



St. Helens
Council

2025 Air Quality Annual Status Report (ASR)

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

Date: 30th June, 2025

Information	<Local Authority Name> Details
Local Authority Officer	Emma Woodrow
Department	Place Services
Address	Atlas House, 2 Corporation St, Saint Helens WA9 1LD
Telephone	07935 010666
E-mail	emmawoodrow@sthelens.gov.uk
Report Reference Number	STC/ASR/2025
Date	30 th June 2025

Local Responsibilities and Commitment

This ASR was prepared by the Place Services (Environmental Health) Department of St Helens Council with the support and agreement of the following officers and departments:

- Ruth du Plessis- Director of Public Health
- Mike Petersen – Principal Environmental Health Officer (Place Services)
- Becky Pomeroy - Head of Regulation (Place Services)
- David Saville- Principal Transport Officer (Policy, Place Services)
- Joe Nanson – Development Control Manager (Strategic Growth, Place Services)

This ASR has been approved by:

Mike Petersen, Principal Environmental Health Officer and Ruth Du Plessis, Director of Public Health.



Principal Environmental Health Officer



Director of Public Health

This ASR has been approved by a Director of Public Health.

If you have any comments on this ASR please send them to Emma Woodrow at:

Atlas House, 2 Corporation St, Saint Helens WA9 1LD

01744 676789

environmentalhealth@sthelens.gov.uk

Executive Summary: Air Quality in Our Area

Air Quality in St Helens Council

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.

St Helens is a metropolitan borough of Merseyside and covers an area which includes the settlements of Sutton, St Helens, Earlestown, Rainhill, Rainford, Eccleston, Clockface,

Haydock, Billinge and Newton-le-Willows. St Helens is home to 183,200 people according to the 2021 Census.¹

St Helens consists of large areas of agricultural land and some industry, having a long association with glassmaking. There are two motorways that run within the Borough, the M6 and M62. The predominant source of pollution within the Borough is nitrogen dioxide from traffic.

St Helens monitors nitrogen dioxide using four continuous monitors and 32 passive diffusion tubes. Particulate matter is measured at one location via a continuous monitor.

The general overall trend within St Helens was decreasing levels of nitrogen dioxide and particulate matter over the last 5 years with occasional exceptions. It should be noted, the majority of the 2024 diffusion tube results show a general reduction trend compared to pre covid levels. All four air quality management areas (AQMAs) have levels of nitrogen dioxide below the national objective at the closest sensitive receptors for 2024. The NO₂ concentrations at all the stations apart from Borough Road have shown a continuous decrease in levels. It should be noted that due to equipment failure there was insufficient NO₂ data for Southworth Road and insufficient PM₁₀ data for Linkway. The data collected was annualised to generate the final annual figure. The monitor at Southworth Road is currently still broken. St Helens Council are currently looking into replacing all four NO₂ monitors.

St Helens works with other Local Authorities and key stakeholders through groups such as the Merseyside and Cheshire air quality group.

St Helens has declared four air quality management areas (AQMAs) which can be viewed using the following link <https://sthelens.gov.uk/article/5188/Air-quality-monitoring>. There have been no new AQMAs declared since 2011 and there are no further areas which have been identified as requiring declaration.

The Liverpool City Region (LCR) task force closed down in 2020. However, the main output was the combined authority action plan in which can be found using the following link <https://www.liverpoolcityregion-ca.gov.uk/improving-our-air-quality>.

¹ [St. Helens population change, Census 2021 – ONS](#)

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.

For the past five years, only one of the four AQMAs have had exceedances. Once new automatic monitoring equipment has been purchased, St Helens Council will be looking to revoke the Linkway, High Street and Southworth Road AQMAs. Even though measures to improve air quality within our AQMAs is important, St Helens recognises that is equally as important to ensure the rest of the Borough does not become an AQMA, thus having many Borough wide air quality objectives.

The Air Quality Action Plan (AQAP) has now been published. A link to the AQAP can be found here:

<https://sthelens.gov.uk/article/5188/Air-quality-monitoring>

The individual actions set out below have been drawn from the AQAP.

1. ***Carr Mill Rail Station Redevelopment***

This project focuses on the proposed construction of a new rail station at Carr Mill along with new residential units, new commercial/retail space, car parking and a new access road. The project is currently at feasibility stage with several designs being considered. This scheme would promote the use of public transport as an alternative to private car travel. It cannot be determined for certain if this will be delivered during the lifespan of this particular AQAP, as no funding route has been identified or agreed at present. but regular updates will be provided in ASRs.

St Helens will be working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Network Rail and third-party landowners.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

Quantification of emission reductions is not possible at this stage due to the project still being at design phase.

2. ***By Ours Cowley Hill Liveable Neighbourhood***

By Ours is a partnership project with St Helens Borough Council, the Liverpool City Region Combined Authority and Sustrans, funded by the Freshfield Foundation. By Ours Cowley Hill is a community project helping residents, businesses and schools design our local streets. The project is designing a safer, more vibrant neighbourhood where more people walk to the shops and services, stop and chat to each other and children can play out. This will encourage people to take more journeys on foot, bike, or other active transport modes, reducing carbon footprint. It is currently estimated that the project has been completed in March 2024.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

3. *St Helens Multi Modal Interchange SHMMI / Connected Places*

This project forms part of transformational regeneration in St Helens town centre, which includes for a new bus station and active travel provisions to encourage public and sustainable transport use. The project will be delivered by Autumn 2026.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Bus Operators, Department for Transport, the English Cities Fund and St Helens Town Deal Board.

It should also be noted the Liverpool City Region Combined Authority (LCRCA) has an authority wide strategy which focus on the whole of Merseyside [Spatial Development Strategy](#).

As commented on by the LCRCA “This facility will be the hub for the franchised St Helens network. This is seen as important for improving the attractiveness of bus services by providing a better waiting environment leading to greater satisfaction levels and thus contributes to the “excellent passenger experience” pillar of the Liverpool City Region Bus Service Improvement Plan.”

Following the successful business case all funding to deliver the SHMMI/connected places scheme have been secured. Works commenced on site in October 2024 and due for completion of the temporary bus hub by Spring 2025 and works commencing on the permanent bus station in Spring 2025 with completion expected by autumn 2026.

The project focuses on general air quality improvements but is likely to have positive impacts for the AQMAs 3 and 4.

As part of the regeneration, detailed air quality modelling will be carried out. These findings and the impacts they will have on air quality will be reported in the upcoming Air Quality ASRs.

4. *Green Bus Routes (Hydrogen Buses)*

St Helens Council is working with the Liverpool City Region Combined Authority and Merseytravel as part of their project to improve the local bus network. The 10A service buses within the borough of St Helens has been identified as one of the busiest routes in the City Region. Key features of the project include the introduction of hydrogen buses, smart traffic lights that go green for buses, junction upgrades to get buses past traffic, bus priority lanes and bus stop and shelter upgrades. The outcome is to create more efficient and attractive bus services that in turn will result in more bus journeys, with a modal shift from private car travel. The first phase of hydrogen buses commenced operation in June 2023 with the wider suite of bus priority measures due to be rolled out across the Liverpool City Region by 2027.

This project will improve congestion and air quality along the bus route, which includes AQMA 3.

The 10A Bus travels along the Borough Road AQMA approximately 15 times per day. According to the Road Traffic Statistics, Department for Transport, 188 bus trips are expected per day. Using the Emissions Factor toolkit, conventional buses are predicted to contribute 15.2% to NO₂ emissions or 7.62µg/m³. Having 15 less conventional bus trips per day equates to an 8% reduction in bus journeys per day. In theory this would result in an NO₂ reduction of 0.61µg.m³ in the Borough Road AQMA.

5. *St Helens Central to St Helens Junction Disused Railway Line*

A feasibility study is now complete exploring reuse of the St Helens Central to St Helens Junction disused rail line. In addition to considering reintroduction of rail services, the project has explored alternative sustainable travel usage such as walking, cycling, bus, autonomous travel pods, etc. The study concluded in early Autumn 2024. It may be that repurposing the line may be the most realistic way forward and could be addressed through the options assessment process.

St Helens Council are working with various organisations on this project including Network Rail, Northern Rail, Merseytravel and the Liverpool City Region Combined Authority.

The project focuses on general air quality improvements but is likely to have positive impacts for AQMAs 3 and 4.

Viability of the scheme is being carried out currently. Quantification of emission reductions is not possible at this stage due to their being no firm plans in place.

6. *Omega West Transport Strategy*

The aim of this project is to improve transport from areas in St Helens to ensure local residents within some of our most deprived areas (in particular Parr, Clock Face and Bold) are able to easily access the Omega West strategic employment site and its multiple opportunities. This will promote sustainable transport and have positive impacts on air quality, in reducing car dependency.

St Helens Council has been working with various organisations on this project including Miller Developments, Merseytravel, the Liverpool City Region Combined Authority, Warrington Borough Council and unit occupiers.

In January 2025 the new 921 omega west bus service is due to launch linking St Helens residents to employment opportunities at this strategic site. Supported by dedicated recruitment events delivered by the councils' ways to work team. It is proposed a second bus service which is the 922 Omega West is scheduled to launch in Summer 2025.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

As this scheme aims to encourage public transport, a quantification study of the emissions is not feasible at this stage.

7. *A580 East Lancashire Road (ATR1)*

This project is a proposed walking and cycling investment along the A580 East Lancashire Road adjacent to the westbound carriageway infrastructure, between Carr Mill and the Wigan Borough Boundary, adjacent to Haydock Industrial Estate. Public consultation was complete during Autumn 2023 and subsequently the completion of detailed designs, these have been submitted to funding partners for consideration.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, Active Tavel England and Wigan Council.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

8. *Jubits Lane to Widnes (ATR2)*

This project is a proposed walking and cycling investment designed to run from King George V Playing fields to the south of Bell Lane in Sutton Manor. Detailed design activity

has been commissioned, which would further extend the project to the boundary with Halton Borough Council. Following completion of detailed designs and further public consultation scheduled for Spring 2025. The Council will pursue funding opportunities for the scheme's delivery.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Active Travel England and Forestry England.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

9. *Lea Green to Whiston Hospital (ATR3)*

The Council has since successfully secured £2.24m from Active Travel Tranche 4 funding from Active Travel England to commence a phased delivery of construction along the Lea Green Station to Whiston Hospital Active Travel Route (ATR3), pursuant to the provision of a continuous well-connected sustainable network back to the St Helens Southern Gateway Cyclops scheme. Construction commenced in Summer 2024 and is scheduled for completion by Summer 2025.

St Helens Council will be working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Active Travel England and Knowsley Borough Council.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

10. *St Helens Southern Gateway*

This £14.8m overall project includes £4.8m of funding awarded directly to St Helens Council from the Liverpool City Region Transforming Cities Fund. The project includes 6 cycle routes and a 'CYCLOPS' junction, being the first in the Liverpool City Region. Wider elements of this project include significant upgrades to facilities at Lea Green Rail Station, including better provision for sustainable modes, electric vehicle charging infrastructure, and an improved Park & Ride facility. The CYCLOPS and highway improvement elements of the project were completed in September 2023 and the main Lea Green Rail Station component is now scheduled for completion for April 2025.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Northern Rail and Network Rail.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

11. *Digital Infrastructure Project*

The strategic vision of this St Helens Town Deal project is to *“Improve digital connectivity across the town centre, by investing in the necessary digital infrastructure to enable the St Helens Borough Council to deliver its wider economic, social, and environmental strategic priorities.”*

The project will reduce the need for travel as it allows people to access a digital economy. It promotes working from home and allows businesses in the town centre to operate in a digital way. The preferred deliver partner was appointed in Winter 2025. The company is called Elevate. The works are due to commence Spring 2025 and scheduled for completion by Winter 2026.

St Helens Council are working with various organisations on this project, including the Liverpool City Region Combined Authority and St Helens Town Deal Board.

The project focuses on general air quality improvements but there are potential positive direct impacts for the AQMAs 3 and 4.

As this scheme encourages it home working it is not feasible at this stage to quantify emission reductions.

12. *Glass Futures*

Glass Futures is a new development of global significance located within St Helens. The site is a research and development site that connects the glass industry with academia in order to develop ways of making glass more sustainably. Along with this, by becoming more resilient on making glass (an infinitely recyclable product), this in turn will reduce the need for manufacturing by non-recyclable products and importing. Glass Futures will also undertake research and development activity into production using low carbon fuels.

Glass making produces various pollutants such as Nitrogen Dioxide and thus, given the volume of glass produced in St Helens, Glass Futures will have positive impacts for reduced emissions. It should be noted that hydrogen burning still produces high volumes of NO_x which will be monitored through the conditions of the permit. While St Helens is directly involved in the planning and permitting processes of the Glass Futures development, any improvements would be delivered by Glass Futures.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

13. *Parkside Link Road*

As part of the multi-phased Parkside development project, Parkside Link Road is now complete and scheduled for opening by Spring 2025. This new link road (supported by a dedicated freight signage strategy) will result in the redistribution of traffic away from the local traffic network and onto the new strategic route, securing a more efficient and effect flow of vehicles, particularly Heavy Goods Vehicles (HGVs).

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, National Highways, Wigan Council, TFGM, and Warrington Borough Council.

The project focuses on general air quality improvements but there are potential positive direct impacts for the AQMAs 1 and 2.

St Helens will assess the need to carry out air quality monitoring along the new link road on a regular basis.

14. *Parkside Strategic Rail Freight Interchange*

The St Helens Local Plan Core Strategy (2012) identified Parkside as a strategic location for a Strategic Rail Freight Interchange (SRFI), and the St Helens Borough Local Plan to 2037 has allocated of land for a SRFI with an operational area of approximately 64.55ha to the east of the M6, and 5.58ha to the west of the M6. The site comprises two elements: Parkside East is the proposed location of the SRFI (together with other industrial and logistics uses) and Parkside West is a separate, though linked, employment land allocation that will be served by road only, although it will accommodate a reception siding for incoming freight trains that could in turn be linked to Parkside East.

Parkside East will strongly support the aims of building a robust northern economy, promoting the use of the national rail infrastructure, and reducing congestion and carbon emissions by shifting freight movement from road.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, National Highways, Network Rail, the Liverpool City Region Freeport, and site developers.

The project focuses on general air quality improvements but there are potential positive direct impacts for the AQMAs 1 and 2.

In the event of a formal planning application, a detailed air quality would be submitted detailing an accurate prediction of changes in air quality levels. If and when this is received, it will be reported within the relevant ASR.

15. *Vehicle Replacement/ Retrofit Project*

This project was awarded £0.650m by the Department of Environment, Farming and Rural Affairs (DEFRA) Air Quality Grant to support taking some of the worst polluting vehicles off the road and replacing them with newer, more efficient vehicles while also supporting local businesses, thereby quickly delivering quantifiable reductions in NO₂ emissions.

St Helens Council was working with St Helens Chamber and grant applicants on this project.

The project focuses on general air quality improvements and will not have direct impact on any designated St Helens AQMAs.

The project was completed in March 2025 and a report will be prepared and issued to Defra October 2025. In this report, details about the reduction in emissions will be quantified.

16. *Indoor Air Quality Project*

St Helens Council and Warrington Borough Council aim to make air quality improvements across their local areas by delivering a range of activities that focus on indoor air quality through monitoring air pollutants in households with underlying respiratory illness (i.e., asthma) and offering targeted education/awareness to help meet our Councils' statutory duties under the Environment Act 1995.

The project is will deliver 500 health education interventions in households (over 200 indoor air quality monitors have been installed so far) for people who suffer from asthma in areas of poor air quality and in areas of high deprivation. It is proposed to achieve this by:

1. Monitoring indoor air quality in households where people are at increased risk of exacerbation of respiratory disease and adverse effects from air pollutants (such as CO₂, relative humidity, temperature, PM₁, PM_{2.5}, and volatile organic compounds - VOC).
2. Raising awareness of how to improve indoor air quality through targeted education and campaigns that have been co-designed with our residents.
3. Raising awareness of the impact of domestic burning on indoor air quality and respiratory conditions. In addition to this we will engage with residents to understand how

the cost-of-living crisis affects the decisions they make and where appropriate refer them for any financial support that may be available.

This is one of the few projects focusing on indoor air quality and thus is being formally evaluated. The evaluation is due in the autumn of 2025.

St Helens Council is working with the Warrington Borough Council on this project.

The project will deliver general, wider air quality improvements but will focus on areas of deprivation and poorer air quality (including AQMAs) within the boroughs of Warrington and St Helens.

Due to the nature of the scheme, the quantification of emission reductions cannot be calculated.

17. *Electric Vehicle Charging Infrastructure Strategy*

A St Helens Electric Vehicle Charging Infrastructure (EVCI) Strategy and Delivery Plan has been adopted by the Council. St Helens assisted the Liverpool City Region Combined Authority with the City Region submission of their initial Local Electric Vehicle Infrastructure (LEVI) funding application in securing £9.6 million. An Electric Vehicle (EV) Co-ordinator role has been created at the Combined Authority who leads on creating a regional strategy with regional procurement scheduled for completion by early Autumn 2025 in securing a supplier or suppliers to roll out a charging network across the region. St Helens has identified an initial tranche of sites within its draft EV Strategy and will continue to develop a package of sites for potential delivery once a supplier is on-boarded with new infrastructure scheduled for installation by late Autumn 2025.

St Helens Council will be working with various organisations on this project including the Liverpool City Region Combined Authority, Department for Transport, other government departments, and external EVCI market.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

18. *Local Cycling and Walking Infrastructure Plan (LCWIP)*

The Local Cycling and Walking Improvement Plan was adopted by the Council in Spring 2023 and sets out several key routes that would benefit from upgraded infrastructure to encourage active travel journeys. There are two plans in place; firstly, a strategic plan that encompasses the Liverpool City Region and the second is St Helens Borough focussed.

Through facilitating a shift of local journeys from private cars to walking and cycling, improved active travel infrastructure has a range of beneficial impacts, including contributing to a net zero borough, improved air quality, better health and wellbeing, and improved connectivity, particularly for deprived communities. Increased walking and cycling rates, better physical activity levels, reduced transport poverty and transport related air pollution. This is a 10-year strategy, due to end in Spring 2033.

St Helens Council will be working with various organisations on this project including the Liverpool City Region Combined Authority, Active Travel England and Sustrans.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

The council continues to process with the scheme delivery along with developing a pipeline of smaller (missing links) active travel schemes, ensuring the council's position in securing future funding opportunities when available.

As this project focuses on behaviour changes, quantification of benefits is not feasible.

19. *Transport and Travel Supplementary Planning Document (SPD)*

A new Transport and Travel SPD has been adopted and echoes national guidance, policy and local commitments to climate change by refocusing on active and inclusive travel (walking, wheeling and cycling), public transport and zero emission vehicles. It was consulted on in Winter 2023 and formally adopted in Spring 2024.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

20. *Emerging Local Transport Plan 4 (LTP4)*

The emerging LTP4 will:

“Set out plans, policies and ambitions for transport services and transport investment in the city region until 2040. The current LTP3 was published in 2011 in two separate documents (covering Merseyside and Halton) and needs to be updated with input from the public.

With a clear vision and goals, the plan provides a blueprint for making the public transport network more integrated, sustainable and accessible to all – which are the key pillars of Liverpool City Region Mayor Steve Rotherham's vision for a London style transport system.

It sets out what transport needs to do in order to continue to support communities, our economy and the Combined Authority's wider objectives as a city region, looking at our overarching ambitions for rail, bus, active travel and more. It also recognises that we live in uncertain times, and where new technology is also changing how we work, live and travel."

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority, Merseytravel, Active Travel England and Department for Transport.

During October 2024, an initial round of public engagement was carried out for which it is scheduled for adoption for late 2025.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

21. *Climate Action Plan*

As well as the global Climate Change Emergency and the Council's own commitment to achieving a net zero carbon position by 2040, the challenge to reduce energy consumption and drive budget savings at this time of crisis is acute. The rising cost of energy creates an added imperative to improve the energy efficiency of buildings and to rationalise the estate where possible to drive efficiencies and reduce budget pressures.

St Helens Council have adopted a [Climate Action Plan](#) and the LCRCA have adopted a [Five Year Action Plan](#) to help address these issues and is working with a range of organisations and stakeholders on this project. The Climate Action Plan will have general, wider air quality benefits as opposed to being focused on the existing designated AQMAs.

22. *Raise Awareness of Air Quality (AQ)*

St Helens Borough Council aims to ensure that the general public within St Helens are aware of the impacts of poor air quality on health. This will be carried out through applying for Defra funding to create project opportunities and to provide air quality information on the council websites and through events. Examples of how this can be achieved include:

- The [St Helens Road Safety Strategy 2023-27: Working towards vision zero 2040](#) (2023) has recently been published to help secure a reduction in collisions. This may indirectly also have positive impacts to air quality as safer driving may increase vehicle efficiency, which in turn will improve air quality. The Road Safety Strategy

encompasses a comprehensive approach that addresses not only motor vehicles but also pedestrian and cycling infrastructure. The enhancement and implementation of safe pedestrian and cycling facilities are expected to yield favourable outcomes in terms of road safety and air quality. This is predicated on the notion that an increased public preference for alternative (environmentally friendly) modes of transportation will have a direct correlation with the initiatives previously outlined. Furthermore, the Road Safety Strategy Action Plan includes references to the Bikeability and School Streets projects, both of which share the common objective of diminishing the volume of vehicular traffic during the school commute. This concerted effort is anticipated to return a beneficial effect on air quality.

- The Clean Air for Schools Project – 2,000 schools (including some located within St Helens Borough) are taking part of the [Clean Air For Schools project](#). The aim of the project is to reduce traffic volumes outside schools, improve indoor air quality (i.e. through ventilation), create low pollution habits which will be carried over into children's adulthood and use the younger generations voice in encouraging local and national air quality improvements.
- Clean Air Crew - The Liverpool City Region Combined Authority (including St Helens) has been using funding to grant children free air quality education through the interactive website of the [Clean Air Crew](#).

Along with NO₂ emissions, we aim to become more knowledgeable in our local particulate matter emissions through improved air quality monitoring. Once a better idea of what the local particulate matter emissions are, this can inform what future actions we take.

A big focus over the next 5 years is to bid for government funding for projects which will have direct positive impacts on air quality within the AQMAs.

23. *Procuring Low Emission Vehicles for Council-Owned Fleets*

The Council has developed an ongoing strategy to replace ageing council vehicles with modern and electric alternatives, which will have long term air quality and economic benefits for the Borough.

St Helens Council are working with TPPL (The Procurement Partnership) a specialist public sector procurement services provider in supporting our compliant framework agreements in delivering this project.

There is a new EV charging infrastructure facility at the council's highways depot, supporting the council's roll out of electric vehicles.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

24. *Flexible Working and Home Working*

The Council has led by example in supporting staff well-being through the introduction and implemented of an agile, hybrid blended working model called Ways of Working (WoW) together programme. Whilst initially rolled out across the organisation in response to the Covid 19 pandemic, the programme has been retained and continues to be further developed to modernise our working practices. The next phase is to determine how best we can promote it. This doesn't just cover working hours, locations, and workstyles; it is about being responsive and adaptive to service needs, embracing innovation and utilising technology.

Through the use of new agile hubs which are designed to allow people to work in an agile way, offering different types of spaces that facilitate service needs, providing less space for desk-based work, as this can be done at home, but introduces breakout, touchdown and collaboration spaces making the office more about working with others and not working alone, improving individuals' mental health.

The successful agile programme has enabled greater flexibility and empowers employees to work smarter whilst maintaining a healthy work-life balance. Thus, less commuting by private car within the borough will have positive implications to local air quality.

The project focuses on general air quality improvements and will not have direct impacts on the existing designated St Helens AQMAs.

25. *Parking and Movement Strategy*

The parking and movement strategies aim to support the delivery of the wider St Helens Town Centre Regeneration programme while aligning with strategic policy objectives within the adopted Local Transport Plan, Borough Strategy, and associated strategies. In seeking to support the local economy through the provision of parking that is affordable and suitable, encourage the right parking behaviours and support the Council's environmental direction towards carbon neutrality by 2040, while promoting sustainable active travel and public transport modes.

The parking strategy will include improving the standard and quality of parking facilities and consider opportunities for consolidation to improve efficiency and accessibility of the existing parking assets within St Helens to improve the characteristics of place and distinguish between long and short stay as part of a demand management strategy. Its ambition is to keep people connected, and to create a net zero transport system by 2040, improving health and wellbeing, tackling the climate emergency, reducing private vehicle use and prioritising walking, cycling and the use of public transport.

The town centre 'interim movement strategy' was devised by the Council, the Liverpool City Region Combined Authority and ECF, working with public transport operators in July 2024. Ensuring that travel remains safe, easy and straightforward while the town centre undergoes its multi-million-pound transformation. This includes:

- The reprovision of new taxi ranks
- Relocated bus stops
- Introduction of a temporary bus hub on Chalon Way West
- New accessible blue badge parking facilities
- New way finding signage
- General promotion of public transport (bus, rail, taxi)

The project focuses on general air quality improvements but there are potential positive direct impacts for the AQMAs 3 and 4.

26. *Bikeability Programme*

This project involves the ongoing delivery of national standard on-road cycle training to young people and children in Merseyside through the national cycle training programme. Organised through schools, Year 5 to Year 7 pupils are offered Level 2 training that equips children with important skills to help them cycle on quiet roads. Years 7 to 8 and Year 9 (in high schools) are offered Level 3 training, which builds on Level 2 and is more advanced giving skills in dealing with busier roads and roundabouts. Training is free and offered to every school in Merseyside.

St Helens Council are working with various organisations on this project including the Liverpool City Region Combined Authority and Bikeright the projects delivery partner.

If implemented, the project will contribute to wider sustainable travel initiatives which should deliver wider air quality benefits.

Additional Actions

Since the AQAP was submitted, St Helens Public Health are leading an Active Travel Social Prescribing project, with the aim to enable active travel among young people with special educational needs and disabilities (SEND) and those from deprived households. The pioneering approach will see active travel and health officials work together to develop an approach to health improvement and tackling health disparities. In addition, we will also aim to increase active travel journeys for residents who may be physically inactive, By promoting current local offers such as St Helens Wellbeing Service Walks & Walk Leader programme with St Helens Wellbeing Service and group cycling sessions with Pedal Power.

Conclusions and Priorities

The general trend in NO₂ over the last five years had been a slow downward trend. St Helens Council are in the process of obtaining brand new replacement NO₂ automatic monitors for the Borough. Once the new monitors are in place, St Helens will start the process of revoking the Linkway, High Street and Southworth Road AQMAs.

In AQMA 1 all results are now below 40µg/m³. All concentrations at properties in this AQMA are below the national objective for annual mean NO₂.

In AQMA 2, annual mean concentrations of NO₂ have slowly reduced and have all been below the annual objective concentrations for many years. There are no measured exceedances within AQMA 2 at any location.

The monitored results from AQMA 3 (Borough Road) show fluctuating results and not a downward trend, this is probably due to the local conditions (large incline and street canyon) as the exceedances are only seen where terraced houses line either side of the street at diffusion tube locations 19 and 24. The fluctuations over the past 5 years are likely due to the impact of the weather and not interventions. More local targeted interventions are being planned in this area to secure improvements in air quality. In 2024, there were no

exceedances in the diffusion tube or automatic monitor data with the exception at Diffusion Tube locations 19 and 24 where an annual mean of 46.1 $\mu\text{g}/\text{m}^3$ was recorded.

The general trend is downwards in AQMA 4, and all monitored data in AQMA 4 is below the national objective for annual mean NO_2 . The monitored levels of Nitrogen dioxide in this location have been below the national objective for well over five years.

The main priority for reducing air quality in St Helens will be minimising impacts from new developments and providing targeted interventions to reduce Nitrogen dioxide. In 2024, St Helens submitted the Air Quality Action Plan (AQAP) and to implement as many measures as possible to reduce nitrogen dioxide emissions.

For AQMA 3 (Borough Road), the challenge will be finding innovative solutions to improve air quality in AQMA 3 and implementing all the projects in the draft action plan with limited budget and resources.

How to get Involved

An educational air quality website for children and schools was launched in 2019. A launch event with schools and key decision makers was held in Liverpool. Packs were sent out to all schools within the Liverpool City Region and a programme for schools to undertake their own air quality assessments using diffusion tubes was launched at the beginning of 2020. Further engagement with schools was placed on hold due to the restrictions in place as a result of the pandemic. It is hoped that the website will enhance the learning and engagement around air quality issues in schools and further engagement with schools can occur in the future. The website can be found at <https://kids.letscleartheairlcr.co.uk/>.

An air quality website for the public within the Liverpool City Region was also launched and maintained in 2020. This can be found at [Let's Clear The Air | Explore | Lets Clear The Air Liverpool City Region \(letscleartheairlcr.co.uk\)](https://lets-clear-the-air.liverpoolcityregion.gov.uk/) and contains information and publications relating to air quality within the LCR. Local air quality information can also be found on the councils dedicated web pages at

<https://www.sthelens.gov.uk/business/environmental-health/environmental-protection/air-quality/>.

All air quality information specific to St Helens Borough Council can be found at <https://www.sthelens.gov.uk/article/5188/Air-quality-monitoring> <https://www.sthelens.gov.uk/article/5188/Air-quality-monitoring>.

Table of Contents

Local Responsibilities and Commitment	i
Executive Summary: Air Quality in Our Area	iii
Air Quality in St Helens Council	iii
Actions to Improve Air Quality	v
Conclusions and Priorities	xix
How to get Involved	xx
1 Local Air Quality Management	1
2 Actions to Improve Air Quality	2
2.1 Air Quality Management Areas	2
2.2 Progress and Impact of Measures to address Air Quality in St Helens Council	5
2.3 PM_{2.5} – Local Authority Approach to Reducing Emissions and/or Concentrations	11
3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance	13
3.1 Summary of Monitoring Undertaken	13
3.1.1 Automatic Monitoring Sites	13
3.1.2 Non-Automatic Monitoring Sites	13
3.2 Individual Pollutants	14
3.2.1 Nitrogen Dioxide (NO ₂)	14
3.2.2 Particulate Matter (PM ₁₀)	15
3.2.3 Particulate Matter (PM _{2.5})	15
Appendix A: Monitoring Results	16
Appendix B: Full Monthly Diffusion Tube Results for 2024	33
Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC	35
New or Changed Sources Identified Within St Helens Council During 2024	35
Additional Air Quality Works Undertaken by St Helens Council During 2024	35
QA/QC of Diffusion Tube Monitoring	35
Diffusion Tube Annualisation	36
Diffusion Tube Bias Adjustment Factors	37
NO ₂ Fall-off with Distance from the Road	38
QA/QC of Automatic Monitoring	40
PM ₁₀ and PM _{2.5} Monitoring Adjustment	42
Automatic Monitoring Annualisation	42
NO ₂ Fall-off with Distance from the Road	43
Appendix D: Map(s) of Monitoring Locations and AQMAs	44
Appendix E: Summary of Air Quality Objectives in England	49
Appendix G: Major Planning Applications (2024)	50

Glossary of Terms	66
References	67

Figures

Figure A.1 – Trends in Annual Mean NO ₂ Concentrations.....	23
Figure A.2 – Trends in Number of NO ₂ 1-Hour Means > 200µg/m ³	26
Figure A.3 – Trends in Annual Mean PM ₁₀ Concentrations	28
Figure A.4 – Trends in Number of 24-Hour Mean PM ₁₀ Results > 50µg/m ³	30
Figure A.5 – Trends in Annual Mean PM _{2.5} Concentrations	32
Figure D.1 – Map of Non-Automatic Monitoring Site.....	44

Tables

Table 2.1 – Declared Air Quality Management Areas.....	3
Table 2.2 – Progress on Measures to Improve Air Quality.....	8
Table A.1 – Details of Automatic Monitoring Sites	16
Table A.2 – Details of Non-Automatic Monitoring Sites	16
Table A.3 – Annual Mean NO ₂ Monitoring Results: Automatic Monitoring (µg/m ³).....	20
Table A.4 – Annual Mean NO ₂ Monitoring Results: Non-Automatic Monitoring (µg/m ³)	21
Table A.5 – 1-Hour Mean NO ₂ Monitoring Results, Number of 1-Hour Means > 200µg/m ³	25
Table A.6 – Annual Mean PM ₁₀ Monitoring Results (µg/m ³)	26
Table A.7 – 24-Hour Mean PM ₁₀ Monitoring Results, Number of PM ₁₀ 24-Hour Means > 50µg/m ³	29
Table A.8 – Annual Mean PM _{2.5} Monitoring Results (µg/m ³).....	31
Table B.1 – NO ₂ 2024 Diffusion Tube Results (µg/m ³)	33
Table C.1 – Annualisation Summary (concentrations presented in µg/m ³).....	36
Table C.2 – Bias Adjustment Factor	38
Table C.3 – Local Bias Adjustment Calculation	38
Table C.5 – Automatic NO ₂ Annualisation Summary (concentrations presented in µg/m ³)	43
Table C.6 – Automatic PM ₁₀ Annualisation Summary (concentrations presented in µg/m ³	43
Table E.1 – Air Quality Objectives in England	49

1 Local Air Quality Management

This report provides an overview of air quality in St Helens Council during 2024. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by St Helens Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

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

- NO₂ annual mean.

St Helens Council is in the process of securing four brand new NO₂ monitors for each of the four AQMAs. Once these are in place, we propose to revoke AQMA 1 (M6), AQMA 2 (High Street) and AQMA 4 (Linkway) (see monitoring section).

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 1 M6 (Motorway)	30th April 2009	NO ₂ Annual Mean	An area encompassing the M6 running its entire length through the Borough	YES	65	28.5	5	AQAP (2024)	https://sthelens.gov.uk/media/3169/Air-Quality-Action-Plan-2024/pdf/St_Helens_Council_Air_Quality_Action_Plan_2024.pdf?m=1733761523397
AQMA 2 Newton le Willows High Street	30th April 2009	NO ₂ Annual Mean	Residential properties along High Street Newton le Willows (A49) between the junctions of Ashton Road and Church Street	NO	40.1	23.3	10+	AQAP (2024)	https://sthelens.gov.uk/media/3169/Air-Quality-Action-Plan-2024/pdf/St_Helens_Council_Air_Quality_Action_Plan_2024.pdf?m=1733761523397
AQMA 3 Borough Road	30th November 2011	NO ₂ Annual Mean	An area encompassing residential properties along Borough Road between the junctions of Westfield Street and Prescott Road, including 5-9	NO	64	46.1	0	AQAP (2024)	https://sthelens.gov.uk/media/3169/Air-Quality-Action-Plan-2024/pdf/St_Helens_Council_Air_Quality_Action_Plan_2024.pdf?m=1733761523397

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
			Alexandra Drive and 1-17 Prescot Road						
AQMA 4 Linkway	30th November 2011	NO ₂ Annual Mean	Residential development adjacent to the Linkway (A570)	NO	42.11	21.8	10 *	AQAP (2024)	https://sthelens.gov.uk/media/3169/Air-Quality-Action-Plan-2024/pdf/St_Helens_Council_Air_Quality_Action_Plan_2024.pdf?m=1733761523397

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

☒ St Helens Council confirm that all current AQAPs have been submitted to Defra.

2.2 Progress and Impact of Measures to address Air Quality in St Helens Council

Defra's appraisal of last year's ASR concluded that St Helens should consider revoking all the AQMAs which haven't exceeded over the past 3 years. St Helens Council is in the process of securing four new air quality monitors for each of the AQMAs. Once these new monitors are in place, St Helens will explore revoking AQMA 1, AQMA 2 & AQMA 4.

St Helens Council has taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. 26 measures are included within Table 2.2, with the type of measure and the progress St Helens Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in their respective Action Plans. Key completed measures are:

- **By Ours Cowley Hill Liveable Neighbourhood** – this project involved designing a safer, more vibrant neighbourhood to encourage people to take more journeys on foot, bike, or other active transport modes, reducing carbon footprint.
- **Transport and Travel Supplementary Planning Document (SPD)** – A new Transport and Travel SPD has been adopted and echoes national guidance, policy and local commitments to climate change by refocusing on active and inclusive travel (walking, wheeling and cycling), public transport and zero emission vehicles. This project was adapted in Spring 2024.

St Helens Council expects the following measures to be completed over the course of the next reporting year:

- **Lea Green to Whiston Hospital (ATR3)** - a phased delivery of construction along the Lea Green Station to Whiston Hospital Active Travel Route (ATR3), pursuant to the provision of a continuous well-connected sustainable network back to the St Helens Southern Gateway Cyclops scheme.
- **St Helens Southern Gateway** - The project includes 6 cycle routes and a 'CYCLOPS' junction, being the first in the Liverpool City Region. Wider elements of

this project include significant upgrades to facilities at Lea Green Rail Station, including better provision for sustainable modes, electric vehicle charging infrastructure, and an improved Park & Ride facility.

- **Parkside Link Road** - This new link road (supported by a dedicated freight signage strategy) will result in the redistribution of traffic away from the local traffic network and onto the new strategic route, securing a more efficient and effect flow of vehicles, particularly Heavy Goods Vehicles (HGVs).
- **Vehicle Replacement/ Retrofit Project** - This project was awarded £0.650m by the Department of Environment, Farming and Rural Affairs (DEFRA) Air Quality Grant to support taking some of the worst polluting vehicles off the road and replacing them with newer, more efficient vehicles while also supporting local businesses, thereby quickly delivering quantifiable reductions in NO₂ emissions.
- **Indoor Air Quality Project** - St Helens Council and Warrington Borough Council aim to make air quality improvements across their local areas by delivering a range of activities that focus on indoor air quality through monitoring air pollutants in households with underlying respiratory illness (i.e., asthma) and offering targeted education/awareness to help meet our Councils' statutory duties under the Environment Act 1995.
- **Electric Vehicle Charging Infrastructure Strategy** - A St Helens Electric Vehicle Charging Infrastructure (EVCI) Strategy and Delivery Plan has been adopted by the Council. St Helens assisted the Liverpool City Region Combined Authority with the City Region submission of their initial Local Electric Vehicle Infrastructure (LEVI) funding application in securing £9.6 million.

St Helens Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Liverpool City Region & Cheshire Air Quality Technical Group (AQTECH).
- Merseytravel
- Defra
- National Highways
- Wigan Council
- TFGM,
- Warrington Borough Council.

- Network Rail; and
- Liverpool City Region Combined Authority (LCRCA)

The principal challenges and barriers to implementation that St Helens Council anticipates facing are funding and resource challenges.

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

- **The vehicle replacement project** due to St Helens Chamber of Commerce going into administration.

St Helens Council anticipates that the measures stated above and in Table 2.2 will achieve compliance in

- High Street, Newton
- M6/Southworth Road
- St Helens Linkway

Whilst the measures stated above and in Table 2.2 will help to contribute towards compliance, St Helens Council anticipates that further additional measures not yet prescribed will be required in subsequent years to achieve compliance and enable the revocation of Borough Road.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1.	Carr Mill Rail Station Redevelopment	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2030+ (Subject to securing funding & planning permissions)	2030+ (Subject to securing funding & planning permissions)	SHBC, LCRCA, Merseytravel, Network Rail, third-party landowners.	Not secured: Developer Contributions, LCRA, DfT Highway Infrastructure Funding, DfT Control Period	No	Funding for SHBC activity only	>£10 million	In Progress	Reduced vehicle emissions	Reduction in traffic volumes	At design phase. Strategic Outlined Business Case (SOBC)
2.	By Ours Cowley Hill Liveable Neighbourhood	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services & Cycle network	2024	2024	SHBC, LCRCA, Sustrans	DfT, LCRCA, Active Travel Tranche 3 Funding, Sustrans, UKSPF	No	Partially funded (phased delivery)	£1 million - £10 million	Completed	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Concept design stage and public consultation complete in July 2023.
3.	St Helens Multi Modal Interchange SHMMI/ Connected Places	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services & Cycle network	2026-27	2026-27	SHBC, Merseytravel, LCRCA, DfT, English Cities Fund, Town Deal Board	Town Deal Fund, SHBC Capital, City Region Sustainable Transport Settlement (CRSTS)	No	Partially funded (phased delivery)	>£10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	RIBA Stage 3 design complete. Contractor appointed.
4.	Green Bus Routes (Hydrogen buses)	Transport Planning and Infrastructure	Bus route improvements	2027	2027	LCRCA, Merseytravel, SHBC, Neighbouring Authorities, Bus Operators	City Region Sustainable Transport Settlement (CRSTS)	No	Funded	>£10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Design Stage
5.	St Helens Central to St Helens Junction disused railway line	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2030+	2030+	Network Rail, Northern Rail, Merseytravel, LCRCA, SHBC	Not secured: Developer Contribution, DfT Control Period, LCRCA	No	Funding for Feasibility Study Only	>£10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Feasibility study currently being undertaken.
6.	Omega West Transport Strategy	Transport Planning and Infrastructure	Bus route improvements, cycle network	2024	2024	SHBC, Miller Developments, Merseytravel, LCRCA, Warrington Borough Council	Section 106 Funding Agreement	No	Funding for bus service only	£1 million - £10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Development stages for potential bus routes. Options appraisal for cycle network links.
7.	A580 East Lancashire Road (ATR1)	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2030+	2030+	SHBC, LCRCA, Merseytravel, National Highways	DfT, LCRCA Active Travel Funding, Developer Contributions	No	Funding for detailed design only	£1 million - £10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Concept design complete, consultation underway.

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
8.	Jubits Lane to Widnes (ATR2)	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2027+	2027+	SHBC, LCRCA, Merseytravel, Forestry England, Halton Borough Council	DfT, LCRCA Active Travel Funding, Developer Contributions	No	Funding for detailed design only	£1 million - £10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Detailed design complete, tending for construction partner.
9.	Lea Green to Whiston Hospital (ATR3)	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2024	2024	SHBC, LCRCA, Merseytravel, Knowsley Borough Council	DfT, LCRCA Active Travel Tranche 4 Funding, Neighbouring Authority local contribution, Developer Contributions	No	Partially Funded (phased delivery)	£1 million - £10 million	In Progress	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	Detailed design with general arrangement drawings to be complete
10.	St Helens Southern Gateway	Traffic Management	Strategic highway improvements	2023-24	2023-24	SHBC, LCRCA, Merseytravel, Northern Rail, Network Rail	Liverpool City Region's Transforming Cities Fund	No	Funded	>£10 million	Completed	Reduced vehicle emissions (modal shift)	Reduction in traffic volumes (modal shift)	CYCLOPS completed in 2023, with remaining connecting cycle routes and Lea Green Railway Improvements due to be complete in 2024.
11.	Digital infrastructure programme	Promoting Travel Alternatives	Encourage / Facilitate home-working	2025-26	2025-26	SHBC, LCRCA, Town Deal Board	Town Deal Funding	No	Funded	£1 million - £10 million	In Progress	To be confirmed	Indirect benefit	Concept design stage, progressing to early contractor involvement.
12.	Glass Futures	Environmental Permits	Measures to reduce pollution through IPPC Permits going beyond BAT	2023	2023	Glass Futures, SHBC	Glass Futures	No	n/a	n/a	Ongoing	To be confirmed	Indirect benefit	Site open and due to operate in 2024.
13.	Parkside Link Road	Transport Planning and Infrastructure	Other	2024	2024	SHBC, Langtree, Balfour Beatty, LCRCA, National Highways, Warrington Borough Council	LCRCA, Freeport, Strategic Investment Fund, SHBC	No	Funded	>£10 million	In Progress	Reduced vehicle emissions on local road network	Reduction in traffic volumes on local road network	Under construction and scheduled for completion in 2024
14.	Parkside Strategic Rail Freight Interchange	Freight and Delivery Management	Other	2027+	2027+	SHBC, LCRCA, National Highways, Liverpool City Region Freeport, Network Rail, Site Developers, SRFI Operator	LCRCA Freeport, Strategic Investment Fund, SHBC, Developer contributions.	No	TBC	>£10 million	In Progress	Reduced vehicle emissions	Reduction in traffic volumes	At design stage
15.	Vehicle Replacement/ Retrofit Project	Vehicle Fleet Efficiency	Vehicle Retrofitting programmes	2024	2024	SHBC, St Helens Chamber, Defra	Defra	Yes	Partially Funded	£500k - £1m	In Progress	TBC	Number of vehicles replaced, and the efficiency increase between the old and new vehicles.	In progress
16.	Indoor Air Quality Project	Public Information	Other	2025	2025	SHBC, Warrington BC	Defra	Yes	Partially Funded	£100k - £500k	In Progress	TBC	Pollutant improvements in individual homes.	In progress

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
17.	EV Strategy	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2023-24	2023-24	SHBC, LCRCA, DfT, External EVCI market	DfT Local Electric Vehicle Infrastructure (LEVI), Developer Contributions	No	Partially Funded via LEVI	£1 million - £10 million	In Progress	Reduced vehicle emissions	Number of vehicles changing from fossil fuels to electric charging only.	Public consultation completed in Autumn 2023, final report due back to Cabinet in Winter 2023.
18.	Local Cycling and Walking Infrastructure Plan (LCWIP)	Promoting Travel Alternatives	Promotion of cycling & promotion of walking	2023	2023	SHBC, LCRCA, Sustrans	DfT, LCRCA Active Travel Funding, Capability and Ambition Fund, Developer Contributions	No	Partially funded for scheme development	>£10 million	In Progress	Modal shift to active travel modes	Modal shift to active travel modes	SHBC LCWIP adopted at Cabinet in April 2023.
19.	Transport and Travel SPD	Policy Guidance and Development Control	Other	2023-24	2023-24	SHBC	SHBC, Capability and Ambition Fund, Developer contributions	No	Funded	£10k - £50k	Completed	Modal shift to sustainable travel modes	Modal shift to sustainable travel modes (walking, cycling, public transport)	Preparing for public consultation in Winter 2023.
20.	Emerging LTP4	Policy Guidance and Development Control	Other	2024	2024	LCRCA, SHBC, Merseytravel, DfT	LCRCA, DfT, Government devolved grant allocations	No	N/A	>£10 million	In Progress	Modal shift to sustainable travel modes	Modal shift to sustainable travel modes (walking, cycling, public transport)	Draft LTP4 in progress
21.	Climate Action Plan	Policy Guidance and Development Control	Other	2022	2022	Various (see plan)	Various (see plan)	No	N/A	N/A	Ongoing	Net Zero Carbon by 2040	CO ₂ emissions	Ongoing
22.	Raise Awareness of AQ	Public Information	Via all means possible	Ongoing	Ongoing	SHBC	N/A	No	N/A	N/A	Ongoing	N/A	N/A	Ongoing
23.	Procuring Low Emission Vehicles for Council-Owned Fleets	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	Ongoing	Ongoing	SHBC, TPPL	SHBC, Government Grants	No	Funded	£1 million - £10 million	Ongoing	Net Zero Carbon by 2040	CO ₂ emissions Reduction	Ongoing procurement of electric and hydrogen vehicle fleet
24.	Flexible working and home working encouraged	Promoting Travel Alternatives	Encourage / Facilitate home-working	Ongoing	Ongoing	SHBC	SHBC	No	Funded	TBC	Ongoing	Number of people working from home	CO ₂ emissions Reduction	Modern workforce programme fully implemented 2020
25.	Parking Strategy	Promoting Low Emission Transport	Other	Ongoing	Ongoing	SHBC	SHBC	No	Unfunded	TBC	Ongoing	TBC.	NO ₂ emission reduction in AQMAs	In progress
26.	Bikeability Programme	Promoting Travel Alternatives	Promotion of cycling	Ongoing	Ongoing	SHBC, LCRCA, Bikeright	DfT	No	Funded Annually	£500k - £1m	Ongoing	Increase in cycle usage	Number of cycle trips	Ongoing

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 Strategy², 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.

St Helens Council is taking the following measures to address PM_{2.5}:

The updated air quality action plan has implemented as many measures as possible to tackle PM_{2.5} emissions.

- Raise awareness of the correct disposal routes for waste, not to burn waste, also to compost green waste and we provide a green waste collection service.
- Each year St Helens undertakes operation Good Guy to remove combustible materials, waste and bonfire materials from all public space, open ground, and gardens to limit the number of bonfires. St Helens advertise this, and residents are able to report build ups of waste to the council for removal.
- We respond to complaints about commercial premises using burning as a method of waste disposal and respond to nuisance complaints about neighbours consistently burning waste under the Environmental Protection Act 1990.
- St Helens Council actively promotes eco-driving which include the reduced braking and tyre wear which is a cause of PM_{2.5}.
- All permitted premises and planning applications are encouraged to utilise gas fired boilers instead to diesel powered boilers to reduce the PM_{2.5} and PM₁₀ emissions.
- As a statutory consultee on planning applications, we ask for dust management plans to limit the amount of dust on site, and to stop burning of any waste arising.
- Information is available on the council website and is included in the educational website aimed at children and schools.

² Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

- In 2022, St Helens, along with the Merseyside combined authority will be involved in the consultations of Environment Act Targets (in line with UK100 response). The responses will focus on the changes to the PM_{2.5} updated guidelines.
- In 2022, St Helens and Warrington Borough Council submitted in an application for the Defra Grant bid. The project aims to help increase awareness of indoor air quality, including raising awareness of PM_{2.5} pollutants from log burning. Early in 2023, St Helens and Warrington Borough Councils were notified as to the success of the bid. We got the conformation of the funding in March 2023 and the project is now underway.

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

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

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

St Helens Council undertook automatic (continuous) monitoring at four sites during 2024. Table A.1 in Appendix A shows the details of the automatic monitoring sites. NB. Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem. The <https://www.ukairquality.net/> page presents automatic monitoring results for St Helens, with automatic monitoring results also available through the UK-Air website.

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

3.1.2 Non-Automatic Monitoring Sites

St Helens Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 32 sites during 2024. Table A.2 in Appendix A presents the details of the non-automatic sites.

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

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (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 2024 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Table A.5 in Appendix A compares the ratified continuous monitored 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.

All monitoring results were below the annual mean for nitrogen dioxide at all the automatic monitoring sites and at all the diffusion tube locations with the exception of DT 19 and 24 which are located at 55 Borough Road. No exceedances were found to be above the 60µg/m³ indicating that there are no exceedances of the 1- hour mean objective.

All AQMAs had no exceedances of the annual mean objective with the exception of diffusion tubes 19 and 24 which are located at 55 Borough Road within the Borough Road AQMA. There are no exceedances of the daily or annual mean objective in any of the other monitored locations.

It should be noted for the diffusion tube monitoring, annualisation was carried out on multiple diffusion tubes (please see table C.1).

There are three sets of co-located duplicate diffusion tubes at the Linkway monitor, the Southworth Road monitor, and the High Street monitor. A local bias adjustment factor of 0.76 was derived using the Borough Road monitor. There was insufficient data at the Linkway and Southworth Road monitor to utilise their data in the bias adjustment factor

calculations. As this was lower than the national factor of 0.78, the national factor was used to represent a worst-case scenario. As the High Street Diffusion Tubes are attached to a nearby lamppost as opposed to the monitor itself, they were excluded from the annualisation final calculations.

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 35 times per year.

The PM₁₀ data was annualised due to their being 67.5% data capture. The monitored annualised annual mean concentration for 2024 at the Linkway analyser (LW) was 15.5 µg/m³. There was one exceedance of the PM₁₀ daily mean. These results demonstrate a downward trend.

3.2.3 Particulate Matter (PM_{2.5})

Table A.8 in Appendix A presents the ratified and adjusted monitored PM_{2.5} annual mean concentrations for the past five years.

The 2024 national bias factor was applied to the annualised 2024 PM₁₀ results to give an estimate of the PM_{2.5} annual mean concentrations as per box 7-7 of the LAQM.TG (22) guidance. As with the PM₁₀ results, the results demonstrate a downward trend.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? ⁽¹⁾	Monitoring Technique	Distance to Relevant Exposure (m) ⁽²⁾	Distance to kerb of nearest road (m) ⁽¹⁾	Inlet Height (m)
LW	St Helens Linkway	Roadside	350815	395260	NO ₂ , PM ₁₀	YES	AQMA 4	Chemiluminescent; BAM	165	5.35	2.44
SR	St Helens Southworth Road	Roadside	360045	395643	NO ₂	YES	AQMA 1	Chemiluminescent	10	3.2	2
HS	St Helens High Street	Roadside	358975	395804	NO ₂	YES	AQMA 2	Chemiluminescent	1.06	3.65	2
BR	St Helens Borough Road	Roadside	350403	394961	NO ₂	YES	AQMA 3	Chemiluminescent	23	2.5	1.48

Notes:

(1) N/A if not applicable

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

Table A.2 – Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
1	170 Southworth Road	Roadside	360109	395661	NO2	No	0.0	16.3	No	2.0
2	1 Skitters Grove	Roadside	356549	399577	NO2	No	0.0	22.8	No	2.0
3	Taylor park	Urban Background	349485	394766	NO2	No	32.2	N/A	No	2.4
4	27 Syston Avenue	Suburban	352451	396735	NO2	No	0.0	12.9	No	1.7
5	151 west End Road	Suburban	353891	396714	NO2	No	0.0	4.5	No	1.9
6	Parkside Lampost	Suburban	359498	394646	NO2	No	45.4	1.7	No	2.4
7, 10, 31	160 Southworth Road	Roadside	350403	394961	NO2	No	10.0	3.2	Yes	2.0
8	157 high Street	Roadside	358774	395880	NO2	Yes, Newton High Street AQMA (No.2)	0.0	10.6	No	1.9
9	3 Waterworks cottages	Roadside	359915	395639	NO2	No	0.0	11.5	No	1.8
11	Southworth Road LP 11	Roadside	360065	395653	NO2	No	0.0	4.6	No	1.9
13	22 Union Bank lane	Roadside	352391	390301	NO2	No	0.0	7.6	No	1.8
14, 23	19 High Street	Roadside	359147	395705	NO2	Yes, Newton High Street AQMA (No.2)	0.0	5.9	No	2.4
15	2 Parkside Cottages	Roadside	358220	397077	NO2	No	0.0	27.4	No	1.7

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)
16	297 Liverpool Road	Roadside	354377	397475	NO2	No	0.0	14.3	No	2.1
17	446 Liverpool Road	Roadside	354403	397561	NO2	No	0.0	7.9	No	1.8
18, 22	Linkway Monitor	Roadside	350815	395265	NO2	Yes, AQMA No. 4 (Reflection Court)	165.0	5.4	Yes	2.4
19, 24	55 Borough Road	Roadside	350438	395005	NO2	Yes, AQMA No.3 (Borough Rd)	0.0	2.6	No	2.3
20	33 Langholm Road	Suburban	355322	399625	NO2	No	0.0	2.6	No	2.3
21	24 Greenfield Road	Roadside	350135	396128	NO2	No	0.0	6.2	No	1.8
25, 32	High Street Monitor	Roadside	358975	395804	NO2	Yes, Newton High Street AQMA (No.2)	1.1	3.7	Yes	2.6
26	33 Blackbrook Road	Roadside	353129	396240	NO2	No	0.0	6.4	No	1.9
27	51 Carr Mill Road	Roadside	352336	397653	NO2	No	0.0	13.6	No	1.1
28	206 Borough Road	Roadside	350156	394848	NO2	Yes, AQMA No.3 (Borough Rd)	0.0	6.4	No	1.9
29	25 Prescott Road	Roadside	350456	395135	NO2	No	0.0	1.9	No	2.4
30	4 Union Bank Lane	Roadside	352262	390226	NO2	No	0.0	7.5	No	1.9

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
33	Warrington Road, Rainhill Stoops	Roadside	350386	389936	NO2	No	5.1	11.9	No	1.9

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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
Linkway	350815	395260	Roadside	100.0	75.5	25	26	28	23	21.8
Borough Road	350403	394961	Roadside	99.7	89.7	26	24	25	25.8	22.5
High Street	358975	395804	Roadside	97.3	97.2	30	30	27	25.1	23.3
Southworth Road	360045	395643	Roadside	86.0	71.7	34	34	37	31	28.5

☒ 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 carried out for part of the year.

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

Table A.4 – Annual Mean 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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
1	360109	395661	Roadside	100.0	75.0	23.2	24.1	16.8	19.5	14.9
2	356549	399577	Roadside	100.0	41.0	19.2	23.4	14.2	16.6	11.0
3	349485	394766	Urban Background	100.0	63.9	11.2	14.0	10.0	15.1	10.2
4	352451	396735	Suburban	100.0	75.0	18.8	23.3	16.2	13.4	11.5
5	353891	396714	Suburban	100.0	66.0	20.2	21.8	18.6	19.3	14.7
6	359498	394646	Suburban	100.0	56.1	17.3	20.9	17.2	20.0	16.9
7, 10, 31	350403	394961	Roadside	100.0	75.0	31.5	36.5	26.4	26.8	23.0
8	358774	395880	Roadside	100.0	58.5	19.8	23.4	17.3	19.1	16.4
9	359915	395639	Roadside	100.0	75.0	16.7	21.2	16.7	18.0	12.8
11	360065	395653	Roadside	100.0	48.5	31.7	35.1	28.5	26.6	28.4
13	352391	390301	Roadside	100.0	58.0	19.0	22.5	15.2	18.1	15.4
14, 23	359147	395705	Roadside	100.0	66.0	28.0	34.4	20.5	27.7	23.9
15	358220	397077	Roadside	100.0	31.5	25.9	26.6	23.2	25.7	18.5
16	354377	397475	Roadside	100.0	75.0	18.2	22.0	16.5	16.7	14.1
17	354403	397561	Roadside	100.0	75.0	23.1	26.4	21.3	21.9	16.5
18, 22	350815	395265	Roadside	100.0	75.0	25.4	30.8	24.9	25.8	21.0
19, 24	350438	395005	Roadside	100.0	73.6	42.7	49.7	33.5	46.1	46.1
20	355322	399625	Suburban	100.0	46.6	13.5	14.1	11.5	11.3	8.6
21	350135	396128	Roadside	100.0	66.0	21.1	25.7	20.9	20.4	17.0
25, 32	358975	395804	Roadside	100.0	75.0	24.7	31.2	23.0	26.9	21.5
26	353129	396240	Roadside	100.0	75.0	24.2	28.5	21.8	23.7	18.5
27	352336	397653	Roadside	100.0	75.0	18.7	24.3	18.9	24.5	15.5
28	350156	394848	Roadside	100.0	66.3	22.1	27.3	19.9	22.7	19.4
29	350456	395135	Roadside	100.0	75.0	21.4	25.9	19.3	23.1	18.6
30	352262	390226	Roadside	100.0	75.0	17.4	20.4	14.7	16.1	13.1
33	350386	389936	Roadside	100.0	75.0	27.1	30.4	22.8	27.3	22.8

☒ 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**.

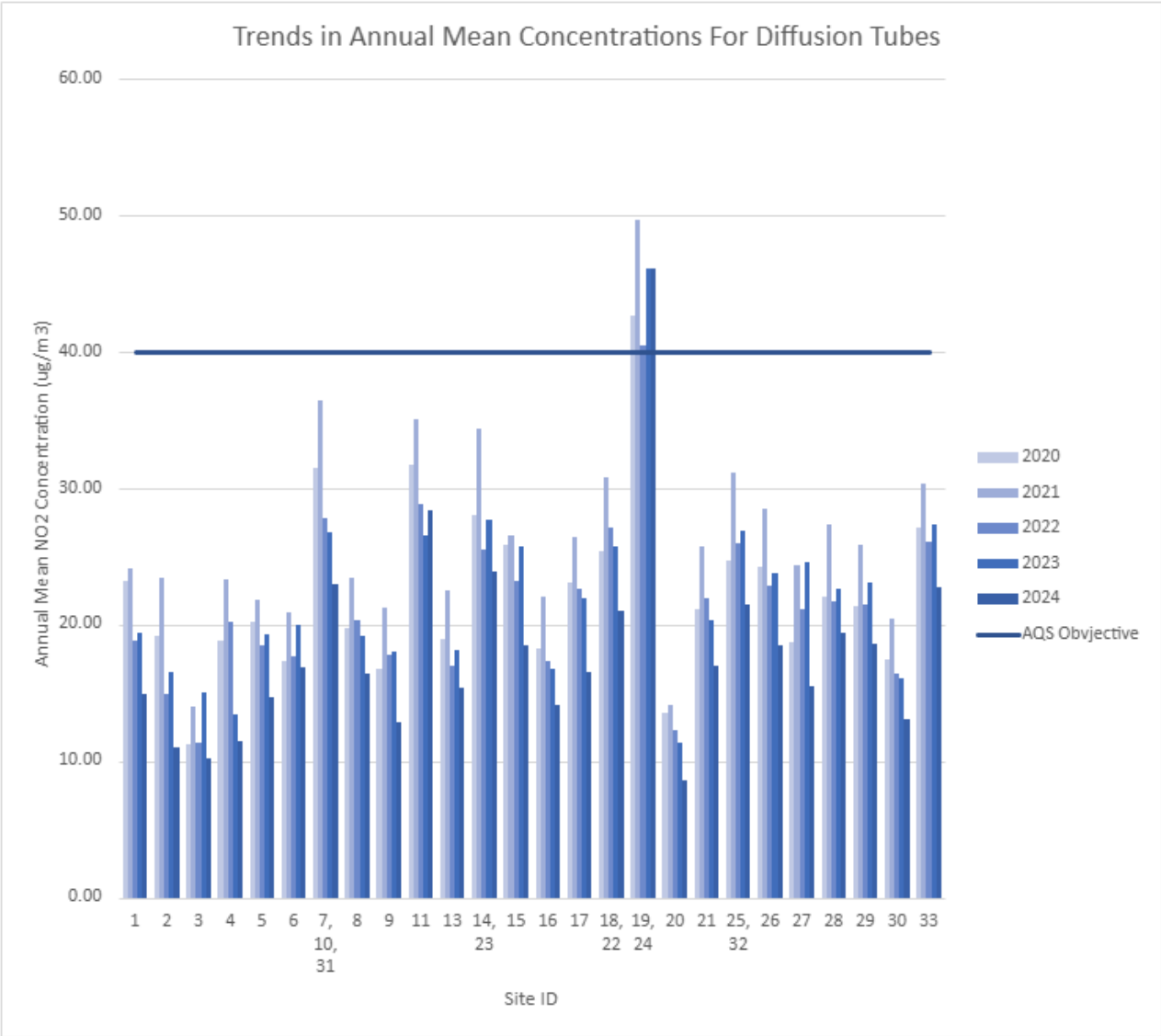
Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

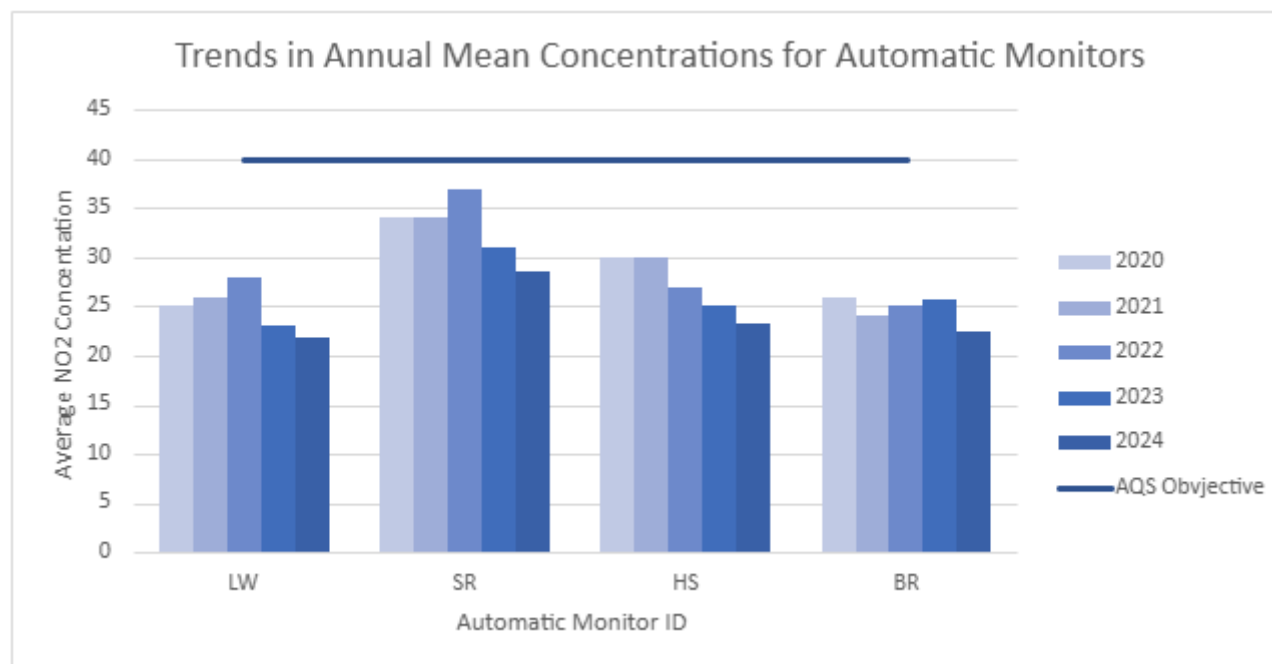
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

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

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

Figure A.1 – Trends in Annual Mean NO₂ Concentrations





For the NO₂ annual mean concentrations for diffusion tubes there has been a general increase in NO₂ levels since 2020, demonstrating levels are starting to return to normal since the impacts of COVID-19 restrictions and lockdowns. There are no exceedances of the annual mean objective in 2024 except for DT 19 and 24 where an exceedance of 46.1 µg/m³ was recorded.

For the NO₂ annual mean concentrations for the four automatic monitors, there have been no exceedances over the past five years. All monitors average NO₂ annual mean concentrations have decreased since 2022 apart from Borough Road in which there is no clear pattern in the data.

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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
Linkway	350815	395260	Roadside	100.0	75.5	0	0	0	0	0 (90)
Borough Road	350403	394961	Roadside	99.7	89.7	0	0	0	0	0
High Street	358975	395804	Roadside	97.3	97.2	0	0	0	0	0
Southworth Road	360045	395643	Roadside	86.0	71.7	0	0	0	0	0 (93)

Notes:

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

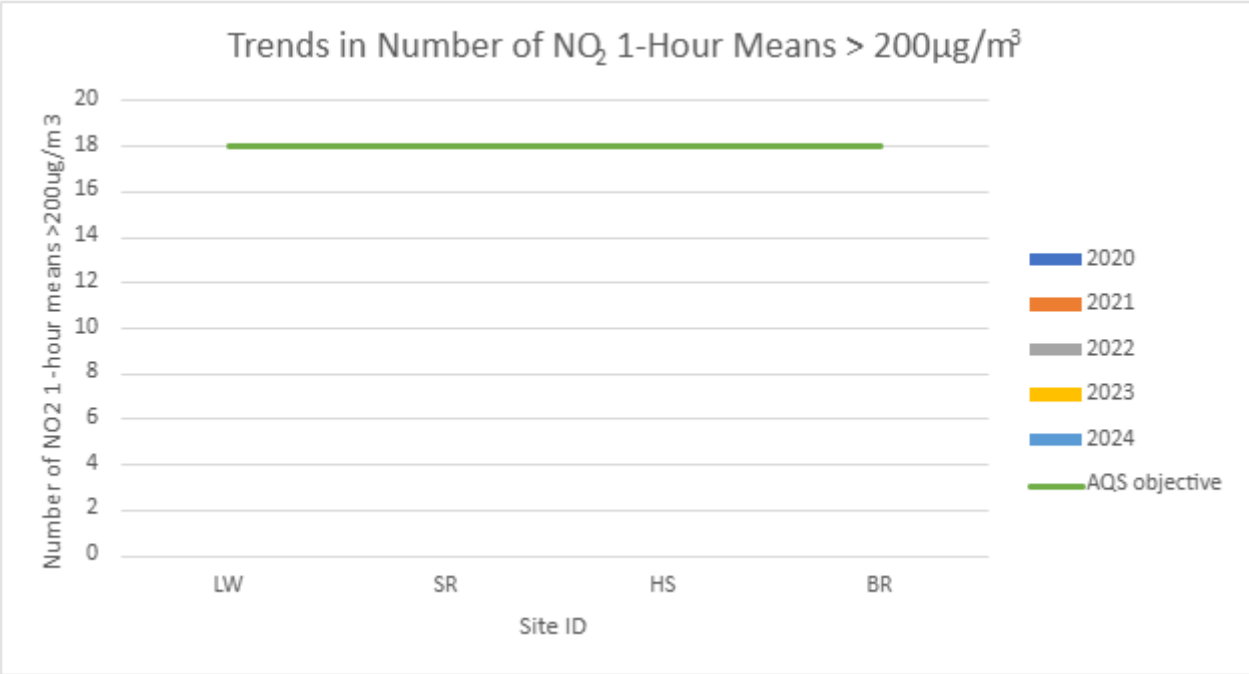
Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

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 carried out for part of the year.

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

Figure A.2 – Trends in Number of NO₂ 1-Hour Means > 200µg/m³



There have been no exceedances greater than 200 µg/m³ in the past five years for any of the four automatic stations. This is below the annual objective of 18 times per year.

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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
LW	350815	395260	Roadside	100.0	67.5	18	18	19	18	15.5

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

Notes:

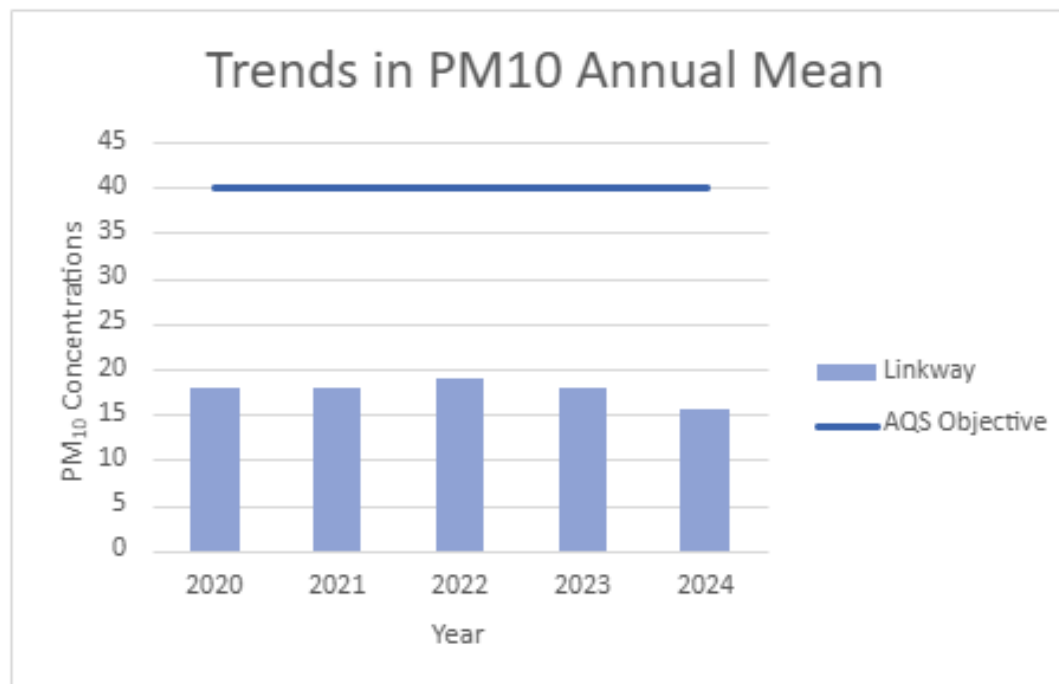
The annual mean concentrations are presented as $\mu\text{g}/\text{m}^3$.

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

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

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

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

Figure A.3 – Trends in Annual Mean PM₁₀ Concentrations

For the past five years, the annual mean concentration of PM₁₀ has been at less than half the concentration of the 40 µg/m³ objective at the Linkway automatic monitor. The 2024 value is the lowest it has been in the last five years.

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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
LW	350815	395260	Roadside	100.0	67.5	1	1	8	4	1

Notes:

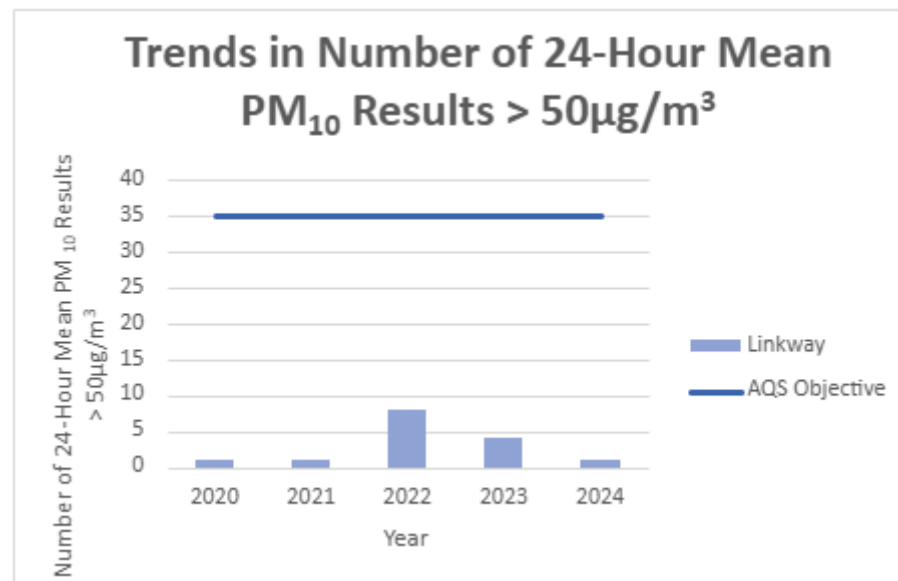
Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

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

For the past five years, the annual mean concentration of PM₁₀ has been at less than half the concentration of the 40 µg/m³ objective at the Linkway automatic monitor. The 2024 value was lower than the values in 2022 and 2024 but and the same as the 2020 and 2021 value.

Table A.8 – Annual Mean PM_{2.5} 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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
LW	350815	395260	Roadside	100.0	67.5		12.3	12.6	12.1	9.5

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

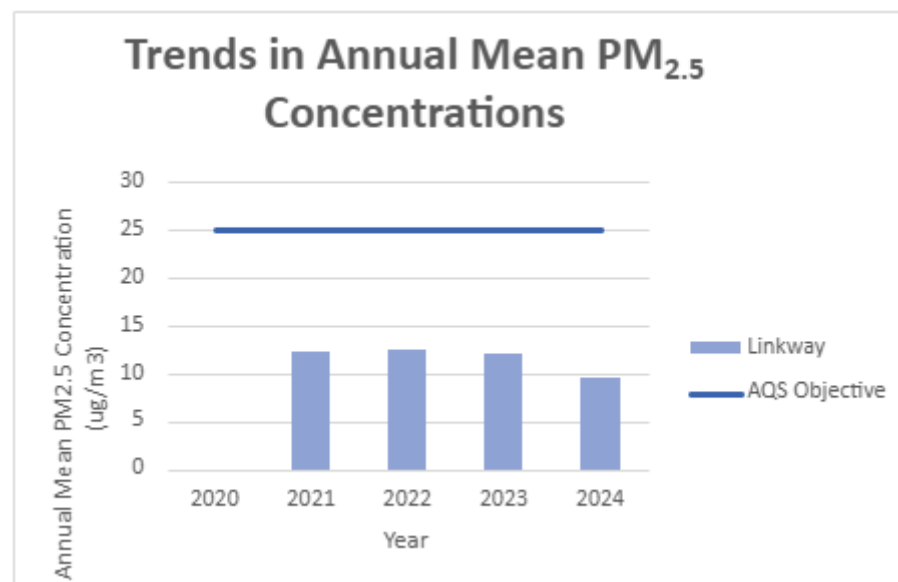
Notes:

The annual mean concentrations are presented as µg/m³.

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

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

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

Figure A.5 – Trends in Annual Mean PM_{2.5} Concentrations

PM₁₀ annual data has been used to estimate a PM_{2.5} annual mean by using the national factors provided by Defra. There were no exceedances in 2024, and the estimated annual mean is showing a slow decrease every year from 2022. No data is available prior to 2021.

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO₂ 2024 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 (0.78)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
1	360109	395661	28.7			19.8	16.4	18.6	15.8	15.2	16.2	14.2	27.2		19.1	14.9		
2	356549	399577				12.4	15.0	8.5	10.7			16.7			12.7	11.0		
3	349485	394766	13.7			8.0		5.7	9.1	10.0	15.6	17.4	21.7		12.7	10.2		
4	352451	396735	23.9			11.8	14.1	9.3	10.7	7.4	11.4	17.7	25.9		14.7	11.5		
5	353891	396714				11.5	18.9	12.1	13.9	15.3	17.6	24.9	27.6		17.7	14.7		
6	359498	394646	26.9			19.7	19.6	12.5	16.6	15.3			30.1		20.1	16.9		
7	350403	394961	44.5			31.7	25.8	26.8	27.8	22.9	19.0	29.9	40.0		-	-		Triplicate Site with 7, 10 and 31 - Annual data provided for 31 only
10	350403	394961	42.8			27.0	27.7	24.6	23.2	26.6	25.8	23.1	41.3		-	-		Triplicate Site with 7, 10 and 31 - Annual data provided for 31 only
31	350403	394961	43.0			32.4	26.2	25.0	23.1	23.2	23.8	31.4	36.5		29.4	23.0		Triplicate Site with 7, 10 and 31 - Annual data provided for 31 only
8	358774	395880				20.1	19.8	15.6	20.1	13.2	19.8	21.7			18.6	16.4		
9	359915	395639	24.0			14.9	16.9	8.8	12.3	10.7	15.5	18.7	26.1		16.4	12.8		
11	360065	395653	43.0			28.2	28.2	28.4	30.6	27.8					31.0	28.4		
13	352391	390301	26.1			13.6	17.9	17.7	20.3	12.5		17.0			17.9	15.4		
14	359147	395705	32.7			26.0	25.5	26.1	26.9	24.9	26.5	34.6			-	-		Duplicate Site with 14 and 23 - Annual data provided for 23 only
23	359147	395705	36.4			27.5	28.9	28.3	25.2	23.7	25.5	30.8			28.1	23.9		Duplicate Site with 14 and 23 - Annual data provided for 23 only
15	358220	397077				23.3	23.3	12.5	19.4						19.6	18.5		
16	354377	397475	25.6			16.0	21.3	17.5	13.5	14.3	18.7	17.3	18.0		18.0	14.1		
17	354403	397561	24.8			23.1	21.8	14.3	15.6	14.3	19.2	26.2	30.7		21.1	16.5		
18	350815	395265	35.1			22.9	26.5	21.3	26.3	22.6	23.4	31.3	28.4		-	-		Duplicate Site with 18 and 22 - Annual data provided for 22 only
22	350815	395265	35.5			27.8	21.4	26.5	24.8	22.7	24.4	28.4	34.8		26.9	21.0		Duplicate Site with 18 and 22 - Annual data provided for 22 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.78)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
19	350438	395005	67.2			53.8	53.5	44.3	57.6	47.2	59.2	63.9	57.6		-	-		Duplicate Site with 19 and 24 - Annual data provided for 24 only
24	350438	395005				53.8	58.2	45.0	56.4	50.0	60.4	58.2	73.9		57.1	46.1		Duplicate Site with 19 and 24 - Annual data provided for 24 only
20	355322	399625	15.8			7.2	9.6	7.1	8.4				16.4		10.8	8.6		
21	350135	396128				19.9	19.0	14.0	14.9	13.6	22.2	27.3	32.8		20.5	17.0		
25	358975	395804	31.5			25.3	29.5	21.1	22.2	21.6	32.2	30.0	37.0		-	-		Duplicate Site with 25 and 32 - Annual data provided for 32 only
32	358975	395804	33.8			27.0	27.4	21.4	23.2	21.6	32.7	25.3	33.6		27.6	21.5		Duplicate Site with 25 and 32 - Annual data provided for 32 only
26	353129	396240	30.9			20.3	25.5	17.9	19.2	15.0	26.9	28.7	28.6		23.7	18.5		
27	352336	397653	28.5			18.1	26.1	13.7	15.0	13.7	16.7	25.4	21.6		19.9	15.5		
28	350156	394848	32.3				24.6	22.0	22.9	15.1	26.6	24.1	26.0		24.2	19.4		
29	350456	395135	33.3			22.6	21.1	11.6	20.3	17.9	28.5	27.8	32.0		23.9	18.6		
30	352262	390226	20.8			13.6	16.7	17.9	17.0	11.9	18.5	12.0	22.7		16.8	13.1		
33	350386	389936	36.9			29.1	32.6	21.8	22.0	25.5	27.4	32.6	35.5		29.3	22.8		

☒ 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.

☒ St Helens Council 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 and annualisation.

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

New or Changed Sources Identified Within St Helens Council During 2024

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

Additional Air Quality Works Undertaken by St Helens Council During 2024

The new Air Quality Action Plan was issued to Defra July 2024 and approved. After the AQAP was published, St Helens started work on gaining funding to secure four new replacement air quality NO₂ monitors.

QA/QC of Diffusion Tube Monitoring

Diffusion Tube Performance Summary 2024:

Tube Type:	50% TEA : 50% Acetone/ 20% TEA : 80% Water
Uncertainty:	“Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance” categorises diffusion tubes as an indicative method, and as such the uncertainty is defined as $\pm 25\%$. During in field intercomparisons, SOCOTEC’s diffusion tubes perform at $\pm 10\%$ uncertainty.
Quality Control:	A quality control (QC) sample of known concentration is run with the samples. The data generated is then assessed using a Shewhart control chart to determine the process is under statistical control.
Analytical Repeatability:	In 2024 ~9700 QC samples were analysed, achieving a relative standard deviation of 1.09%

Confidence Intervals: $2\sigma \pm 2.59\%$

$3\sigma \pm 3.89\%$

Limit of Detection: The analytical limit of detection is $0.03\mu\text{g NO}_2$.

Over a 4-week exposure this would equate to $0.6\mu\text{g/m}^3$, or 0.3ppb

Quality Assurance:

The manufacture and analysis of NO_2 diffusion tubes is covered by our UKAS accreditation.

The laboratory has taken part in the AIR (previously WASP) proficiency scheme since its inception. To achieve the highest ranking of “Satisfactory” a laboratory must achieve a z-score of <2 . For 2024, SOCOTEC had an average z-score of 0.19

Bought in ISO Guide 34 and ISO/IEC 17025 certified standards are used to prepare calibration and QC standards.

2% of tubes are checked for blankness during manufacture, to ensure there is no contamination introduced during the manufacturing process.

The method meets the requirements laid out in DEFRA’s “Diffusion Tubes for Ambient NO_2 Monitoring: A Practical Guidance.”

Diffusion Tube Annualisation

Annualisation was carried out on the diffusion tubes highlighted in Table C.1 below using the data processing tool provided by Defra. These tubes were missing due to tubes missing when arriving at their location and a postal issue resulting in data loss.

Table C.1 – Annualisation Summary (concentrations presented in $\mu\text{g/m}^3$)

Site ID	Annualisati on Factor Linkway	Annualisati on Factor Southworth Road	Annualisati on Factor High Street	Annualisati on Factor Borough Road	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean
2			1.1539	1.0678	1.1108	12.7	14.1
3			1.0648	1.0117	1.0383	12.7	13.1
5			1.1078	1.0186	1.0632	17.7	18.8
6			1.0894	1.0612	1.0753	20.1	21.6
8			1.1720	1.0869	1.1295	18.6	21.0
11			1.1622	1.1806	1.1714	31.0	36.4
13			1.1142	1.0935	1.1039	17.9	19.7

Site ID	Annualisati on Factor Linkway	Annualisati on Factor Southworth Road	Annualisati on Factor High Street	Annualisati on Factor Borough Road	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean
14			1.0978	1.0869	1.0924	-	-
23			1.0978	1.0869	1.0924	28.1	30.7
15			1.2528	1.1691	1.2110	19.6	23.8
24			1.0538	1.0186	1.0362	57.1	59.1
20			1.0302	1.0286	1.0294	10.8	11.1
21			1.1078	1.0186	1.0632	20.5	21.8
28			1.0466	1.0037	1.0251	24.2	24.8

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance 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.

St Helens Council have applied a national bias adjustment factor of 0.78 to the <Year> monitoring data. A summary of bias adjustment factors used by St Helens Council over the past five years is presented in Table C.2.

There are one set co-located triplicates at Southworth Road and two sets of co-located duplicate diffusion tubes at the Linkway monitor and the High Street monitor within St Helens. Even though the LAQM TG16 guidance states “To validate NO₂ diffusion tube data (bias adjustment), additional tubes should be exposed in triplicate at a suitable nearby automatic monitoring station, using the same monthly exposure periods as the other sites.” the duplicate tubes results were inputted into the Defra diffusion tube data processing tool.

As the High Street Diffusion Tubes are attached to a nearby lamppost as opposed to the monitor itself. On this occasion, they were included in the annualisation final calculations as the other monitors didn't not have sufficient data capture. As the bias adjustment factor derived from the High Street Monitor was lower than the national bias factor, the worst-case national bias adjustment factor was used for the final diffusion tube results.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.78
2023	Local	-	0.86
2022	National	03/23	0.76
2021	Local	-	0.93
2020	Local	-	0.82

Notes:

A national bias adjustment factor of 0.78 has been used to bias adjust the 2024 diffusion tube results as it was the worst-case scenario option compared to the calculated local bias adjustment factor.

Table C.3 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1
Periods used to calculate bias	8
Bias Factor A	0.75 (0.62 - 0.96)
Bias Factor B	32% (4% - 61%)
Diffusion Tube Mean ($\mu\text{g}/\text{m}^3$)	28.1
Mean CV (Precision)	5.6%
Automatic Mean ($\mu\text{g}/\text{m}^3$)	21.2
Data Capture	97%
Adjusted Tube Mean ($\mu\text{g}/\text{m}^3$)	95%

Notes:

This local bias adjustment factor was not used in the final diffusion tube calculations, but data has been recorded for information.

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 St Helens Council required distance correction during 2024.

QA/QC of Automatic Monitoring



QA/QC of Automatic Air Quality Instruments

Air quality measurements from the automatic instruments are validated and ratified by Air Quality Data Management (AQDM) <http://www.aqdm.co.uk> to the standards described in the Local Air Quality Management – Technical Guidance LAQM (TG22) <https://laqm.defra.gov.uk/technical-guidance>.

Validation

This process operates on data during the data collection stage. All data are continually screened algorithmically and manually for anomalies. There are several techniques designed to discover spurious and unusual measurements within a very large dataset. These anomalies may be due to equipment failure, human error, power failures, interference or other disturbances. Automatic screening can only safely identify spurious results that need further manual investigation.

Raw data from the gaseous instruments (e.g. NO_x, O₃, SO₂ and CO) are scaled into concentrations using the latest values derived from the manual and automatic calibrations. These instruments are not absolute and suffer drifts. Both the zero baseline (background) and the sensitivity may change over time. Regular calibrations with certified gas standards are used to measure the zero and sensitivity. However, these are only valid for the moment of the calibration since the instrument will continue to drift. Raw measurements from particulate instruments (e.g. PM₁₀ and PM_{2.5}) generally do not require scaling into concentrations. The original raw data are always preserved intact while the processed data are dynamically scaled and edited.

Ratification

This is the process that finalises the data to produce the measurements suitable for reporting. All available information is critically assessed so that the best data scaling is applied and all anomalies are appropriately edited. Generally this operates at three, six or twelve month intervals. However, unexpected faults can be identified during the instrument routine services or independent audits which are often at 6-monthly intervals. In practice, therefore, the data can only be fully ratified in 12-month or annual periods. The data processing performed during the three and six monthly cycles helps build a reliable dataset that is finalised at the end of the year.

There is a diverse range of additional information that can be essential to the correct understanding and editing of data anomalies. These may include

- the correct scaling of data
- ignoring calibrations that were poor e.g. a spent zero scrubber
- closely tracking rapid drifts or eliminating the data
- comparing the measurements with other pollutants and nearby sites
- corrections due to span cylinder drift
- corrections due to flow drifts for the particulate instruments
- corrections for ozone instrument sensitivity drifts
- eliminating measurements for NO₂ conversion inefficiencies
- eliminating periods where calibration gas is in the ambient dataset
- identifying periods where instruments are warming-up after a powercut
- identification of anomalies due to mains power spikes



- correcting problems with the date and time stamp
- observations made during the sites visits and services

The identification of data anomalies, the proper understanding of the effects and the application of appropriate corrections requires expertise gained over many years of operational experience. Instruments and infrastructure can fail in numerous ways that significantly and visually affect the quality of the measurements. There are rarely simple faults that can be discovered by computer algorithms or can be understood without previous experience.

The PM₁₀ and PM_{2.5} concentrations may require scaling into Gravimetric Equivalent concentration units by use of the Volatile Correction Model (VCM) <http://www.volatile-correction-model.info> or by corrections published by Defra <https://uk-air.defra.gov.uk/networks/monitoring-methods?view=mcerts-scheme> depending on the measurement technique.

Further information about air quality data management, expert data ratification and examples of bad practices are given on the Air Quality Data Management (AQDM) website <http://www.aqdm.co.uk>.

PM₁₀ and PM_{2.5} Monitoring Adjustment

Section 7.165 in TG.22 will provide detail of the PM adjustment factors applied in the ratification of data process:

“Beta Attenuation Monitors (BAMs) pass air through a filter material and monitor the increase in mass by the attenuation of beta radiation. BAM instruments are made by multiple manufacturers.”

Automatic Monitoring Annualisation

Annualisation was carried out at the Southworth Road automatic monitor due to a less than 75% data capture. The data loss was due to the monitor breaking. Annualisation was also carried out on the BAM PM₁₀ monitor at Linkway due to less than 75% data capture. Annualisation was carried out using box 7-9 in the LAQM.TG (22) guidance. Glazebury and Wigan Centre monitors were used for the Southworth Road calculations. Wigan Centre and Warrington Selby Street monitors were used for the PM₁₀ Linkway annualisation calculations. This was approved prior to the commencement of the calculations.

Table C.4 – Automatic NO₂ Annualisation Summary (concentrations presented in µg/m³)

Background Site	Annual Data Capture (%)	Annual Mean (A _m)	Southworth Road	
			Period Mean (P _m)	Ratio (A _m / P _m)
Wigan	100.0	12.7	11.3	1.124
Glazebury	100.0	11.2	9.5	1.179
Average (R _a)			1.151	
Raw Data Annual Mean (M)			24.8	
Annualised Annual Mean (M x R _a)			28.5	

Table C.5 – Automatic PM₁₀ Annualisation Summary (concentrations presented in µg/m³)

Background Site	Annual Data Capture (%)	Annual Mean (A _m)	Linkway	
			Period Mean (P _m)	Ratio (A _m / P _m)
Warrington - Selby Street	95.5	12.6	12.6	1.000
Wigan Centre	100.0	12.0	12.0	1.000
Average (R _a)			1.000	
Raw Data Annual Mean (M)			15.5	
Annualised Annual Mean (M x R _a)			15.5	

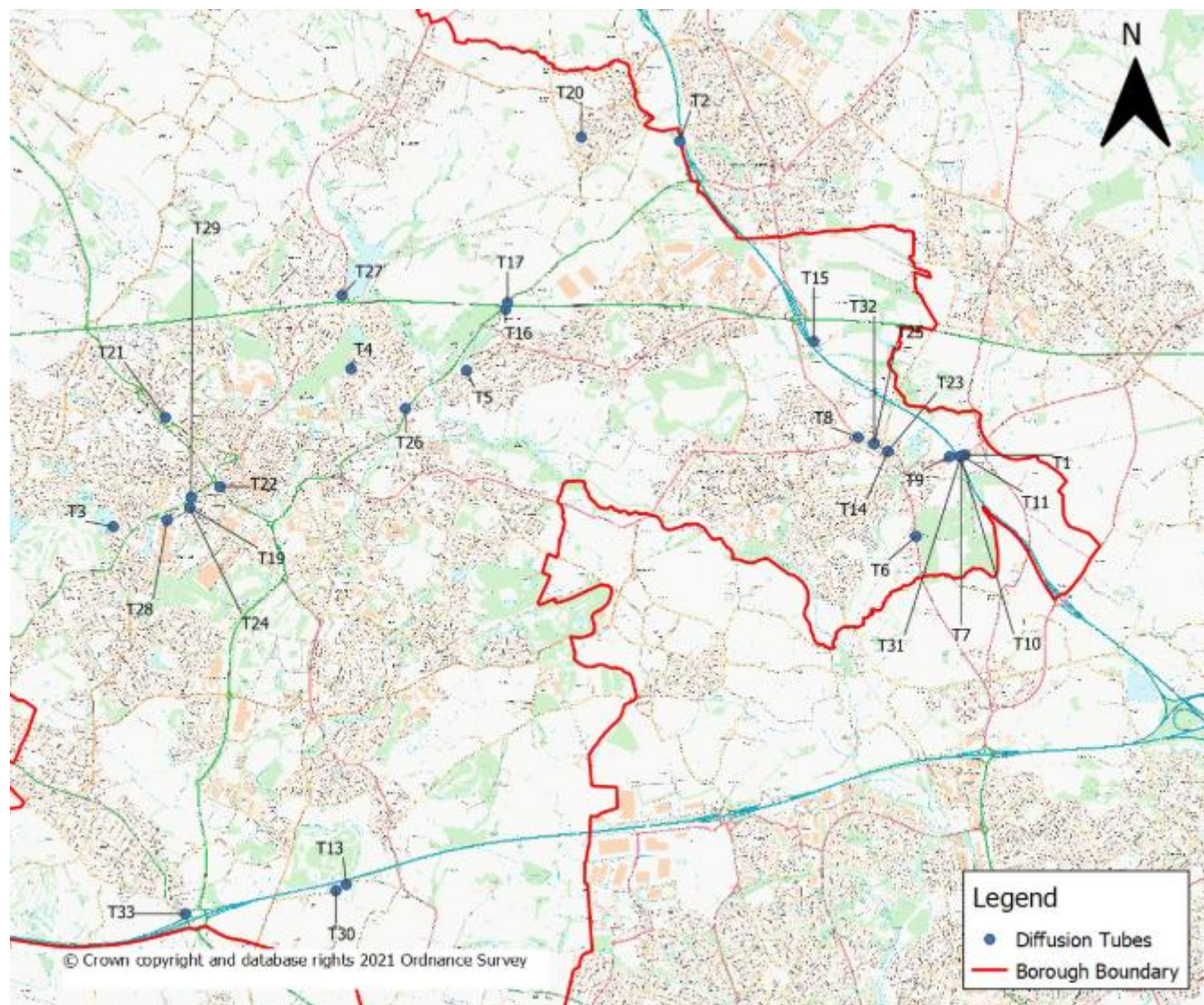
NO₂ Fall-off with Distance from the Road

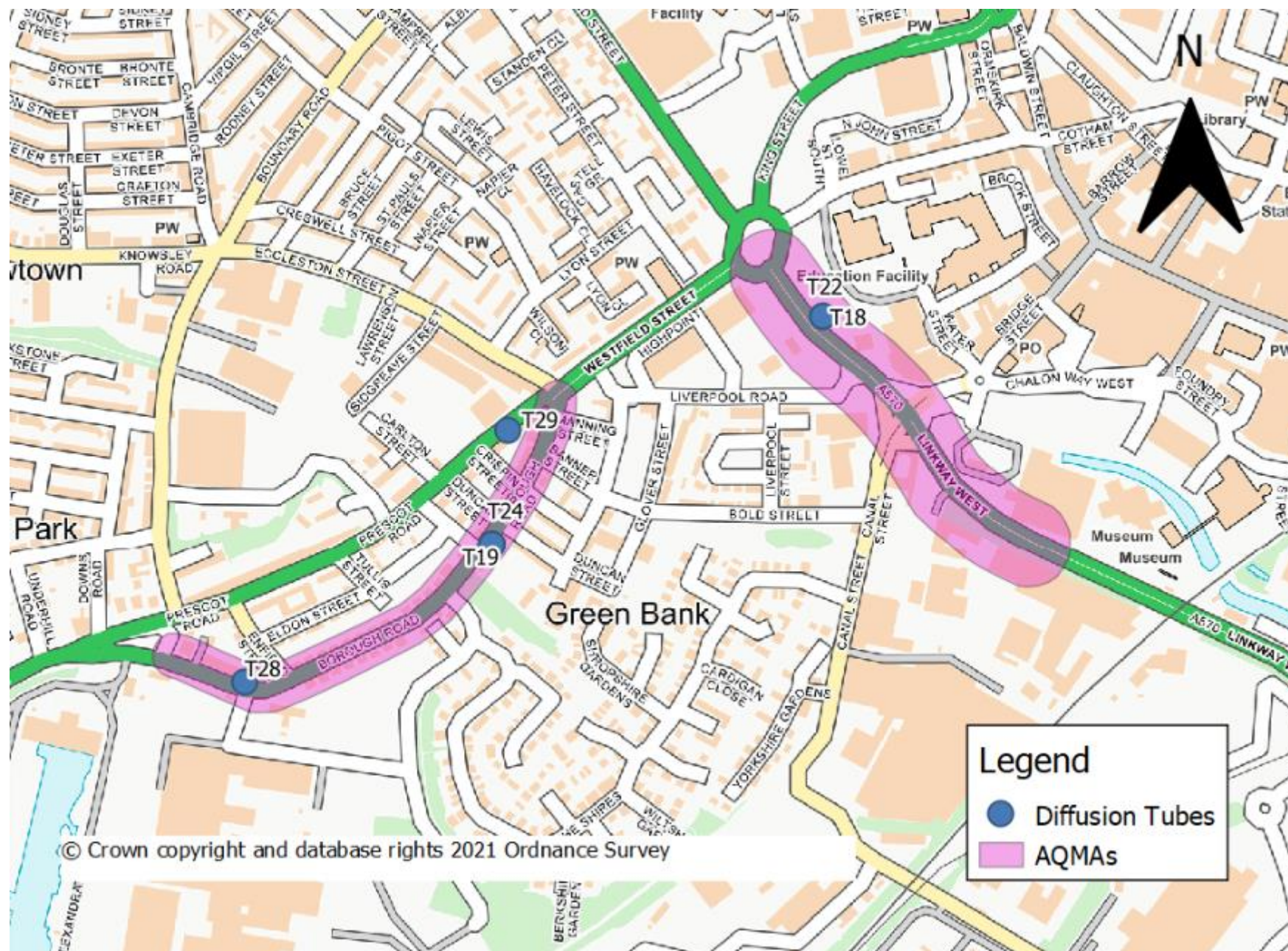
Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO₂ concentrations corrected for distance are presented in Table A.3.

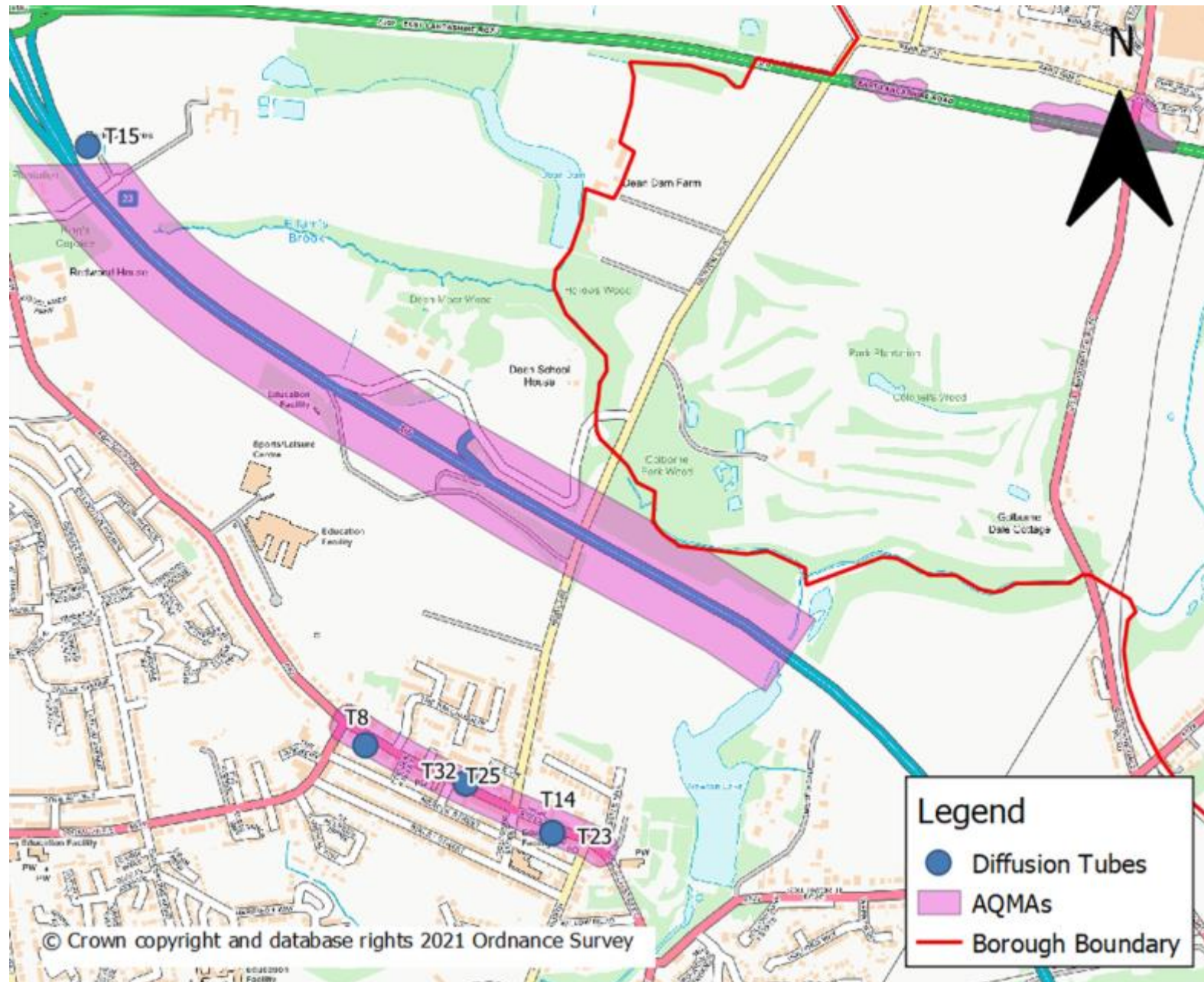
This was not required for any of the diffusion tubes for 2023.

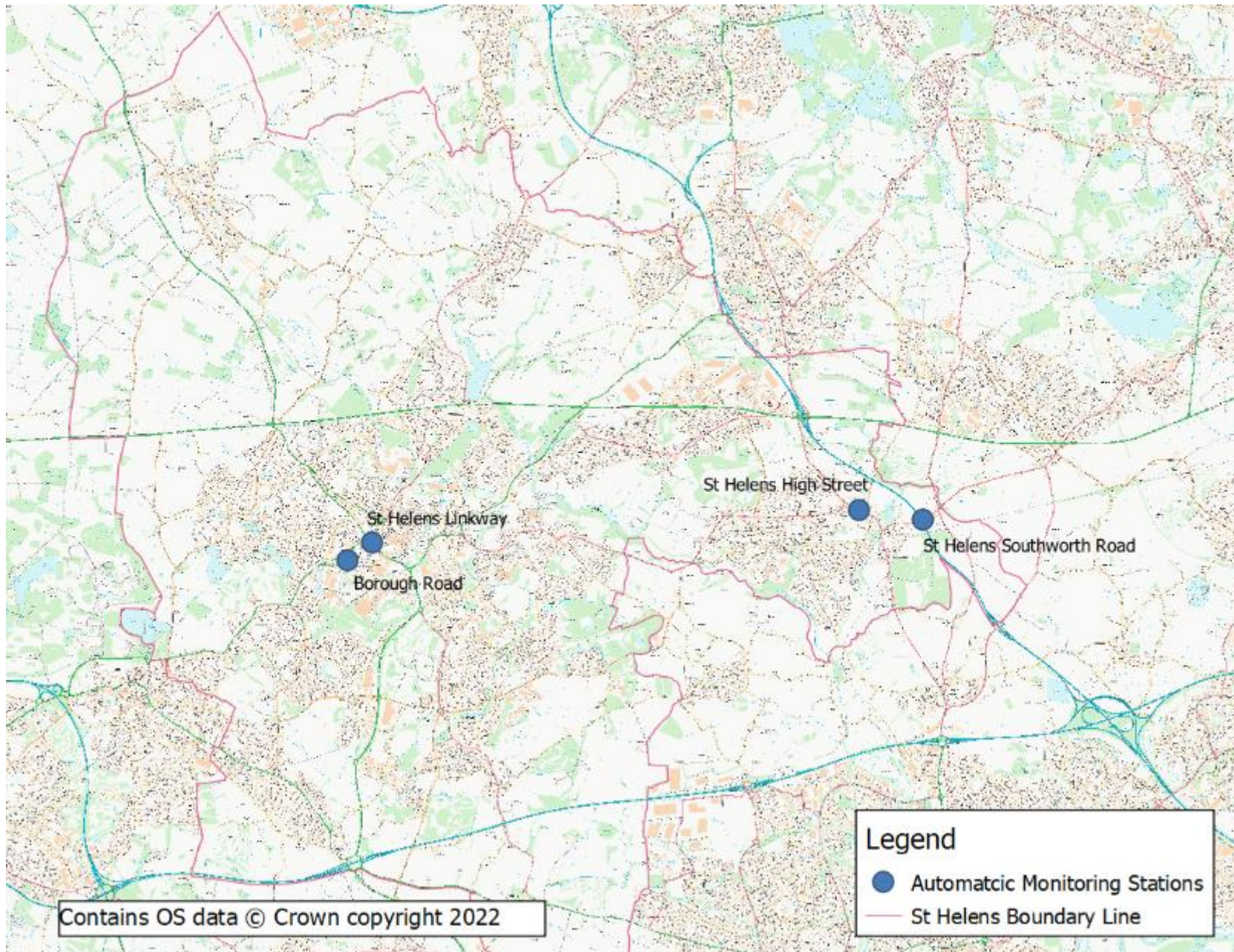
Appendix D: Map(s) of Monitoring Locations and AQMAs

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









Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England³

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

³ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Appendix G: Major Planning Applications (2024)

Application Number	Site Address	Proposal	Status	Decision Date	Extended Date	26 Week Date
P/2024/0592/FUL	Land Site Of Former Hays Chemical Works	Erection of 32no. dwellings (Class C3), 5,134 sqm extension to existing warehouse (B8) and construction of new vehicle access points, associated landscaping and infrastructure works.	Pending Consideration		31-Mar-25	#####
	Lancots Lane St Helens					

P/2024/0596/FUL	Land At Smock Lane	Proposed residential development of 17 dwellinghouses with associated landscaping and access from Smock Lane following removal of bowling green and allotments.	Pending Consideration		30-Apr-25	#####
	Garswood St Helens					
P/2024/0319/FUL	Rocklands House	Conversion and extension of an existing office to form 9 residential units with associated landscaping and parking work (amended description)	Granted	20-Dec-24	20-Dec-24	26-Dec-24
	View Road					

	Rainhill St Helens L35 0LG					
P/2024/0327/S73	Former Ibstock Brick Roughdales Ltd	Application to vary Conditions 1 (approved plans) and 17 (parking areas), of reserved matters approval P/2021/0585/RES to amend layout and housetypes, and amend the Condition wording in relation to the delivery of a scheme for the treatment of the existing culvert security screens. The application also proposes the removal of Condition 8 (vehicle maintenance access routes) of reserved matters approval P/2021/0585/RES. (Amended Description)	Granted	18-Oct-24	18-Oct-24	31-Dec-24

[illegible]

P/2024/0377/S73	Land At Former Thatto Heath Royal British Region Club Scholes Lane Thatto Heath St Helens WA10 3NU	Removal of condition 8 (affordable housing) on approval P/2021/0026/S73.	Pending Decision		24-Jan-25	28-Jan-25
P/2024/0190/S73	St Helens Community Fire Station Parr Stocks Road St Helens WA9 1NU	Variation of condition 7 (arboricultural supervision) on approval P/2021/0263/FUL	Pending Consideration		28-Mar-25	09-Oct-24

P/2025/0004/FUL	Site Of Former Moss Bank Sports And Social Club Queensway St Helens	Development of 6 number B8 use class commercial units, 5 number B2 use class commercial units, with associated parking, gated access and landscaping, along with the development of 2 number semi-detached residential dwellings with associated parking, landscaping and dropped kerb access.	Pending Consideration			22-Jun-25
-----------------	---	---	--------------------------	--	--	-----------

P/2024/0059/FUL	151 Products Abbotsfield Road Bold St Helens WA9 4HU	Proposed high bay warehouse extension	Granted	19-Jul-24	19-Jul-24	30-Jul-24
-----------------	--	--	---------	-----------	-----------	-----------

P/2024/0419/HYEIA	Land Site Of Former Parkside Colliery	Hybrid application for former Parkside Colliery Phase 2 comprising employment floorspace (Use Class (B8) and B2 / E(g) (ii) / E(g)(iii) with ancillary (E(g)(i)) and associated servicing and infrastructure, including sub-station, car parking, vehicle and pedestrian circulation space (outline application) and detailed enabling and infrastructure works, to facilitate employment development comprising site wide earthworks to create development platforms, details of strategic landscaping, planting, ecological and noise mitigation, drainage and ground works and details of the means access served from the Parkside Link Road (PLR) (full application).	Pending Consideration		30-Apr-25	20-Feb-25
	Winwick Road					

	Newton Le Willows					
	St Helens					
P/2024/0434/S73	Land Site Of Former Parkside Colliery	Variation of condition 4 (approved plans) and removal of conditions 25 and 26 (off-site highway improvement works) on the outline planning permission P/2018/0048/OUP.	Pending Consideration		31-Mar-25	02-Mar-25
	Winwick Road					
	Newton Le Willows					
	St Helens					

P/2024/0559/HYBR	Scott Clinic	Full planning permission for the demolition of all existing buildings, and the erection of a Gospel Hall (F1(f) use class), a Members only Retail Store (Sui Generis) to include a storage garage, ancillary to the F1(f) Use Class, along with the creation of a new access off Elton Head Road together with associated car parking, landscaping, drainage, and other associated works.	Pending Consideration		11-Mar-25	#####
------------------	--------------	---	-----------------------	--	-----------	-------

	Rainhill Road	Outline planning permission (with all matters reserved save for access) for the erection of Use Class F development of up to 2,542.62 sqm [GIA] (restricted to Class F1(a), F1(e), F1(f), F2(b)), associated car parking, landscaping, drainage, and other associated works				
	Rainhill St Helens WA9 5BD					

P/2024/0631/FUL	Former Robert McBride Limited	Change of use of industrial unit to allow operation of the unit under Use Classes B2 (General Industrial) and/or B8 (Storage and Distribution) and/or E(g)(iii) (Light Industrial) with ancillary office.	Pending Decision		14-Mar-25	10-Jun-25
	Eurolink Sutton Manor St Helens WA9 4TT					

P/2024/0042/S73	Unit 4	Variation of condition 1 on approval P/2023/0188/S73 to facilitate the delivery of Unit 4 at Omega West and seek the flexible B2 and/or B8 use of floorspace across the application site.	Granted	25-Apr-24		24-Jul-24
	Omega West Zone 8 St Helens					

P/2024/0045/FUL	Land To The West Of Millfield Lane And South Of Liverpool Road Haydock	Construction of new employment units for flexible use across Classes E (g) (iii), B2 and B8, with ancillary offices, car parking, service yards, infrastructure, landscaping, ancillary structures and associated works plus the provision of access to the site from Millfield Lane and Liverpool Road.	Pending Decision		14-Feb-25	25-Jul-24
	St Helens					

P/2024/0114/RES	Land Bounded By Stanley Street To The North And North West, Haydock Street, Bridge Street And Queen Street To The East, Market Street To The West, Queen Street And Railway Street To The South	Reserved Matters Application following outline consent P/2022/0213/HYBR seeking approval for Access, Appearance, Landscaping, Layout and Scale for the development of a proposed market canopy, with associated landscaping, parking, servicing and public realm works at Market Square. Along with details required by conditions to be submitted with reserved matters no. 9, 10, 11, 13, 15, 16, 17, 18, and satisfy other relevant conditions.	Granted	12-Dec-24	13-Dec-24	29-Aug-24
	Earlestown St Helens					

P/2024/0209/S73	Fire Clay Farm	Variation of condition 6 (Building Demolition for Green Belt), 13 (CEMP), 19 (Site Investigation) & 25 (Waste Management) on approval P/2023/0176/FUL to vary the wording of conditions	Granted	22-Oct-24	25-Oct-24	24-Oct-24
	Higher Lane Rainford St Helens WA11 8NQ					

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
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.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra.
- <https://www.sthelens.gov.uk/business/environmental-health/environmental-protection/air-quality/>
- www.sthelens.gov.uk
- [Merseytravel | Liverpool City Region Travel Information](#)
- Policy Guidance LAQM.TG16
- [Local Air Quality Management \(LAQM\) Support - Defra, UK](#)
- © Ordnance Survey 2022
- © Ordnance Survey 2023