube) Sites in Prescott

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Figure D.10 – Map of Non-Automatic (Diffusion Tube) Sites in Kirkby (Town Centre)

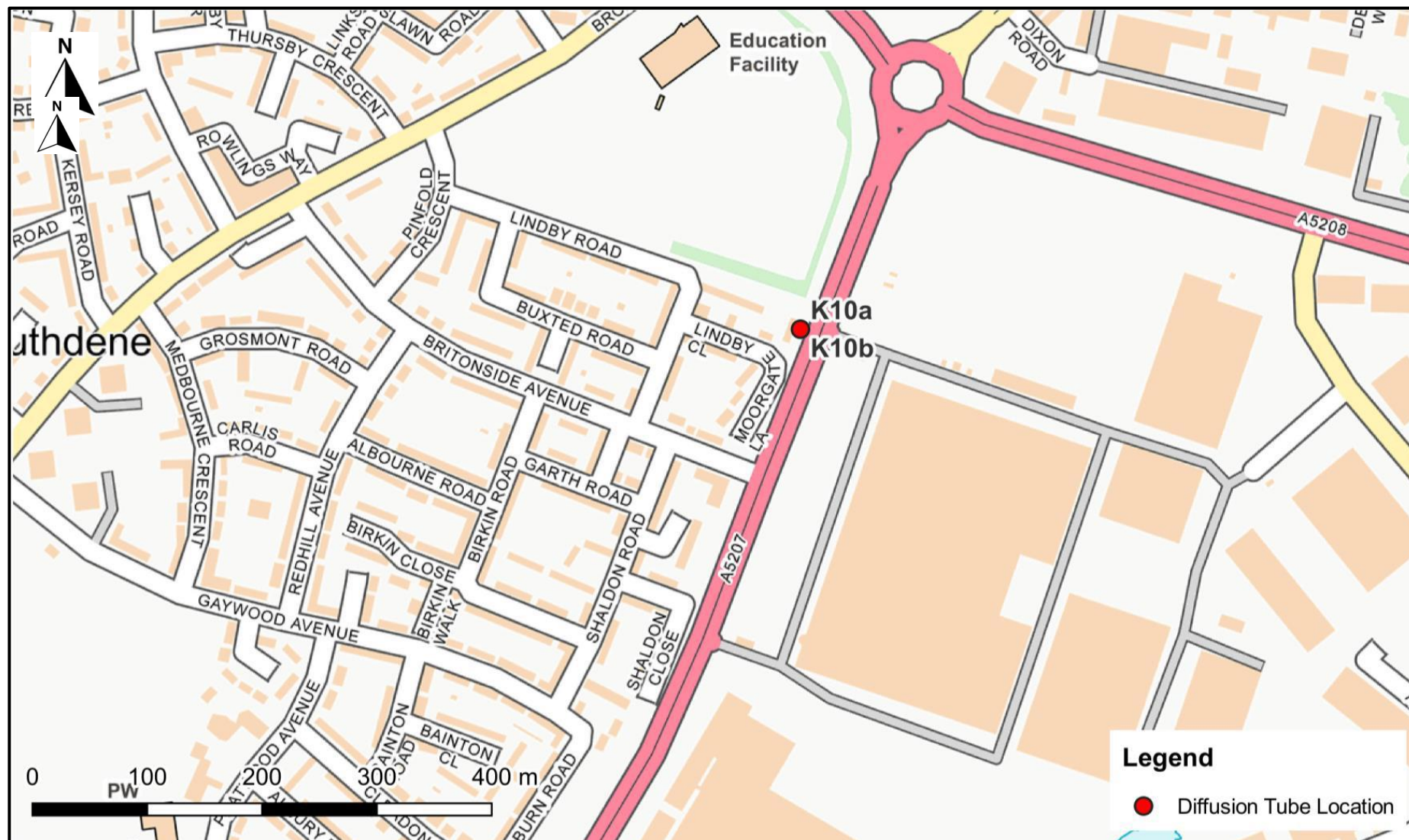


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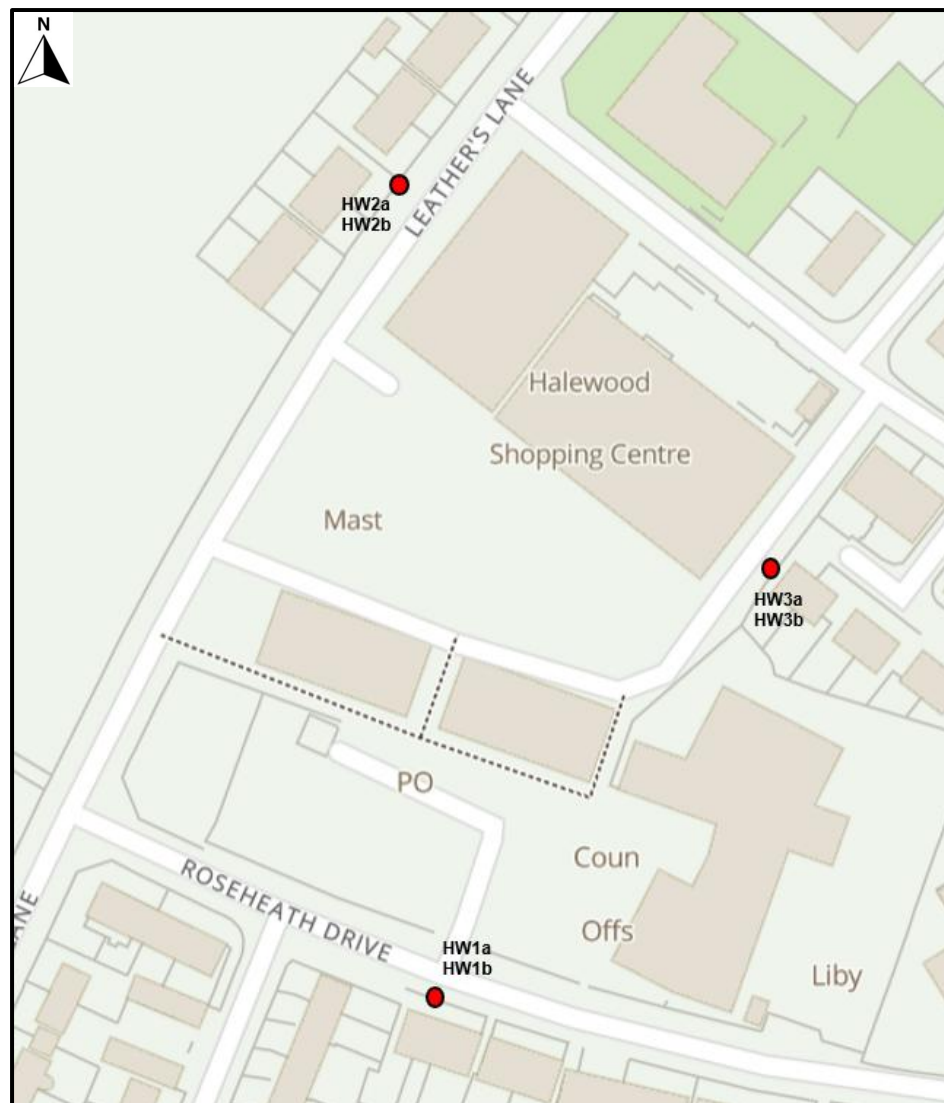
Figure D.11 – Map of Non-Automatic (Diffusion Tube) Sites in Kirkby (M57 Junction 6)

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Figure D.12 – Map of Non-Automatic (Diffusion Tube) Sites in Kirkby (Moorgate Road)



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Figure D.13 – Map of Non-Automatic (Diffusion Tube) Sites in Halewood

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Figure D.14 – Map of Automatic Monitoring Stations, Non-Automatic (Diffusion Tube) Sites and the EarthSense Zephyr Site in Huyton

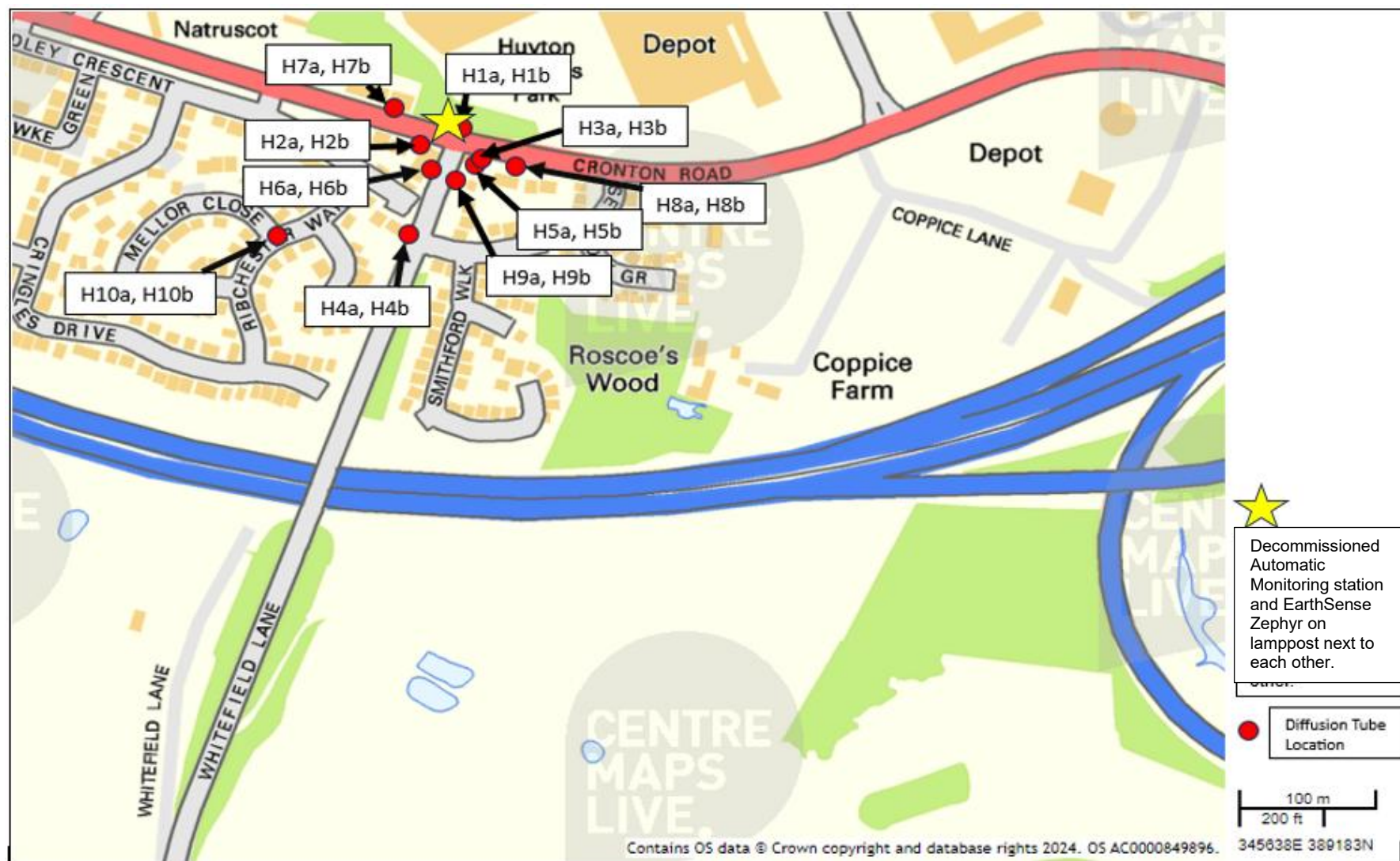
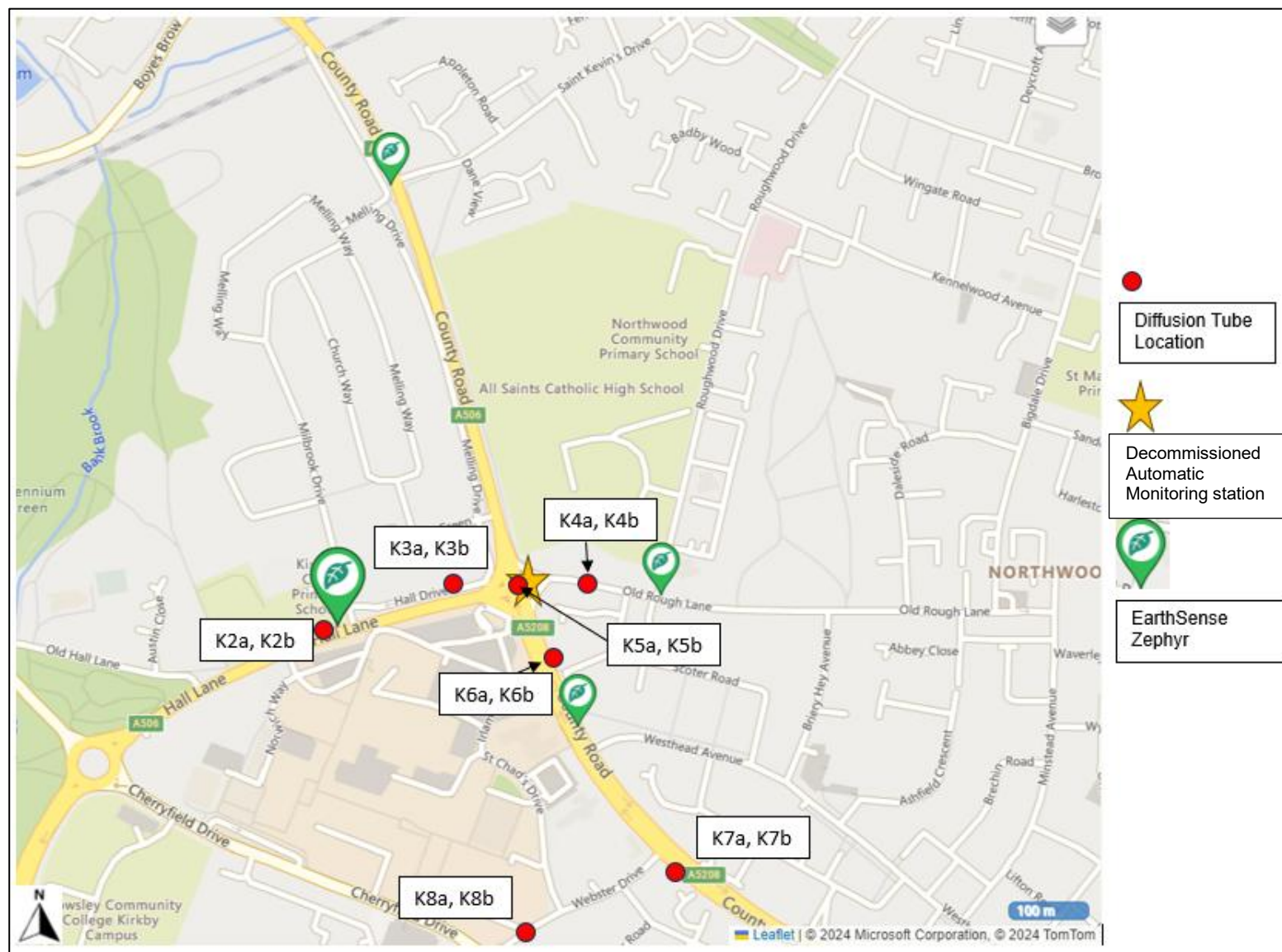
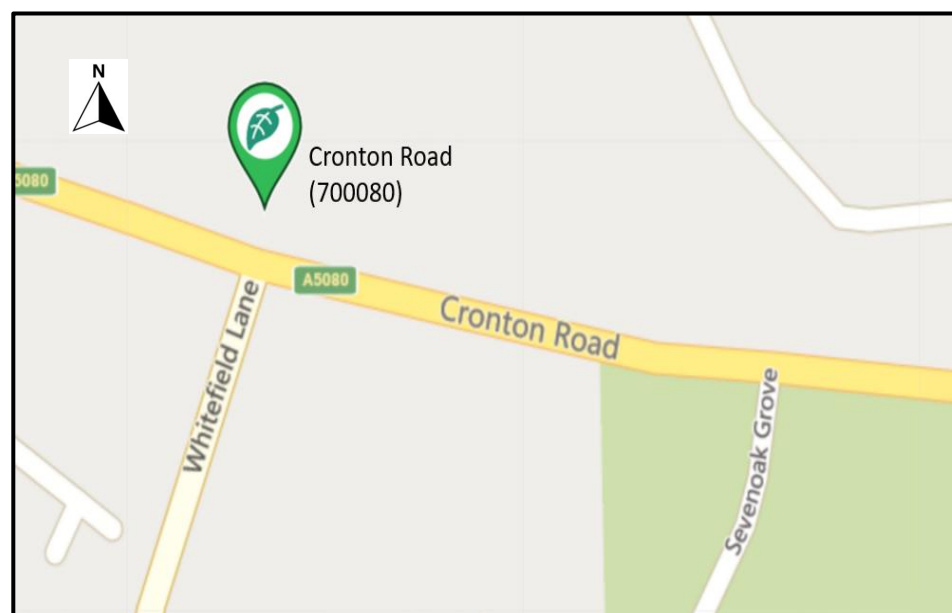
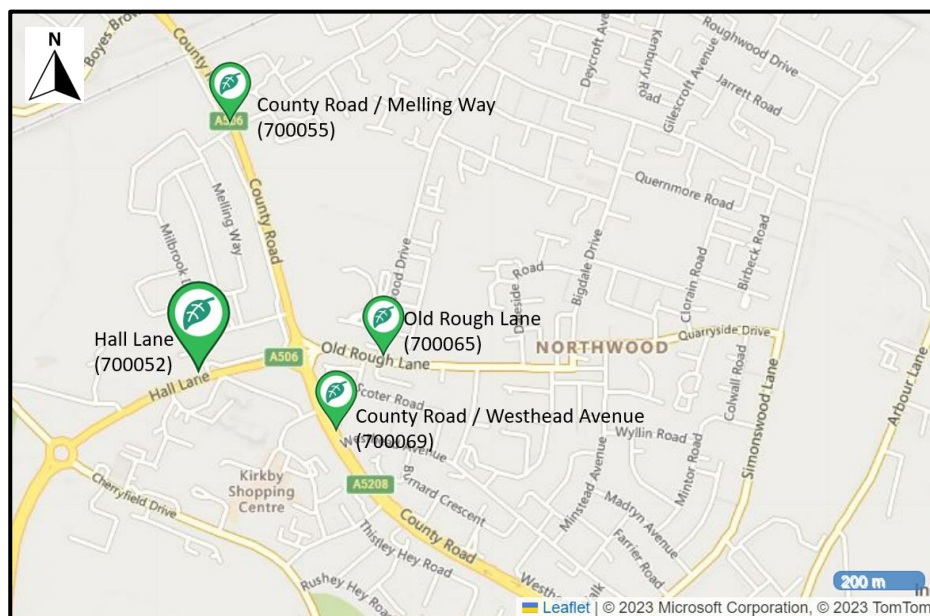


Figure D.15 – Map of Automatic Monitoring Stations, Non-Automatic (Diffusion Tube) Sites and the EarthSense Zephyr Site in Kirkby



Map(s) of Monitoring Locations of Zephyr Automatic Stations and Analysis of Monitoring Results

Maps of Monitoring Locations – Kirkby and Huyton



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England²

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

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates, and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides

² The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Abbreviation	Description
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO ₂	Sulphur Dioxide

References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022. 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.
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- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra.