ADUR & WORTHING
COUNCILS



2026 Air Quality Annual Status Report (ASR)

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

Date: July, 2026

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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Health & Licensing Team at Adur & Worthing Councils with the support and agreement of the following officers and departments:

- Adur & Worthing Councils: Planning, Parking Services, Place & Economy, Waste Services.
- West Sussex County Council: Jamie Dallen, Transport Planning and Policy Team; Planning Services; Liz Robbins, Team Leader, ITS and Traffic Monitoring, Highways, Transport and Planning; Public Health Team.

This ASR has been approved by:

Cllr Andrew Harvey, Adur Cabinet Member for the Environment



AND

Cllr Martin McCabe, Worthing Cabinet Member for the Environment

- The West Sussex Public Health Team have been consulted and their feedback has been incorporated into this ASR.

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

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Executive Summary: Air Quality in Our Area

Air Quality in Adur and Worthing

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

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

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

Table ES 1 - Description of Key Pollutants

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

Actions to Improve Air Quality

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

The Environmental Improvement Plan[1] sets out actions intended to drive continued improvements to air quality and to meet the new national interim and long-term targets for fine particulate matter ($PM_{2.5}$), the pollutant of most harm to human health. The Air Quality Strategy[2] provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero[3] details the Government's approach to reduce exhaust emissions from road transport in balance with the needs of the local community. This is extremely important given that the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations from transport emissions.

This report covers actions during 2025.

In 2025 we progressed a number of measures in pursuit of reduced concentrations of pollutants and attempt to improve air quality across both Adur and Worthing. These included drafting a new Air Quality Strategy (AQS) for Adur, holding our first Worthing Air Quality Action Plan (AQAP) Steering Group meeting, continuing discussions with car club providers to develop car clubs at new developments, continued to provide a bike share scheme across both areas (Donkey Bikes) and ensured 'major' developments in the planning process took account of air quality impacts, securing section 106 funds where appropriate. We also installed a low-cost sensor in Shoreham High Street as part of the Brighton & Hove and Sussex Real Time Air Quality Network.

West Sussex County Council (WSCC) provided a new parallel crossing on Upper Shoreham Road, Shoreham and new cycle bypasses in Middle Road, provided a new segregated cycle track on Lancing Beach Green, carried out preliminary design work for the A259 Shoreham to Brighton & Hove and Lancing-Sompting active travel schemes and progressed with the School Streets initiative at Swiss Gardens Primary, Shoreham Academy and Thomas A Becket Junior School.

[1] Defra. Environmental Improvement Plan 2023

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

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

Conclusions and Priorities

Measured concentrations of Nitrogen Dioxide (NO_2) during 2025 revealed a mixed picture across Adur & Worthing compared to 2024. Levels at our automatic monitoring site in Shoreham increased slightly, whereas in Worthing they decreased. There were no recorded exceedances of the one hour mean objective of 200µg/m^3.

15 of our 28 diffusion tubes in Adur showed an increase in the measured annual means. Conversely in Worthing 13 sites decreased and 13 showed small increases.

All measurement sites had concentrations below the annual mean objective of 40µg/m^3. The one site within the Worthing Air Quality Management Area (AQMA) No.2 which has consistently exceeded the objective, fell below this level for the first time. Whilst still within 10% of the objective, we hope this is the start of a downward trend at this location.

Measured concentrations of Particulate Matter $PM_{2.5}$ in both Shoreham and Worthing increased by just over 1µg/m^3. Whilst below the current limit value and the 10µg/m^3 long term Air Quality Strategy Objective, this is a concern and something we need to look into further. Our Air Quality Action Plan (AQAP) in Worthing and Air Quality Strategy (Adur) both contain commitments to address $PM_{2.5}$.

Development pressures remain across both Adur District & Worthing Borough. A large number of major developments have been granted permission, particularly in Worthing town centre and Shoreham Harbour. Construction commenced or continued on some of these developments, but many have yet to be fully occupied. Balancing the demand for development with the need to improve air quality brings challenges. Conversely these developments also bring opportunities to improve infrastructure, especially for walking and cycling.

Specific priority actions for next year include completing public consultation and publication of an Air Quality Strategy in Adur; seeking improvements to infrastructure in and around the Worthing AQMA, working with National Highways and WSCC through the AQAP Steering Group; considering air quality during the development control process when looking at the impacts of major developments; working with WSCC and others to improve public transport options across both Adur and Worthing; shaping and delivering improvements for active travel (walking and wheeling) for shorter journeys; liaising with the WSCC Public Health Team on improving air quality; improving the provision of local air quality information and community participation; and adding low cost sensors to our monitoring capabilities.

How to get Involved

We encourage interaction with interested parties in the area, including community groups, schools, bus providers, transport planners, planning policy and development control. The Councils are both active members of the Sussex Air Quality Partnership (Sussex-air), co-chairing the Partnership. Sussex-air provides assistance to members and information to the public via a website, which provides air quality data, news updates, educational resources and relevant links. See http://www.sussex-air.net/ for more information.

As both Adur and Worthing are restricted by the sea to the south and the Downs to the north, there are significant development pressures across the area. So it is important for interested parties, relevant authorities and infrastructure stakeholders to work together to achieve improved air quality outcomes. It is noted and regrettable that National Highways have once again not provided suitable content for this year's report.

Locally the Council will seek engagement from residents and businesses who may have innovative ideas to help reduce air pollution in and around Adur & Worthing.

Modelling shows that small diesel cars are responsible for over 40% of the NO_2 concentrations in Worthing's AQMA.

The Sussex-air website provides tips for residents to help play their part to improve air quality: https://sussex-air.net/

Could I walk or cycle instead of taking the car? Could I take a bus or train? What is the forecast for air pollution today? (See https://sussex-air.net/)

Using quieter streets when you're on a bike or on foot can lower your exposure to air pollution by up to 20%.

If you must drive, do so smoothly and don't rev your engine unnecessarily. You'll save fuel, and your engine will also pollute less. Maintain your car, keep the engine properly tuned and the tyres at the right pressure. For those vehicles without auto start-stop technology, switch off your engine when your car is stationary for prolonged periods, particularly at main junctions and level crossings. By not idling your engine you'll help to make the air cleaner for you, other drivers, pedestrians and cyclists.

At home, to reduce indoor air pollution buy water-based or low-solvent paints, varnishes, glues and wood preservatives. Consider using pick up points at shops or lockers in train stations to help reduce pollution from delivery vans which are often diesel. If this is not

possible, grouping deliveries together can reduce the number of journeys made by delivery vans.

Open fires and wood-burning stoves have risen in popularity, particularly as gas and electricity prices have risen. This means more smoke from chimneys, which has a negative effect on air quality, particularly in relation to fine particulate matter $PM_{2.5}$. This can cause breathing problems, asthma attacks and contribute to other health conditions. The use of inappropriate fuels such as treated or damp wood can cause additional problems with local air quality.

The website at the link below provides information and advice for those that must use wood burning stoves or open fires. Following its advice can help reduce the effect of burning: https://sussex-air.net/clean-burn/. However, if you do not have to burn wood for your primary source of heating then we strongly recommend not doing so.

Avoid lighting bonfires and instead take waste to your local recycling centre for them to compost, sign up for our garden waste collection service, buy some garden waste sacks or make compost at home. Never burn household waste, particularly plastic, rubber, foam or paint. Levels of pollution can be quite high on bonfire night and other events/festivals and sensitive people, including people with respiratory conditions, may notice some effects. Exposure can be reduced by remaining indoors and keeping windows closed. Further information is available on our website at https://www.adur-worthing.gov.uk/environmental-health/pollution/air-quality-and-pollution/bonfires-and-smoke/.

Check the pollution forecast available via the Met Office and take action to limit your exposure when high pollution episodes are predicted.

Sign up to West Sussex Extreme Weather and Air Quality Alerts via the following link - https://public.govdelivery.com/accounts/UKWSCC/subscriber/new. This can help residents take appropriate steps to protect their health during periods of poor air quality.

Information on Air Quality, including reports and monitoring results, is available on our website at https://www.adur-worthing.gov.uk/environmental-health/pollution/air-quality-and-pollution/.

Information is also available at http://www.sussex-air.net/.

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1 Local Air Quality Management

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

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Adur and Worthing 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 Adur and Worthing can be found in Table 2.1.

Worthing Borough Council

The table presents a description of the AQMA that is currently designated within the **Worthing Borough**. Appendix D: Map(s) of Monitoring Locations and AQMAs provides a map of the AQMA and also the air quality monitoring locations in relation to the AQMA. The air quality objectives pertinent to the current AQMA designation are as follows:

- NO_2 annual mean

Adur District Council

Adur District Council does not have any declared AQMAs. A local Air Quality Strategy to prevent and reduce polluting activities is imminent.

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?	Highest Concentration: Declaration	Highest Concentration: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
Worthing Borough Council AQMA No.2	Declared 13/07/201 Amended 15/12/2014	NO_2 Annual Mean	Crockhurst Hill, Offington Corner Roundabout, Warren Road, Grove Lodge Roundabout, Upper Brighton Road up to and including the Downlands Retail Centre and Lyons Way	YES	71.5	36.3	0	Worthing Air Quality Action Plan 2024	https://www.adur-worthing.gov.uk/environmental-health/pollution/air-quality-and-pollution/local-air-quality-management/

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

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

2.2 Progress and Impact of Measures to address Air Quality in Adur and Worthing

Defra's appraisal of last year's ASR concluded "On the basis of the evidence provided by the local authority the conclusions reached are **accepted** for all sources and pollutants."

Comments from last year's ASR appraisal:

1. The Councils have provided a justification of the choice of national bias adjustment factor. This is commended and is encouraged to continue in future reports.

2. The Councils provide clear, well-presented graphs with robust comparisons of their 2024 monitored concentrations with the air quality objectives. This is welcomed and is encouraged to continue in future reports.

3. The Council has removed erroneous data from the NO_2 diffusion tube dataset presented in Table B.1. This is commended and demonstrative of good practice.

4. The Councils have provided excellent mapping of all monitoring locations within the Council and included AQMA boundary, which is commended.

5. Reviewer comments from the previous report have been considered and incorporated into the report to strengthen transparency and continuous improvement. This is welcomed.

6. The council has included a good deal of description of their measures and the progress that has been made this reporting year, including details regarding funding of measures and their funding sources.

7. The graphs and maps are generally well presented and are clear to read. The Council have also provided a detailed discussion of the trends in pollutant concentrations.

8. Updates on the finalisation of the AQS for Adur is anticipated in next year's report. *At the time of writing, the AQS had been through public consultation and was due before committee for approval.*

Adur District and Worthing Borough Councils have taken forward several direct measures during the current reporting year of 2025 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. For Adur there are 10 measures and for Worthing 16 measures included within Table 2.2, with the type of measure and the progress Adur District and Worthing Borough Councils have made during the reporting year of 2025 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

Note that next year the 10 measures for Adur will be replaced by those within the new AQS.

More detail on the measures can be found in the Worthing Air Quality Action Plan, Adur and Worthing Corporate Strategy[4], West Sussex Active Travel Strategy 2024-2036[5], Adur & Worthing Local Cycling and Walking Infrastructure Plan[6] (LCWIP), West Sussex Transport Plan 2022-2036 (WSTP)[7], West Sussex public health and sustainability framework – Creating healthy and sustainable places[8], West Sussex Electric Vehicle Strategy 2019-2030[9], Adur Local Plan 2017 and Worthing Local Plan 2023[10].

Key completed measures are:

- Drafted an Air Quality Strategy for Adur, consultation in early 2026;
- Held our first Worthing AQ Action Plan Steering Group meeting;
- Continued discussions with car club providers to develop car clubs at new developments across Adur & Worthing;
- Provided a new parallel crossing on Upper Shoreham Road, Shoreham at the junction with Buckingham Road and new cycle bypasses in Middle Road;

[4] https://www.adur-worthing.gov.uk/fair-green-and-local/

[5] https://www.westsussex.gov.uk/about-the-council/policies-and-reports/roads-and-travel-policies-and-reports/west-sussex-active-travel-strategy-2024-2036/

[6] https://www.adur-worthing.gov.uk/media/Media,158651,smxx.pdf

[7] https://www.westsussex.gov.uk/media/17428/wstp.pdf

[8] https://www.westsussex.gov.uk/media/15845/creating_healthy_and_sustainable_places_ws.pdf

[9] https://www.westsussex.gov.uk/media/13766/electric_vehicle_strategy.pdf

[10] https://www.adur-worthing.gov.uk/planning-policy/

- Provided a new segregated cycle track on Lancing Beach Green between the western entrance and the skatepark, which has alleviated pedestrian and cycle conflict that occurred on the old shared path in front of The Perch Café and kiosk;
- WSCC preliminary design work continued to progress proposals for the A259 Shoreham to Brighton & Hove boundary and east-west Lancing-Sompting active travel schemes.
- Continuation of the Council's bike share scheme (Donkey Bikes) across Adur and Worthing, combined funding through pooled business rates and WSCC Lane Rental Scheme has meant this initiative will continue delivery through to 2027;
- Installation of a low cost sensor in Shoreham High Street as part of the Brighton & Hove and Sussex Real Time Air Quality Network, measuring nitric oxide, nitrogen dioxide, ozone and particulate matter - see https://portal.earthsense.co.uk/BrightonHoveandSussexPublic/.
- Continuation of the large, low carbon heat network in Worthing Town Centre, with removal of multiple large gas boilers from public and private sector developments, which will assist in the reduction of NOx emissions;
- Continuation of School Streets, launched in 2023, at Swiss Gardens Primary and Shoreham Academy and Thomas A Becket Junior School, Worthing.
- Continued to work with WSCC on the Connected Kerb EV charge point project, identifying and installing kerbside charge point sites across Adur & Worthing;
- Use of the Sussex Air Quality Emissions Mitigation Planning Guidance when looking at the impacts of 'major'[1] developments. The Guidance has assisted the Councils with obtaining costed air quality mitigation at development sites and relevant section 106 funds.

Adur and Worthing expects the following measures to be completed over the course of the next reporting year:

- Complete consultation and publish the Air Quality Strategy for Adur;
- Continue to hold Worthing AQAP Steering Group meetings to deliver the actions contained within the Worthing AQAP;
- Continue to embed air quality considerations into the development control process when looking at the impacts of major developments, with reference to the Sussex Air Quality Emissions Mitigation Planning Guidance;
- Improve the provision of local air quality information via the Sussex-air website;
- Improve community participation using our Communications team to aid messaging;

- Continue to seek alternative funding to deliver a schools and community group educational programme (this would be across West Sussex, not just Adur and Worthing);
- Progress a revision of the Sussex-air 'Air Quality & Emissions Mitigation Planning Guidance for Sussex' as part of the Sussex-air project team, informed by EPIC (Environmental Policy Implementation Committee[11]);
- Continue to engage with the County school streets programme through regular sustainability meetings with the WSCC team.

Adur and Worthing's priorities for the coming year are

- Complete the public consultation and publish the Air Quality Strategy for Adur;
- Progress measures in our Worthing AQ Action Plan through our steering group, inviting WSCC Public Health to participate;
- Continue to seek improvements to infrastructure in and around the Worthing AQMA, working with National Highways and WSCC via the steering group;
- Continue to embed air quality considerations into the development control process when looking at the impacts of major developments, with reference to the Sussex Air Quality Emissions Mitigation Planning Guidance;
- Work with WSCC and others to improve public transport options across both Adur and Worthing, as this appears to have the greatest scale potential to influence modal shift away from private vehicles;
- Continue shaping and delivering improvements for active travel (walking and wheeling), promoting active travel for shorter journeys and work with WSCC on the development of larger schemes across Adur and Worthing;
- Liaise with the WSCC Public Health Team on improving air quality, with particular reference to the West Sussex Coastal Inequalities Framework[12] and the WSCC Creating Healthy and Sustainable Places Framework[13].
- Continue in our efforts to seek alternative funding to deliver a schools and community group educational programme (this would be across West Sussex, not just Adur and Worthing);

[11] https://www.the-ies.org/communities/epic

[12] https://jsna.westsussex.gov.uk/assets/core/west-sussex-coastal-inequalities-framework-v1.pdf

[13] https://www.westsussex.gov.uk/media/15845/creating_healthy_and_sustainable_places_ws.pdf

- Improve the provision of local air quality information and community participation to engage residents in behaviour change, better utilising our Communications team to improve our messaging;
- Add low cost sensors to our monitoring capability for use in both Adur and Worthing.

Adur and Worthing worked to implement these measures in partnership with the following stakeholders during 2025:

- West Sussex County Council
- Sussex-air
- National Highways

The principal challenges and barriers to implementation that Adur and Worthing anticipates facing are

1. *Input from National Highways.* To deliver the Worthing AQAP we require meaningful engagement from National Highways, particularly as the A27 is a key trunk road under their jurisdiction. This is a major issue as they have not engaged when we have approached them for assistance.

2. Development pressures across both Adur and Worthing.

A large number of major developments have been granted permission and there are still a large number planned, particularly around Shoreham Harbour. Balancing the demand for development with good air quality is challenging. These developments do also bring opportunities to improve infrastructure, especially for walking and cycling, and thus limit the impacts on the Worthing AQMA and avoid creating new hotspots. Many developments in Worthing, either granted or planned, are in or close to the Town Centre, some distance from the AQMA. Similarly, there are several planning permissions granted for development at the Western Harbour Arm, Shoreham, or in the vicinity, some of which are almost completed.

Adur

Adur District Council is at an early stage of preparing a new local plan. Significant changes to the planning system are expected to be introduced in 2025. The new local plan will be prepared and adopted under the new system.

The Adur Local Plan 2017 allocated the following sites:

- West Sompting – allocated in the Adur Local Plan for a minimum of 480 homes and a range of open space. Application AWDM/0323/19 was granted consent on 20th September 2021, for a total of 469 dwellings, subject to completion of a s106 agreement which is anticipated by the end of summer 2023. The S.106 was signed on 7th August 2023. Phase 1 for 96 units has been approved in full, and development has commenced.
- New Monks Farm. Application AWDM/0961/17 was determined on 4th February 2020 (following completion of the associated s106). Outline permission was granted for 249 dwellings and other matters including a country park and relocation and extension of a gypsy and traveller site, in addition to outline permission for 351 further dwellings, a primary school, and a non-food retail store (use class A1). This retail store was intended to replace the employment allocation originally sought by the Adur Local Plan 2017, creating a number of jobs, and contributing to the local economy. A Reserved Matters application for the additional dwellings was submitted in 2022. This proposed an increase of 34 dwellings from the outline approval. The plans submitted related to the erection of 385 dwellings and Community Hub (Flexible Class E/F1/F2 use). This application went to Adur Planning Committee on 30th November 2022 with the decision to grant the application subject to the completion of a planning obligation. The Deed of Variation to the original s106 agreement (under AWDM/0961/17) was signed on 13th February 2023 and supersedes some of the previous obligations. Development is well underway. The new Traveller Site has been completed and all pitches occupied. A new roundabout on Old Shoreham Road (A27) is now complete. In July 2021 IKEA announced that it would not be delivering its retail store; this allows the authority to seek commercial floor space (consistent with the Adur Local Plan policy requirement), but there may be an opportunity for further residential development. This will be considered in the new Adur Local Plan.
- The New Monks Farm application is linked to planning ref. AWDM/1093/17 at Shoreham Airport due to a shared access to the A27. This site was allocated in the Adur Local Plan 2017 for 15,000 square metres of employment generating floorspace. (Subsequent to this, application planning ref. AWDM/1093/17 was granted consent for 25,000sqm of business floorspace in 2019). A reserved matters application (AWDM/1831/21) was submitted in October 2021, and permitted in July 2022. The development is now complete and partially occupied

The Adur Local Plan (adopted 2017) allocates Shoreham Harbour Regeneration Area for a minimum of 1100 dwellings. Subsequently the Shoreham Harbour Joint Area Action Plan was adopted in 2019. At the time of writing, the following developments have come forward:

- 255 dwellings permitted at Kingston Wharf (AWDM/0204/20) in January 2021. These are now under construction.
- Development at Free Wharf (AWDM/1497/17, 548 dwellings) was granted consent in 2018; application AWDM/1315/22 sought amendments for additional dwellings on this site bringing the total to 587 dwellings. Adur Planning Committee 31st January 2023 resolved to grant consent subject to s106 agreement, which was signed on 6th march 2024.
- A development of 14 units has been completed at Humphrey's Gap on Brighton Road (AWDM/1625/16);
- Mariner's Point (132 dwellings permitted before the adoption of the Adur Local Plan and JAAP) also falls within this allocation.
- An application for the development of 176 apartments at Frosts 69-75 Brighton Road, just outside AQMA1 and was approved on 16 June 2023 (AWDM/1473/21).
- Schemes at 5 Brighton Road (Howard Kent site) were initially refused; however following appeal, one was dismissed on 8 December 2023, but the revised scheme (AWDM/1962/22) for 21 townhouses and a block of 24 flats (with revised design and provision of on-site affordable housing) was allowed on appeal on 8 December 2023.
- The Mannings (AWDM/1281/19). This is a redevelopment of an existing residential (affordable housing) block. The scheme will deliver 74 units in total, a net addition of 40 dwellings. This was approved in October 2021. (This sits outside of, but nearby, the Western Harbour Arm allocation). Development is underway.

Current housing projections for the Shoreham Harbour JAPP show potential for more development than originally anticipated, significantly more than the original projections, adding parking pressure issues and therefore increasing the importance of alternatives to private car use such as car clubs. A 'Placemaking Study' considered options for the remaining area within the allocation. This will inform site allocations which are carried forward to the new local plan.

Worthing

The Worthing Local Plan was adopted in March 2023. The Plan includes the following allocations (dwelling numbers are minimums):

- Beeches Avenue - 90 dwellings
- Caravan Club - 100 dwellings
- Centenary House - 250 dwellings and employment uses (10,000 sqm)
- Civic Centre - integrated health hub (7,000 sqm)
- Decoy Farm - employment uses (14,000 sqm)
- Fulbeck Ave - 152 dwellings
- Grafton - 150 dwellings and commercial uses (2,500 sqm)
- HMRC offices - 250 dwellings and care home – in development
- Lyndhurst Road - 150 dwellings
- Martlets Way - 28 dwellings and employment uses (10,000 sqm)
- Stagecoach site - 60 dwellings and commercial uses (2,000 sqm)
- Teville Gate - 250 dwellings and commercial uses (4,000 sqm)
- Union Place - 150 dwellings and commercial uses (700 sqm)
- Upper Brighton Road - 123 dwellings

Under the new plan making system, Worthing will be required to give notice of preparing a new plan in late 2027.

The sites at Upper Brighton Road and Beeches Avenue are in close proximity to the AQMA.

a) Developments in Adur District and Worthing Borough could have an effect on traffic volumes in the other District, particularly along the A27 and within the Worthing AQMA;

b) Providing sufficient resources in order to progress and deliver effective air quality measures. As part of the Sussex-air consortium we have been running the Sustrans schools and community engagement work. However a lack of suitable funding means this work had to cease in most of West Sussex in 2024. Alternative funding streams have been explored but to date nothing identified.

c) Identifying suitable sites for the provision of car club spaces alongside sufficient funding;

d) Purchasing alternatively fuelled large vehicles (LGV's and HGV's) to replace conventionally fuelled vehicles within the Council's fleet depends on suitable funding being made available alongside the sourcing of appropriate vehicles and associated refuelling facilities.

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

- Adur Air Quality Strategy. Development was delayed because of staff shortages. At the time of writing public consultation had been completed and the Strategy was pending approval by Full Council.
- Revision of the Sussex- air 'Air Quality & Emissions Mitigation Planning Guidance for Sussex' continued through 2025. Sussex-air were liaising with EPIC on their revised planning guidance and it was agreed we would consider that revision when revising the Sussex guidance;
- Car Club spaces were lost in central Worthing due to land redevelopment, with no immediate plans for their replacement.

Worthing Borough Council anticipates that the measures stated above and in Table 2.2 will achieve compliance in Worthing AQMA No.2.

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
ADUR														
Priority Air Quality Actions														
1	Improve the provision and quality of Public Transport options	Alternatives to private vehicle use	Other	2019	Ongoing	West Sussex County Council Adur District Council	Department For Transport, WSCC/Public Transport Operators	Partially funded	£500k	Implementation	Reduced NO_2 and PM emissions from mode shift to public transport combined with cleaner public transport fleets	Passenger numbers on public transport/WSCC Traffic counts	BSIP funding awarded for West Sussex included additional provision of real time passenger information screens at bus stops and some bus stop improvements in Adur, as well as junction traffic light priority signal upgrades in particular to support the Coastliner Route 700 service. Ongoing work with South East Communities Rail Partnership to promote use of the Sussex Coast Line. Bus operators in West Sussex continue to explore low emission fuel technologies in their fleets and local authorities are in dialogue with operators as plans develop, including consideration of any funding opportunities as they arise.	Limits to the funding available for improvements
2	Encourage the use and uptake of electric vehicles by providing on street public charging points	Promoting low emission transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging.	2023	2030	Adur District Council, West Sussex County Council, Connected Kerb	WSCC, ADC, Connected Kerb	Funded	£500k	Implementation	Reduced vehicle emissions. Estimated to be less than 1µg/m µg/m^3 based on a low to medium uptake.	Number of on street charging points provided	Programme of fleet replacement with EV/hybrid vehicles continues, as and when vehicles are due for replacement. All pool cars hybrids. Explore alternative fuels for refuse vehicles. EV charge points continue to be provided for new 'major' developments aided by new Building Regulations Approved Documents; West Sussex County Council, Adur and Worthing Councils, and all other West Sussex local planning authorities together with Connected Kerb have formed a partnership to provide a new Chargepoint network across West Sussex. The partners are working together to install thousands of chargepoints across the county, forming the West Sussex Chargepoint Network. WSCC parking standards sets increasing year on year targets for ev charge points at new developments	Space and capacity on street to accommodate suitable and sufficient spaces
3	Use/embedding of AQ Emissions Mitigation	Policy Guidance and	Air Quality Planning and Policy Guidance	2019	Ongoing	Adur District Council, Sussex-air, West Sussex County Council	ADC	Funded	<£10k	Implementation	Reduced emissions from transport	Low emission mitigation	Sussex-air Guidance last updated in April 2021. The guidance is signposted within	Developing the Guidance into a Supplementary

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
	Planning Guidance in the Planning Process	Development Control									associated with new major developments	secured in local developments	the Adur Local Plan. Guidance and appropriate mitigation is flagged as a requirement of the development control process. Emission mitigation assessments are required for major developments to ensure mitigation is provided	Planning Document would be considered if deemed necessary (but not at this stage) Update to Guidance delayed and now due 2026
1	Adur/Worthing Car Club	Alternatives to private vehicle use	Car Clubs	2022		Adur DC/Worthing BC/WSCC	Developer contributions/Adur DC	Partially Funded	£100k - £500k	Implementation	Small impact upon NO_2 concentrations from measure individually, estimated to be less than 1µg/m^3 based upon a low to medium uptake.	Number of car sharing individuals Website hits/journeys planned/Number of registrants/take-up of initiatives	Ongoing discussions with Car club providers and developers regarding specific development sites in Shoreham. These developments remain under construction. The two dedicated bays in Pond Road car park, Shoreham were reduced to one on advice from Enterprise (the car club provider).	Encouragement of Car Clubs as well as Car Sharing schemes. Car clubs embedded in planned new major developments.
2	Embed AQ Emissions Mitigation Planning Guidance for Sussex into the planning process	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2012		Adur DC/Worthing BC/WSCC	LA	Funded	< £10k	Implementation	Low Reduced emissions from transport associated with new major developments	Low emission mitigation secured in local developments	Sussex-air Guidance last updated in April 2021. The guidance is signposted within the Adur Local Plan. Guidance and appropriate mitigation is flagged as a requirement of the development control process. Emission mitigation assessments are required for major developments to ensure mitigation is provided Shoreham Harbour JAAP includes policies for sustainable travel and infrastructure improvements.	Developing the Guidance into a Supplementary Planning Document would be considered if deemed necessary (but not at this stage) Update to Guidance delayed and now due 2026
3	Behavioural Change Campaign	Promoting Travel Alternatives	Other/ Encourage / Facilitate home-working	2023		Adur DC/Worthing BC/WSCC/Sussex-air	ADC/WSCC/Sussex-air	Partially Funded	<£10k	Planning	NO_2 measure to raise public awareness	Number of campaigns	The Sussex Air/Sustrans led project ran from 2022 working with schools and communities to raise awareness of air pollution. Funding ended in early 2025. Schools in Adur included Swiss Gardens, Buckingham Park and Shoreham Academy. School Streets Trial launched in 2023 at Swiss Gardens Primary School, Shoreham, and made permanent during 2024. WSCC EASIT scheme for staff and local businesses continues. All pool cars now hybrid. Newer cleaner models being phased in.	Educational behaviour change campaigns at schools and workplaces to reduce single occupancy car trips and promote the switch to sustainable alternatives. Including promotion of district wide clean air days, homeworking where possible. Linked to Carbon Neutrality policies and schemes.
4	Ultra Low/Zero Emission Vehicle Encouragement	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2022		Adur DC/Worthing BC/WSCC	Adur DC/ WSCC/Sussex-air	Partially Funded	£1m - £10m	Implementation	Small impact upon NO_2 concentrations from measure individually,	Number of Low Emissions Vehicles	Programme of fleet replacement with EV/hybrid vehicles continues, as and when vehicles are due for replacement. All pool cars	Procuring ultra low or zero emission vehicles for council owned fleets. Including further

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											estimated to be less than 1µg/m^3 based upon a low to medium uptake.		hybrids. Explore alternative fuels for refuse vehicles. EV charge points continue to be provided for new 'major' developments aided by new Building Regulations Approved Documents; West Sussex County Council, Adur and Worthing Councils, and all other West Sussex local planning authorities together with Connected Kerb formed a partnership to provide a chargepoint network across West Sussex. The partners are working together to install thousands of chargepoints across the county forming the West Sussex Chargepoint Network. WSCC parking standards sets increasing year on year targets for ev charge points at new developments.	development of alternative fuel, installing EV charge points on council land, in accordance with EV strategy. This also links to part of the West Sussex County Council EV Strategy to improve charging infrastructure.
5	Bus and Taxi Fleet Improvements	Promoting Low Emission Transport	Public Vehicle Procurement - Prioritising uptake of low emission vehicles	2023		ADC/WSCC/Sussex-air/Bus operators	ADC/WSCC/Sussex-air	Partially Funded	£100k - £500k	Implementation	Small impact upon NO_2 concentrations from measure individually, estimated to be less than 1µg/m^3 based upon a low to medium uptake.	Number of ultra-low emission busses and EV Taxis	Defra funded Sussex-air taxi fleet study has been completed, including a survey of taxi operators. Results identified key recommendations for growing confidence in EV uptake amongst taxi operators. See https://sussex-air.net/wp-content/uploads/2023/11/West-Sussex-taxi-and-private-hire-survey_Final-report_Oct-2023.pdf Bus operators in West Sussex continue to explore low emission fuel technologies in their fleets and local authorities are in dialogue with operators as plans develop, including consideration of any funding opportunities as they arise.	Collaboration with bus operators to introduce ultra-low emission vehicles into the bus fleet. Target use of ULEV into the problem areas. Review taxi EV charging provision, taxi rank locations and update licence fees to encourage EV uptake.
6	Public Transport Encouragement	Transport Planning and Infrastructure	Public transport improvements-interchanges stations and services	2023		WSCC/ADC/public transport operators	WSCC/ADC		£100k-£500k	Planning	Small impact upon NO_2 concentrations from measure individually, estimated to be less than 1µg/m^3 based upon a low to medium uptake.	Number of campaigns and use of public transport.	BSIP funding awarded for West Sussex included additional provision of real time passenger information screens at bus stops and some bus stop improvements in Adur, as well as junction traffic light priority signal upgrades in particular to support the Coastliner Route 700 service. Ongoing work with South East Communities Rail Partnership to promote use of the Sussex Coast Line. Bus operators in West Sussex continue to explore low emission fuel technologies in their fleets and local authorities are in dialogue with operators as plans develop, including	Improvements to public transport infrastructure, frequency, routes and incentivise usage, including rail travel services and information campaigns focusing on tourists to district. This also links to the West Sussex Bus Service Improvement Plan.

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													consideration of any funding opportunities as they arise.	
7	Domestic emissions reduction campaigns focused on $PM_{2.5}$	Public information	Other	2022	2025	ADC/WBC/Sussex-air	ADC/Sussex-air	Part funded	£10k-£50k	Implementation	$PM_{2.5}$ measure to raise public awareness	Number of Campaigns	Social media posts around Clean Air Day/Night	Includes consideration of Smoke Control Areas and domestic and commercial emissions reduction work.
8	Active Travel	Transport Planning and Infrastructure	Cycle Network	2023		Adur DC/WBC/WSCC/Sussex-air	Adur DC/ WSCC/Sussex-air	Partially Funded	£1-10M	Planning	Reduction in NO_2 concentrations and raises public awareness	Number of those using active travel. Number of those using cycle facilities and number of cycle routes	Development work continuing to develop major active travel schemes for the A259 Shoreham to Hove and for an east-west route through Lancing and Sompting in 2025. Upper Shoreham Road and Middle Road active travel/crossing improvement schemes delivered in 2025. WSCC published countywide Local Cycling & Walking Infrastructure Plan and updated Active Travel Strategy in 2024. Donkey Bike scheme continued across Adur DC and Worthing BC. Lancing Beach Green cycle path reroute delivered in 2025.	Improving cycle parking facilities, cycle and scooter rental schemes, signage and providing new cycle and pedestrianised routes in line with Adur and Worthing Local Cycling and Walking Infrastructure Plan.
9	Public Health Information based campaigns and ongoing monitoring	Public Information	Other	2023		Adur DC/Worthing BC/WSCC/Sussex-air	AdurDC/WSCC/Sussex-air	Partially Funded	£50-100k	Implementation	NO_2 measure to raise public awareness	Number of Campaigns	Sussex-air Alert. Service ceased due to low subscriber numbers vs cost of providing the service. The low subscriber numbers limited the effectiveness of the service to improve public health. In addition other alert services are available to more effectively deliver messaging. Sussex-air CleanBurn site promoted via Adur and Worthing's website; continuous NOx and $PM_{2.5}$ monitoring in Shoreham High St; NO_2 diffusion tubes across Adur. Continued to participate in Brighton's low cost sensor network with sensor in Shoreham High Street.	Ongoing funding will be key
10	Transport Management/Road/Junction improvements and Anti Idling	Traffic Management	UTC, Congestion management, traffic reduction	2023	2025	WSCC/ADC/WBC	To be determined - developer contributions	Partially Funded	£1m - £10m	Planning	Reduction in NO_2 concentrations	Reduction in NO_2 Emissions	Anti idling signs placed at known hotspots. Feasibility work undertaken through Shoreham Town Centre Study 2014. Scheme options for Norfolk Bridge junction were reviewed in 2022 given challenges of limited highway space. Engagement with Members and	Improvements to A259/A283 Norfolk Bridge roundabout. Traffic light/pelican crossing optimisation/MOVA traffic control. Review of Shoreham parking

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													stakeholders has been unable to identify a scheme to date that is supported. Engagement undertaken in 2023 to understand views on potential Controlled Parking Zones (CPZs) in Shoreham Town Centre and Fishersgate, however as a result of the lack of support expressed, it was announced in 2024 that these CPZ schemes would not be taken forward.	and parking restrictions. Scheduling business delivery time away from peak hours, waiting and loading restrictions/ keep clear zones. Level crossings Review of bus stops within High Street, traffic signage, routing and car park signposting.

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WORTHING														
Priority Air Quality Actions														
1	Seek improvements to A27 in and around the AQMA	Traffic Management	Strategic Highway Improvements	2024	2029	National Highways, West Sussex County Council, Worthing Borough Council	National Highways, WSCC, WBC	Not Funded	£10m/ > £10m	Planning	Significantly reduce levels of NO_2 and $PM_{2.5}$ in and around the AQMA	Reduction in measured levels of NO_2 and $PM_{2.5}$; Reduction in number of vehicles using A27	Initial discussions through the AQAP Steering Group. No funding presently.	Funding required (note, measure was introduced in the old AQAP, the 2024 introduction year refers to the new AQAP)
2	Improved provision of local air quality information and community participation to engage residents in behaviour change.	Public Information	Other	2024	2029	West Sussex County Council, Worthing Borough Council	WBC, developer contributions	Partially Funded	< £10k	Planning	Reduce levels of NO_2 and $PM_{2.5}$ emitted by private vehicles especially diesel vehicles in and around the AQMA and Borough	Reduction in measured levels of NO_2 and $PM_{2.5}$; number of times website accessed; number of activity participants	Improvements to Sussex-air website; Engage 'citizen scientists' to assist with messaging and activities e.g. monitoring?	Further funding/staff time required.
3	Improve the provision and quality of Public Transport options in and around the AQMA (A27)	Alternatives to private vehicle use	Other	2019	2029	West Sussex County Council, Worthing Borough Council, Local bus operators, Southern Rail	Department For Transport, WSCC/Public Transport Operators	Partially funded	£500k	Implementation	Reduced NO_2 and PM emissions from mode shift to public transport combined with cleaner public transport fleets	Passenger numbers on public transport/WSCC Traffic counts	Construction work on improvements at Worthing Station Railway Approach and Cross Street completed in 2025 to benefit pedestrians, cyclists, and train, bus and taxi users. " BSIP funding awarded for West Sussex included additional provision of real time passenger information screens at bus stops and some bus stop improvements in Worthing, as well as junction traffic light priority signal upgrades in particular to support	Limits to the funding available for improvements. Further funding required.

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WORTHING														
													the Coastliner Route 700 service. Ongoing work with South East Communities Rail Partnership to promote use of the Sussex Coast Line. Bus operators in West Sussex continue to explore low emission fuel technologies in their fleets and local authorities are in dialogue with operators as plans develop, including consideration of any funding opportunities as they arise	
1	A27 Highway Improvements	Traffic Management	Strategic highway improvements	2024	N/A	National Highways (NH)	NH	Not Funded	> £10 million	Aborted	High	Reduction in levels of NO_2	National Highways have been working with key stakeholders to identify a package of potential improvements to meet the revised objectives in the Governments Road Investment Strategy 3 (RIS 3): 2025 - 2030, to improve capacity and flow of traffic on the A27from Worthing to Lancing. A public consultation was held in 2023 and this did not identify a solution that generated broad support. The scheme was cancelled by the Government in summer 2025.	The 2023 proposed scheme was cancelled by the Government in summer 2025. WBC will be seeking improvements through discussions with National Highways and WSCC.
2	Cut Engine, Cut PollutionSigns	Traffic Management	Anti-idling enforcement	2024	2025	NH/WSCC	Worthing BC/NH/WSCC	Funded	< £10k	Implementationon	Low	Local AQ monitoring/reduction in NO_2	‘Cut Engine, Cut pollution’ signs at certain junctions in the AQMA A27 to help encourage anti-idling behaviours. Regular reviews carried out by WBC.	Funded by Worthing BC. Sussex-air funded additional signs at level crossings. For A27 and feeder roads Highway 'clutter' is a concern. Some research suggests signs have limited impact.
3	Embed Air Quality Emissions Mitigation Planning Guidancefor Sussex into the planning	Policy Guidance andDevelopment Control	Air Quality Planning andPolicy Guidance	2024	2025	Worthing BC/WSCC	Worthing BC/WSCC	Funded	< £10k	Implementation	Low	LE mitigation secured in developments	Sussex-air Guidance last updated in April 2021. The guidance is signposted within the Worthing Local Plan. Guidance and appropriate mitigation is flagged as a requirement of the	Developing the Guidance into a Supplementary Planning Document would be considered if deemed necessary (but not at this stage)

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WORTHING														
	process/planning policies												development control process. Emission mitigation assessments are required for major developments to ensure mitigation is provided	Update to Guidance delayed and now due 2026
4	EV's and infrastructure	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2016	2025	Worthing BC/WSCC	Worthing BC/WSCC/NH	Partially Funded		Implementation	Low/Medium	EV charge points continue to be provided for new 'major' developments aided by new Building Regulations Approved Documents ; West Sussex County Council, Adur and Worthing	Worthing BC and all other West Sussex local planning authorities together with Connected Kerb have formed a partnership to provide a new chargepoint network across West Sussex. The partners are working together to install thousands of chargepoints across the county forming the West Sussex Chargepoint Network. West Sussex County Council currently installing electric vehicle charging points on the highway at various locations in Worthing. WSCC parking standards sets increasing year on year targets for ev charge points at new developments.	Focus is to increase the number of eV's. Discussions continue successfully with developers as part of AQ mitigation packages, aided by new Building Regulations Approved Document. Promoting an accelerated move to more EV vehicles in the local fleet will help to target the key source of emissions in the AQMA, namely older diesel vehicles.
5	Worthing Car Club	Alternatives to private vehicle use	Car Clubs	2015	2029	Worthing BC/ADC	Worthing BC/Developer Contributions	Partially Funded	£50k - £100k	Implementation on	Low	Number of people using the service/ Number of vehicles	The 2 car club bays in the High St surface car park, Worthing have been removed as a result of the loss of the car park to redevelopment. Car club providers continue discussions with developers regarding specific development sites.	V. small reduction in AQMA, however larger reductions anticipated elsewhere (e.g. town centre where new developments are more likely to be car free). Car clubs embedded in planned new developments.
6	Public transport improvement	Transport Planning and Infrastructure	Public transport improvements- interchanges stations and services	2010	2025	WSCC	WSCC/DFT/OLEV	Partially Funded		Implementation	Low	Journey time and passenger number improvements	Construction work on improvements at Worthing Station Railway Approach and Cross Street completed in 2025 to benefit pedestrians, cyclists, and train, bus and taxi users. BSIP funding awarded for West Sussex included additional provision of real time	Subject to appropriate funding being made available.

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WORTHING														
													passenger information screens at bus stops and some bus stop improvements in Worthing, as well as junction traffic light priority signal upgrades in particular to support the Coastliner Route 700 service. Ongoing work with South East Communities Rail Partnership to promote use of the Sussex Coast Line. Bus operators in West Sussex continue to explore low emission fuel technologies in their fleets and local authorities are in dialogue with operators as plans develop, including consideration of any funding opportunities as they arise	
7	WBC and WSCC Staff Travel Planning	Promoting Travel Alternatives	Workplace Travel Planning	2021		Worthing BC/ ADC/ WSCC	Worthing BC/ ADC/ WSCC	Partially Funded		Implementation	Low	Staff travel surveys reduced commuting and business travel by car	WBC Staff Travel Plan updated in 2021. Hybrid models for mixed working from home/office is the business model. WSCC EASIT scheme for staff and local businesses continues.	
8	Improve Emissions from Council's Vehicle fleet	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2024	2030	Worthing BC/ADC/ WSCC	Worthing BC/ADC/WSCC	Partially Funded	£1 million - £10 million	Planning	Low	No. of vehicles replaced with better Euro standard models	Programme of fleet replacement with low emission vehicles considered as and when vehicles are due for replacement. A&W staff pool cars are hybrids. Exploring alternative fuels for larger vehicles including the fleet of refuse vehicles as part of the decarbonisation strategy to replace the existing diesel fleet. EV's now part of WSCC pool car fleet.	Barrier: Suitable vehicles availability and affordability (e.g. HGV's/refuse vehicles).
9	Increase availability of AQ	Public Information	Via the Internet	2023	2026	Worthing BC	Worthing BC	Funded	< £10k	Implementation	Low	Reduction in levels of NO_2/No.	Public Health pages on Sussex-air website.	New more informative pages were added to the Sussex-air

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WORTHING														
	information in relation to impacts on Public Health											of hits on AQ pages		website to promote good practice, low pollution transport alternatives, etc. Measure success of AQAP/levels in AQMA. Assist with $PM_{2.5}$ reduction approach.
10	Promotion of Sussex Air Quality Alert Service	Public Information	Via the Internet	2014	2026	Worthing BC	Worthing BC/ WSCC	Partially Funded	£10k - 50k	Implementation	Low	Annual increase in subscriber numbers	Liaison with WSCC Public Health Team who have supported the promotion of alert services. Sussex-air website	Service was promoted throughout 2024 but ceased operation in 2025 due to low subscriber numbers vs cost of providing the service.. In addition other alert services are available to more effectively deliver messaging. Action to be deleted
11	Re- assess traffic light sequencing in AQMA	Traffic Management	UTC, Congestion management, traffic reduction	2010		NH/WSCC	HE/WSCC	Funded		Implementation	Low	Reduction in levels of NO_2	Ongoing optimisation by NH/WSCC.	
12	Safe Cycling and Walking Routes	Transport Planning and Infrastructure	Cycle network	2010	2030	NH/WSCC	NH/WSCC	Funded	£1 million - £10 million	Implementation	Low	Length of new cycle routes provided	The Adur and Worthing Local Cycling and Walking Infrastructure Plan (LCWIP) was adopted in summer 2020. This sets out a series of cycling and walking routes intended to be supported by government funding or contributions from strategic developments across the Borough. Throughout 2022, construction of the Findon Valley to Findon village cycle path took place, to connect cycle route from the A24 Findon village to Worthing through the AQMA (see entry 25). Development work took place in 2024 for a contraflow cycle lane on Cross Street Worthing to improve connectivity to Worthing Railway Station delivered in early 2025. WSCC published countywide Local Cycling & Walking Infrastructure Plan and updated Active Travel Strategy in 2024.	There already exist cycle paths segregated from pedestrians in and around the Grove Lodge AQMA.

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WORTHING														
13	Travel plans for significant /major developments	Promoting Travel Alternatives	Other	2023	2026	Worthing BC/WSCC	Developer Contribution	Partially Funded	£500k - £1 million	Planning/ Implementation	Low	Number of plans delivered	The Worthing Local Plan was formally adopted by the Council in 2023.	Plans continue to be secured as and when developments come forward. The Local Plan adds weight to the requirement for travel plans.
14	Car Sharing	Alternatives to private vehicle use	Car & lift sharing schemes	2015		WSCC	WSCC	Funded		Implementation	Low	Website hits/ journeys planned/Number of registrants/take -up of initiatives	Car share website www.westsussexcarshare.com	Focus on promoting sustainable travel for work. Link on Worthing BC website.
15	Cycling & Walking promotion	Promoting Travel Alternatives	Promotion of cycling	2015		Worthing BC/WSCC	WSCC, Developer Contributions, Defra funding and WBC funding	Partially Funded		Implementation	Low	Automatic cycle counters and travel surveys	WSCC Bikeability has been engaging with primary and secondary schools across Worthing to offer cycle training. The Sussex Air/ Sustrans led schools and community project ran from 2022 working with schools and communities to raise awareness of air pollution. Funding ended in 2025. Schools included workshops at Thomas a Becket Junior School, Bohunt Worthing, Durrington High School, Worthing College and Davison CoE High School for Girls. Donkey Bike scheme continued across Worthing	Focus on reducing traffic congestion and promoting sustainable travel for trips to and from school. Subject to available funding.
16	Increase and improve availability of WBC Air Quality Monitoring results	Public Information	Via the Internet	2015	2026	Worthing BC	Worthing BC	Funded	£10k - 50k	Implementation	Low	Reduction in levels of NO_2/No. of hits on AQ pages	Worthing AURN Grove Lodge Monitoring Station cabinet replaced in early 2023. AURN urban background site added at Ten Acres, Worthing with results available on UK Air. All continuous monitoring results available via UK Air (for AURN sites) and the Sussex- air website, with links on the Council website. Diffusion tube data sets added to Sussex-air website annually.	Revision of Worthing BC and Sussex-air webpages 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 Strategy[14], 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.

Adur District and Worthing Borough Councils is taking the following measures to address $PM_{2.5}$.

The Councils continue to consider the declaration of Smoke Control Areas (SCA). Our Worthing Air Quality Action Plan includes a commitment to explore domestic solid fuel burning policy options to help to reduce domestic emissions. The pending Adur Air Quality Strategy includes similar.

- Both Adur District and Worthing Borough Council monitor levels of $PM_{2.5}$ through the automatic monitoring sites in Shoreham High Street (site ref. AD1) and the AURN affiliated continuous monitoring site at A27 Grove Lodge, Worthing (Site ref. WT2). In addition an AURN urban background site at Worthing East (Ten Acres) measures PM_{10} and $PM_{2.5}$, although the site is not local authority controlled. All monitoring sites will assist us with assessing $PM_{2.5}$ and developing strategies to address particulates.

Since October 2024 we have been following the interim $PM_{2.5}$ planning guidance issued by Defra[15]. This sets out requirements that should be applied in the design process and documented within planning applications. The two key questions asked for major applications are:

a. How has exposure to $PM_{2.5}$ been considered when selecting the development site?

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

[15] $PM_{2.5}$ Targets: Interim Planning Guidance, 4 October 2024 available at https://uk-air.defra.gov.uk/pm25targets/planning

b. What actions and/or mitigations have been considered to reduce $PM_{2.5}$ exposure for development users and nearby receptors (houses, hospitals, schools etc.) and to reduce emissions of $PM_{2.5}$ and its precursors?

- Work carried out by Public Health England as part of the Public Health Outcomes Framework (PHOF) shows that the mortality associated with particulate air pollution within Adur District is 4.9% and Worthing Borough is 4.8%. This information is available from the following web link: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework . The calculated mortality is lower than both the south east of England (5.1%) and for England (5.3 %).

ADUR

Indicator	Age	Sex	Period	Value	Value (Region)	Value (England)	Unit	Recent trend	Change from previous
D01 - Air pollution: estimated fraction of mortality attributable to particulate air pollution	30+ yrs	Persons	2024	4.9	5.1	5.3	%	-	-

WORTHING

Indicator	Age	Sex	Period	Value	Value (Region)	Value (England)	Unit	Recent trend	Change from previous
D01 - Air pollution: estimated fraction of mortality attributable to particulate air pollution	30+ yrs	Persons	2024	4.8	5.1	5.3	%	-	-

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

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

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Adur District and Worthing Borough Councils undertook automatic (continuous) monitoring at two sites during 2025. 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 Sussex air website presents automatic monitoring results for Adur and Worthing, 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

Adur District Council undertook non-automatic (i.e. passive) monitoring of NO_2 at 26 locations during 2025.

Worthing Borough Council undertook non- automatic monitoring of NO_2 at 28 locations during 2025.

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

We review our sites at the end of each calendar year to both ensure we have a decent geographical spread across both areas and measure in areas being, or likely to be, developed. We consider removing sites that have returned consistently low measurements.

In **Adur** Site *S51* Sussex Pad, Lancing was abandoned due to A27 road realignment works associated with the New Salts Farm residential development. We lost 7 months of data from July 2024 to February 2025 because of regular changes to the road layout.

We replaced it with the nearby site *S54* in Coombes Road, Lancing, to monitor effects of the road changes.

In **Worthing** site *N72* New Street was removed after 4 years of annual means at 12µg/m^3 or less which is well below the 40µg/m^3 annual mean objective.

N73 Ardingly Drive was added to provide us with more information on levels at this edge of Borough location close to sites under development pressure.

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

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2025 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Table A.5 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200µg/m^3, not to be exceeded more than 18 times per year.

A. Adur

Automatic Monitoring

The measured annual mean at the continuous monitoring site in Shoreham High Street was 18.4µg/m^3. This was an increase of 0.6 µg/m^3 over 2024 levels which is surprising given successive previous years showed a decrease. Whilst still well below the objective of 40µg/m^3 we will keep a close eye on the trend here. Whilst there are numerous major developments in and around the area, some of which have now been occupied, traffic levels reduced in 2025. So the increase in the annual mean cannot be attributed to increased vehicle numbers, however it's possible that vehicles were idling for longer or the traffic mix has changed. This is something we will explore further with WSCC.

There were no recorded exceedances of the one hour mean objective of 200µg/m^3.

Non-Automatic Monitoring

28 diffusion tubes were used at 26 locations during 2025. Of these 15 showed increases in the measured annual means when compared to 2024 levels, ranging from 0.3µg/m^3 (S36/S45) to 2.1µg/m^3 (S13).

Only S26 Loose Lane Sompting required annualisation as data capture was below 75%.

No monitoring sites exceeded the annual mean objective of 40µg/m^3 during 2024.

Shoreham sites in and around the old AQMA1

S17/18/19 are collocated tubes alongside the continuous analyser in the High Street. These recorded an average of 22µg/m^3, a 0.3µg/m^3 reduction on 2024 levels. This drops to 18µg/m^3 at the nearest façade. The average is nearly 4µg/m^3 above the continuous monitoring result at this location. The average recorded by the low-cost sensor co-located at this site, recorded 24µg/m3. The differences are consistent with those recorded in 2024 and likely to be the result of the lower accuracy of both diffusion tube and low-cost sensor monitoring.

Tubes in West Street Shoreham, S46 and S47, recorded a decrease of 1.1µg/m^3 and an increase of 1.1µg/m^3. Both were well below the objective at 16.6µg/m^3 and 15.6µg/m^3

respectively. West Street is regularly used by vehicles trying to avoid congestion along the High Street (A259) and frequently a subject of concern from residents.

Site S36 Victoria Road Footpath showed a small increase of 0.3µg/m^3 to 17.5µg/m^3.

Interestingly site S37 Humphrey's Gap, immediately adjacent to several large development sites, showed a decrease of 3.5µg/m^3 to 22.8µg/m^3. This could be due to emissions from non-road plant and equipment and vehicles associated with the Free Wharf development reducing as the build neared completion. The old Frosts car site is close by and currently the subject of development, so this is a monitoring site we need to keep an eye on.

The level at S50 (a facade in the High Street) decreased by 2.9 µg/m^3 to 17.4µg/m^3.

S45 Dolphin Mews, adjacent to a level crossing where vehicles often queue and idle for prolonged periods, increased by 0.3µg/m^3 to 15.1µg/m^3.

Traffic data for 2025 measured via the automatic traffic counter (ATC) in Shoreham High Street was 14,993 (AADT), a reduction of 4.1% over 2024 levels.

Southwick in what was AQMA2

Site S8 remained virtually unchanged at 20µg/m^3 whilst S9 increased by 1.2µg/m^3 to 24.1µg/m^3. Both are well below the annual mean objective and, being roadside locations, levels drop further when predicted back to the nearest receptors which are 4m and 2m away respectively.

The nearby automatic traffic counter recorded a 1% decrease in AADT.

Lancing

Site S48 Grinstead Lane has returned fluctuating levels over recent years. In 2024 the level decreased and it fell again in 2025 by 0.2µg/m^3 to 24.5µg/m^3. This is its third consecutive annual drop.

Site S52 was erected in Grinstead Lane close to the roundabout in 2022, in response to our concerns about increasing levels of NO_2 in this area. Levels increased by 1µg/m^3 to 31.6µg/m^3, following two years of falling levels. Levels are still below the 35.7µg/m^3 measured in 2022. This is a kerbside site with the nearest receptors 17.5m away, so when levels are predicted back they drop to 21.2µg/m^3.

Site S44 Upper Brighton Road increased by 0.6µg/m^3 to 29.6µg/m^3. This site is adjacent to the eastbound A27 dual carriageway with the closest receptor just over 5m away where the predicted level drops to 25.4µg/m^3.

Site S54 Coombes Road, Lancing was erected to replace *S51* Sussex Pad, as a result of A27 road realignment works. The annual mean here was 12.1µg/m$^{3.}$ This is significantly lower than the 21µg/m^3 recorded at the previous site in 2024, but the new site is further away from the A27 so lower levels are to be expected.

Site S25 Mash Barn Lane showed another fall, this time -2.9µg/m^3 to 20.7µg/m^3.

Site S53 Abinger Lodge, a roadside site erected in 2023, showed a level of 12µg/m^3, a small increase of 0.4µg/m^3.

We will continue to keep an eye on the A27 in Lancing, particularly around the Grinstead Lane roundabout, with large developments taking place nearby.

Worthing

Automatic Monitoring

The annual mean recorded at the continuous monitoring site WT2 Grove Lodge in AQMA No.2 was 19.6µg/m^3 (data capture 97.7%). This is a fall of 2ug/m^3 from the level recorded in 2024 and below the national objective of 40µg/m^3.

There were no exceedances of the one hour mean objective of 200µg/m^3.

The automatic monitoring site is an AURN affiliated site located adjacent to the A27, a single lane strategic trunk route through Worthing with slow moving or stationary traffic for prolonged periods. Annual average NO_2 peaked at 51.4µg/m^3 in 2014, decreased in 2015 and then increased again in 2016 to 48µg/m^3. Since then, levels have been steadily falling roughly 2ug/m^3 every year. The nearest relevant receptor to this automatic monitoring site (a residential facade) is 18m away, meaning levels at the façade reduce.

Unfortunately despite repeated requests, we do not have traffic data from National Highways for 2025, so we are unable to comment on changes in flows since 2024.

Non-Automatic Monitoring

28 sites were used for 30 diffusion tubes during 2025. Of these, 13 sites decreased from 2024 levels, 13 showed small increases and one showed no change.

The largest increase was 2.1µg/m^3 at site N24 Upper Brighton Road, which conversely showed the biggest fall in 2024. Interestingly the largest decrease was -5.5µg/m^3 at Site N30A Grove Lodge Cottages which until now has consistently been above 40µg/m^3. Both sites are within the AQMA.

For the first time no monitoring site exceeded the annual mean objective of 40µg/m^3.

In and around the AQMA

N30A Grove Lodge Cottages showed a reduction of over 5µg/m^3 to 36.9µg/m^3. This site was the only one consistently returning levels above the annual mean objective. This is the first time levels below 40µg/m^3 have been recorded. Whilst it remains the highest monitoring result of all our sites - and still within 10% of the annual mean objective - it is encouraging that levels have fallen here. The monitoring site is adjacent to the westbound carriageway of the A27 with the nearest residential façade just 2m away, behind a high wall. So the measured level only decreases slightly when predicted back, to 36.3µg/m^3.

Diffusion Tubes N44A/B/C are collocated with the continuous monitoring site WT2. When averaged they recorded a reduction 2.0µg/m^3 to 23.2µg/m^3. This reduces to 17.1µg/m^3 when predicted back to the nearest receptor. For comparison, we measured 15.3µg/m^3 at a close residential façade (site N43), which demonstrates that any predicted level must be treated with caution as it is more than 20m from the kerb. The difference in diffusion tube levels when compared to the automatic analyser will in part be the result of the lower accuracy of diffusion tube monitoring.

Site N24 close to Lyons Farm at the eastern end of the AQMA showed an increase of 2.1µg/m^3 to 25.8µg/m^3. It could be attributed to more local traffic as a result of a new supermarket opening in the retail park, so whilst still well below the 40µg/m^3 objective we will continue to monitor here as the increase is unusual.

Site N29 Downlands Parade, also close to Lyons Farm, showed a small decrease of 01.1g/m^3 to 22.2µg/m^3.

Of the other monitoring sites within the AQMA, the majority showed small decreases in measured concentrations ranging from -0.1 to -2.0µg/m^3 (N5, N31, N43, N53 and N66). The other sites (N21, N25 and N39) showed small increases ranging from 0.1 to 0.8µg/m^3 but remained well below the 40µg/m^3 objective.

Other Sites

N57 Lyndhurst Road decreased by 2.2 to 17.5µg/m^3, well below the annual mean objective. This is adjacent to the gas works site where construction of over 200 apartments in blocks of up to 8 storeys continues. We will continue to closely monitor this site and in particular any changes after completion of the development.

N66 Sompting Lane, erected in 2020 because of traffic forming long queues to access the A27, showed another decrease of 0.7µg/m^3 to 22.3µg/m^3 (it decreased in 2024 too).

Concentrations at site N1C in the busy High Street, close to the multi storey car park, Urban Heat Network under development during 2025 and Steyne Gardens where a number of large-scale events are held, increased very slightly by 0.1µg/m^3 to 19.6µg/m^3.

Site N54 on Brighton Road (A259) near Splash Point, showed an increase of 1.4µg/m^3 to 19.8µg/m^3. This could be a result of numerous roadworks in the area during 2025.

Site N71 King Street, added in 2021 following concerns raised by some about air pollution in the area, showed a small increase of 0.6 to 11.7µg/m^3, still well below the 40 µg/m^3 objective.

Site N73 added in 2025 to measure levels in the far west of the Borough, returned an annual mean of 18.8µg/m^3.

Five-year trend graphs are included in Appendix A.

3.2.2 Particulate Matter (PM_{10})

The Councils do not routinely monitor for PM_{10} concentrations in Worthing. However, the AURN background site at Worthing East Ten Acres (commissioned in August 2024 and operated by the Environment Agency), recorded an annual mean for 2025 of 16.5ug/m^3, well below the 40ug/m^3 objective. This is the first full year of results from that site.

We operate a low-cost sensor as part of the Brighton network in Shoreham High Street (Adur), collocated with our continuous analyser. Measured annual mean PM_{10} concentrations for 2025 were 12ug/m^3, well below the 40ug/m^3 objective.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.6 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years.

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 set long-term targets as follows:

- Annual Mean Concentration Target ('concentration target') – a target of 10µg m^{-3} to be met across England by 2040.

- Population Exposure Reduction Target ('exposure reduction target') – a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

There is a legal requirement for the targets to be achievable and also objectively measurable.

Adur

We have been monitoring $PM_{2.5}$ in Shoreham High Street since August 2021. The measured validated concentration in 2025 was 9.8µg/m^3, an increase of 1.4µg/m^3 over 2024. This is only just below the 'concentration target' of 10µg/m^3 and the World Health Organisation (WHO) annual mean guideline limit of 10µg/m^3.

The collocated low-cost sensor (part of the Brighton network) recorded an annual mean of 8.2µg/m^3.

Worthing

We have been monitoring levels of $PM_{2.5}$ at Worthing Grove Lodge for 8 years. An AURN site, the measured ratified concentration for 2025 was 8.9µg/m^3 an increase of 1.2µg/m^3 over 2024. This is only just below the 'concentration target' of 10µg/m^3 and the World Health Organisation (WHO) annual mean guideline limit of 10µg/m^3.

The concentration recorded at the AURN Ten Acres background site was 9.8µg/m^3, also an increase of 1.2µg/m^3.

The increases in $PM_{2.5}$ across both areas is a concern and we suspect this may be a result of increased domestic burning in wood burning stoves. This is why, in accordance with our AQAP (Worthing) and AQS (Adur), we are considering smoke control areas in Adur and Worthing.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (1,2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
AD1	High Street, Shoreham	Kerbside	521399	105039	NO_2, $PM_{2.5}$	No	N/A	Chemiluminescent; FDMS	4.0	1.6	2.0
WT2	Grove Lodge, Worthing	Roadside	514184	104963	NO_2, $PM_{2.5}$	Yes	Worthing AQMA No.2	Chemiluminescent	18.3	2.9	1.8

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)
ADUR										
S2	Old Mill Close Fishersgate	Roadside	525330	105085	NO_2	No	3.5	1.5	No	2.5

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)
S3	St. Aubyns Crescent Fishersgate	Urban Background	525562	105313	NO_2	No	5.1	2.4	No	2.5
S7	Queens Road Southwick	Urban Background	524139	106321	NO_2	No	3.0	2.5	No	2.5
S8	Underdown Road Southwick	Roadside	524018	106070	NO_2	No	4.3	2.3	No	2.5
S9	Old Shoreham Road Southwick	Roadside	523784	106081	NO_2	No	1.6	2.8	No	2.3
S10	Holmbush Roundabout Shoreham	Roadside	523343	106111	NO_2	No	27.0	1.7	No	2.8
S11	Lancing Manor Lancing	Roadside	518820	105584	NO_2	No	14.8	2.0	No	2.8
S12	Boundstone Lane Lancing	Roadside	517731	105505	NO_2	No	8.0	1.8	No	2.8
S13	Upper Brighton Road Sompting	Roadside	517291	105550	NO_2	No	8.6	4.6	No	2.3
S14	West Street Sompting	Urban Background	516057	105190	NO_2	No	3.6	1.2	No	2.0
S17, S18, S19	High Street AQMS 3 Shoreham	Kerbside	521400	105040	NO_2	No	5.0	0.9	Yes	2.8
S25	Mash Barn Lane Lancing	Roadside	519117	105710	NO_2	No	N/A	6.0	No	2.5
S26	Loose Lane Sompting	Suburban	516536	104783	NO_2	No	5.0	0.8	No	2.5

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)
S36	Victoria Road Footpath Shoreham	Roadside	521282	105254	NO_2	No	5.8	1.9	No	2.5
S37	Humphrey's Gap Shoreham	Roadside	522103	105126	NO_2	No	0.5	1.7	No	2.8
S39	Brighton Road Kingston	Kerbside	523329	104960	NO_2	No	7.0	1.2	No	2.5
S43	Brunswick Road Shoreham	Roadside	521733	105251	NO_2	No	0.0	2.7	No	2.8
S44	Upper Brighton Road Lancing	Roadside	518494	105464	NO_2	No	5.4	2.0	No	2.0
S45	Dolphin Mews Shoreham	Roadside	522300	105258	NO_2	No	0.0	4.7	No	2.8
S46	West Street 1 Shoreham	Roadside	521363	105082	NO_2	No	0.0	1.3	No	2.5
S47	West Street 2 Shoreham	Roadside	521375	105101	NO_2	No	0.0	1.3	No	2.5
S48	Grinstead Lane Lancing	Roadside	518590	105463	NO_2	No	4.0	3.3	No	2.5
S50	High Street Shoreham	Roadside	521478	105002	NO_2	No	0.0	5.2	No	2.3
S52	Grinstead Lane Roundabout Lancing	Kerbside	518560	105460	NO_2	No	17.5	1.8	No	2.5
S53	Abinger Lodge (#439) Lancing	Roadside	520196	104350	NO_2	No	7.0	2.5	No	2.5

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)
S54	Coombes Road Lancing	Roadside	520002	106083	NO_2	No	6.0	1.0	No	2.3
WORTHING										
4N	Heene Way (UK02)	Urban Background	513609	102556	NO_2	No	5.3	1.7	No	1.5
5N	Cleveland Road (UK01)	Urban Background	512701	105562	NO_2	No	6.2	2.5	No	2.0
N1C	High Street East	Urban Centre	515114	102670	NO_2	No	0.0	3.3	No	2.0
N5	First Avenue	Roadside	514495	105020	NO_2	Worthing AQMA No.2	15.2	2.2	No	1.5
N8	Littlehampton Road	Roadside	513236	104651	NO_2	No	14.1	1.5	No	3.5
N11	Dawes Close	Urban Background	515812	103309	NO_2	No	8.4	1.4	No	1.5
N21	Forest Lane	Suburban	510611	105595	NO_2	Worthing AQMA No.2	14.5	60.5	No	2.0
N22	Falmer Close, C-Dust monitor	Urban Background	511010	102226	NO_2	No	14.6	2.2	No	2.0
N24	152 Upper Brighton Road	Roadside	515151	105109	NO_2	No	0.0	8.0	No	1.5
N25	Warren Court	Suburban	513845	105191	NO_2	Worthing AQMA No.2	0.0	17.3	No	2.0
N28	Chapel Road / Teville Road	Roadside	514740	103173	NO_2	No	1.6	3.0	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
N29	Downlands Parade	Roadside	515014	105099	NO_2	Worthing AQMA No.2	0.5	6.5	No	2.5
N30A	Grove Lodge Cottages	Roadside	514183	104948	NO_2	Worthing AQMA No.2	0.2	2.2	No	2.5
N31	South Farm Road, Roundabout	Kerbside	514317	103329	NO_2	Worthing AQMA No.2	4.0	0.9	No	3.0
N39	SW of Roundabout, Grove lodge	Roadside	514088	104906	NO_2	Worthing AQMA No.2	47.8	2.2	No	2.5
N42	Norfolk House, 122 Chapel Road	Roadside	514742	103234	NO_2	No	0.0	3.4	No	2.5
N43	23 Upper Brighton Road	Suburban	514199	104982	NO_2	Worthing AQMA No.2	0.0	19.2	No	2.0
N44A, N44B, N44C	AQMS O/S 21 Upper Brighton Road	Roadside	514184	104963	NO_2	Worthing AQMA No.2	18.4	2.8	Yes	1.5
N48	Shaftesbury Avenue	Roadside	512063	103385	NO_2	No	14.8	2.2	No	2.0
N52	Newland Road, outside 63	Kerbside	514973	103335	NO_2	No	4.5	0.4	No	2.0
N53	Offington Corner	Roadside	513278	105623	NO_2	Worthing AQMA No.2	20.5	6.0	No	2.0
N54	Aquarena	Roadside	515595	102725	NO_2	No	30.2	3.7	No	3.0
N57	Lyndhurst Road	Roadside	515114	102975	NO_2	No	0.0	3.5	No	2.5

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)
N64	South Street, outside Starbucks	Urban Centre	514946	102541	NO_2	No	2.8	2.4	No	2.5
N65	Teville Road (opposite Unleashed)	Kerbside	514543	103220	NO_2	No	4.7	0.8	No	2.5
N66	Sompting Road	Roadside	515067	105082	NO_2	Worthing AQMA No.2	3.7	4.7	No	2.5
N71	King Street	Roadside	514548	103843	NO_2	No	4.0	1.8	No	2.5
N73	Ardingly Drive	Roadside	510598	103012	NO_2	No	21.8	1.0	No	2.3

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
AD1	521399	105039	Kerbside	99.9	99.9	19.6	20.3	21.0	17.8	18.4
WT2	514184	104963	Roadside	97.7	97.7	27.6	25.4	23.4	21.6	19.6

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

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

☒ **Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2025.**

Notes:

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

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

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

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

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

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

Table A.4 – Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
ADUR										
S2	525330	105085	Roadside	100.0	100.0	18.8	19.8	18.1	16.6	17.3
S3	525562	105313	Urban Background	100.0	100.0	14.4	14.3	13.1	12.6	13.3
S7	524139	106321	Urban Background	100.0	100.0	11.7	11.7	10.7	9.4	9.9
S8	524018	106070	Roadside	100.0	100.0	22.9	23.2	22.9	20.1	20.0
S9	523784	106081	Roadside	100.0	100.0	26.2	25.4	23.6	22.8	24.1
S10	523343	106111	Roadside	84.7	84.7	20.1	20.3	18.0	16.9	17.9
S11	518820	105584	Roadside	89.9	89.9	25.7	26.0	25.2	23.1	22.5
S12	517731	105505	Roadside	100.0	100.0	20.8	22.2	21.6	20.3	21.0
S13	517291	105550	Roadside	100.0	100.0	28.4	28.7	27.7	24.7	26.8
S14	516057	105190	Urban Background	100.0	100.0	21.2	18.4	18.1	17.9	16.0
S17, S18, S19	521400	105040	Kerbside	100.0	100.0	24.8	24.2	23.3	22.3	22.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
S25	519117	105710	Roadside	100.0	100.0	27.8	25.7	24.4	23.6	20.7
S26	516536	104783	Suburban	65.8	65.8	13.3	12.0	11.7	10.5	11.9
S36	521282	105254	Roadside	91.8	91.8	19.4	18.6	17.8	17.2	17.5
S37	522103	105126	Roadside	100.0	100.0	23.8	24.9	23.4	26.3	22.8
S39	523329	104960	Kerbside	89.9	89.9	17.4	18.1	17.2	15.9	16.8
S43	521733	105251	Roadside	100.0	100.0	18.4	17.1	16.7	15.8	15.2
S44	518494	105464	Roadside	100.0	100.0	31.5	33.6	31.8	29.0	29.6
S45	522300	105258	Roadside	100.0	100.0	17.2	16.4	14.6	14.9	15.1
S46	521363	105082	Roadside	100.0	100.0	18.8	18.8	18.6	17.7	16.6
S47	521375	105101	Roadside	92.6	92.6	16.8	16.9	16.0	14.6	15.6
S48	518590	105463	Roadside	100.0	100.0	26.8	30.0	27.5	24.7	24.5
S50	521478	105002	Roadside	82.5	82.5	22.2	22.8	20.5	20.3	17.4
S52	518560	105460	Kerbside	100.0	100.0		35.7	35.2	30.5	31.6

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
S53	520196	104350	Roadside	100.0	100.0			13.3	11.6	12.0
S54	520002	106083	Roadside	100.0	92.3					12.1
WORTHING										
4N	513609	102556	Urban Background	100.0	100.0	10.2	11.1	9.5	9.3	9.3
5N	512701	105562	Urban Background	83.1	83.1	12.5	12.1	11.2	10.4	9.7
N1C	515114	102670	Urban Centre	100.0	100.0	22.2	23.5	21.4	19.5	19.6
N5	514495	105020	Roadside	90.3	90.3	23.0	21.5	21.2	20.0	18.2
N8	513236	104651	Roadside	65.2	65.2	22.3	23.6	22.0	21.0	20.6
N11	515812	103309	Urban Background	90.3	90.3	11.9	11.8	10.8	10.3	10.9
N21	510611	105595	Suburban	100.0	100.0	9.1	9.2	8.0	7.6	7.9
N22	511010	102226	Urban Background	100.0	100.0	10.3	10.5	8.5	8.5	8.8
N24	515151	105109	Roadside	90.3	90.3	20.1	29.2	26.2	23.7	25.8
N25	513845	105191	Suburban	100.0	100.0	15.4	15.4	14.2	13.6	14.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
N28	514740	103173	Roadside	100.0	100.0	17.3	17.6	16.0	15.6	16.0
N29	515014	105099	Roadside	75.1	75.1	24.2	26.0	22.7	23.2	22.1
N30A	514183	104948	Roadside	80.9	80.9	**44.4**	**44.7**	**41.0**	**42.4**	36.9
N31	514317	103329	Kerbside	90.3	90.3	20.2	20.6	20.3	19.8	17.8
N39	514088	104906	Roadside	90.6	90.6	23.7	24.4	20.9	20.5	20.6
N42	514742	103234	Roadside	50.0	50.0	17.3	19.5	17.6	16.9	16.1
N43	514199	104982	Suburban	100.0	100.0	17.2	16.6	16.0	15.4	15.3
N44A, N44B, N44C	514184	104963	Roadside	100.0	100.0	29.8	27.8	26.1	25.2	23.2
N48	512063	103385	Roadside	74.6	74.6	20.0	22.3	18.5	18.0	18.7
N52	514973	103335	Kerbside	100.0	100.0	19.2	17.3	19.3	17.0	17.8
N53	513278	105623	Roadside	100.0	100.0	23.7	24.4	24.0	22.6	22.0
N54	515595	102725	Roadside	81.2	81.2	17.1	19.3	19.1	18.4	19.8
N57	515114	102975	Roadside	100.0	100.0	20.8	20.7	19.5	19.7	17.5

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
N64	514946	102541	Urban Centre	100.0	100.0	20.9	21.4	20.2	19.0	17.9
N65	514543	103220	Kerbside	82.0	82.0	23.6	24.0	20.4	20.0	20.6
N66	515067	105082	Roadside	91.7	91.7	24.9	21.5	23.5	23.0	22.3
N71	514548	103843	Roadside	90.9	90.9	11.7	11.8	11.5	11.1	11.7
N73	510598	103012	Roadside	90.3	90.3					18.8

☒ **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 µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

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

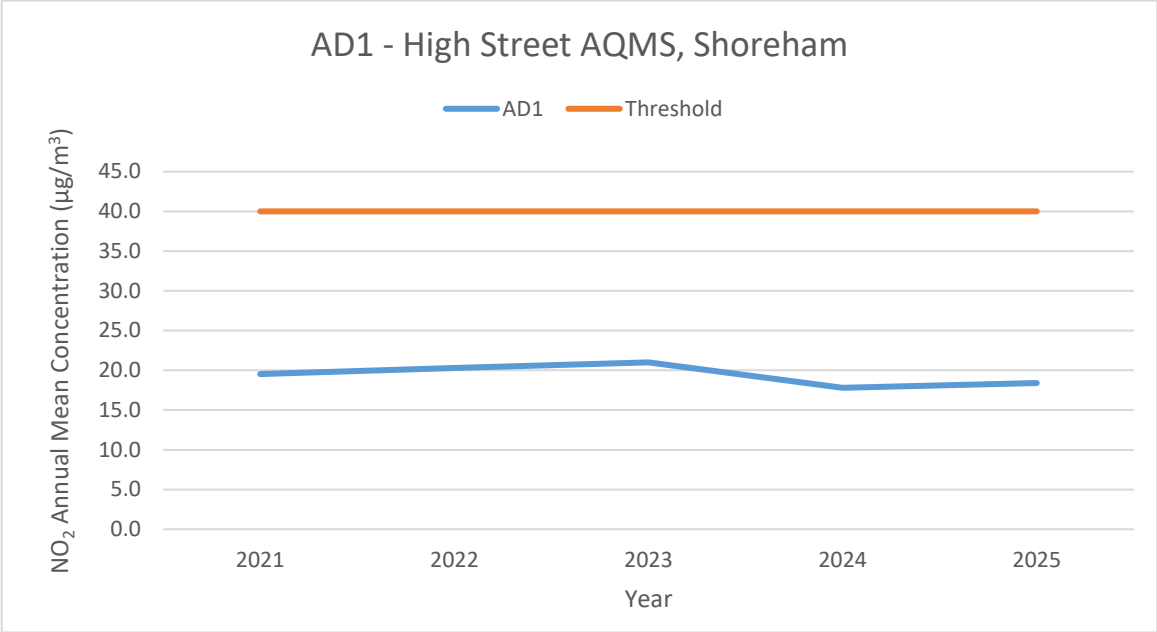
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

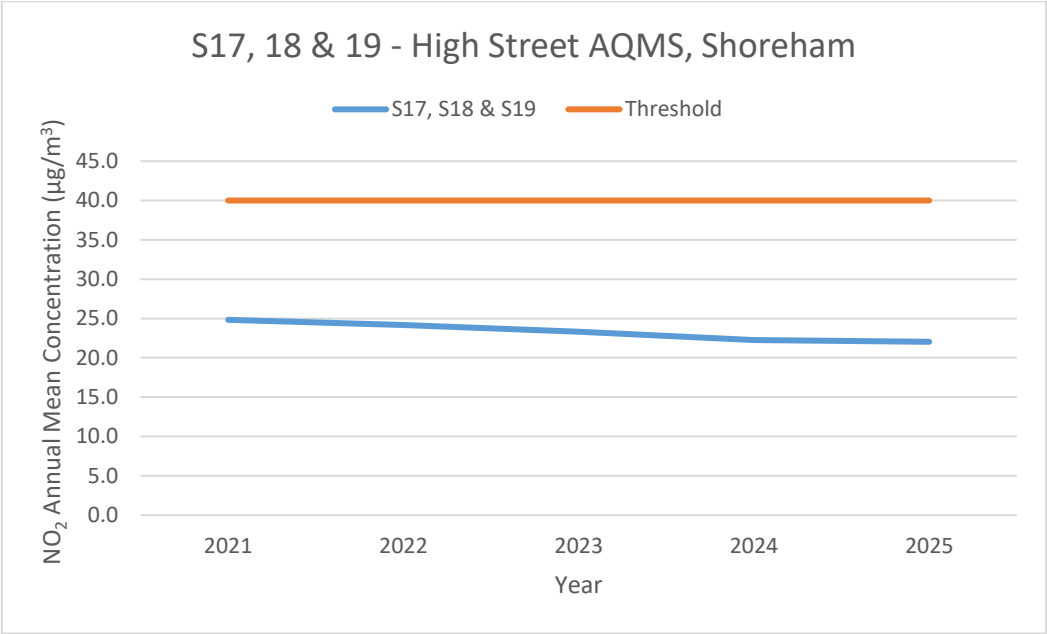
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

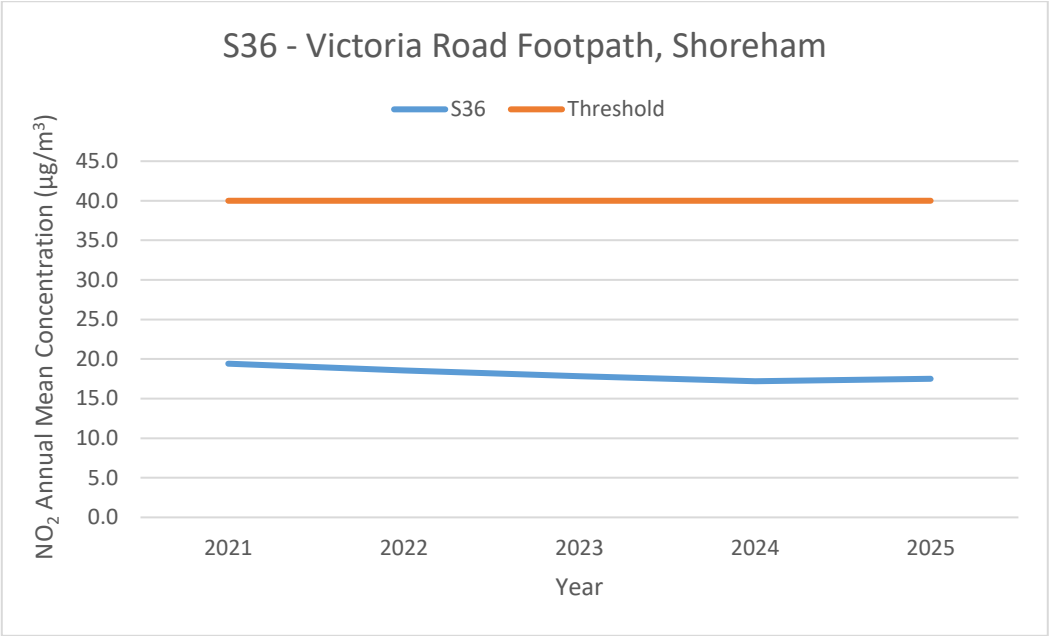
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

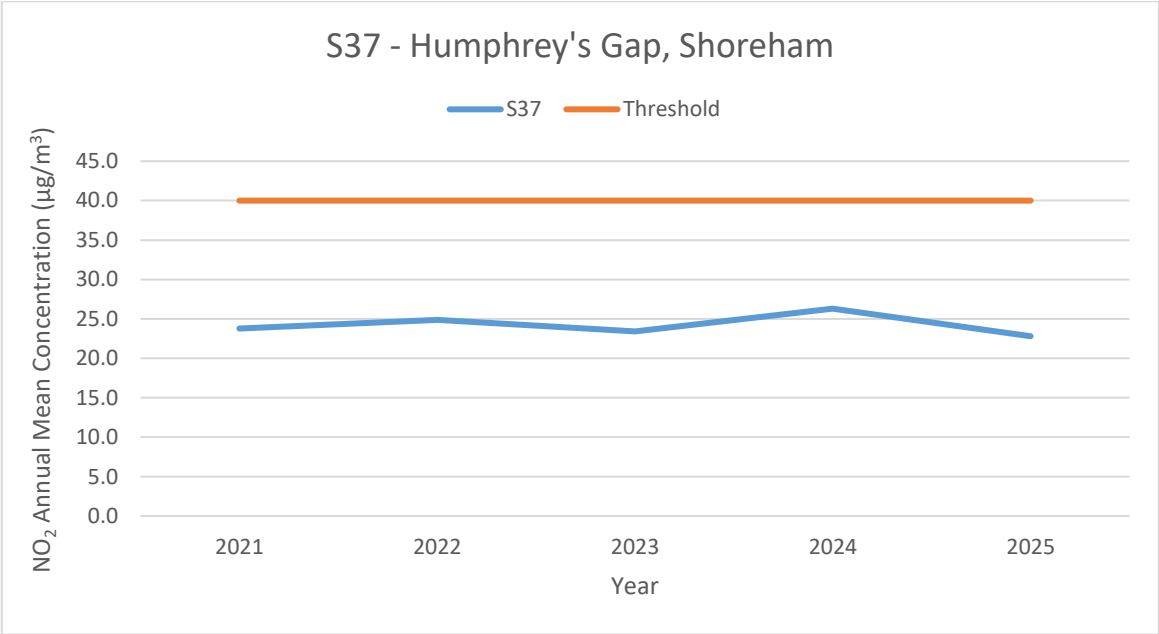
Figure A.1 – Trends in Annual Mean NO_2 Concentrations

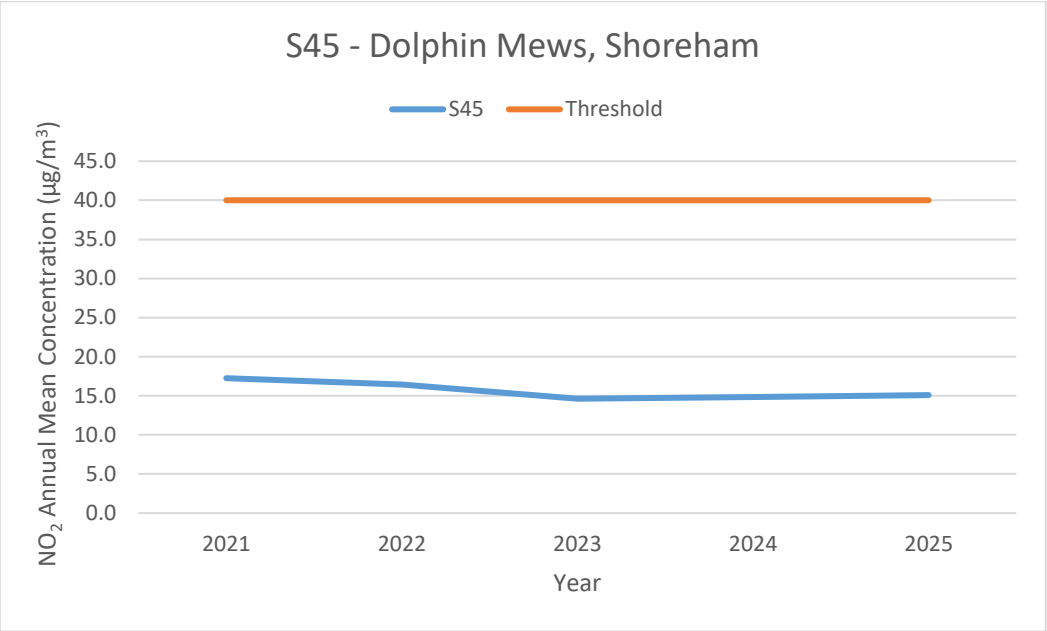
ADUR

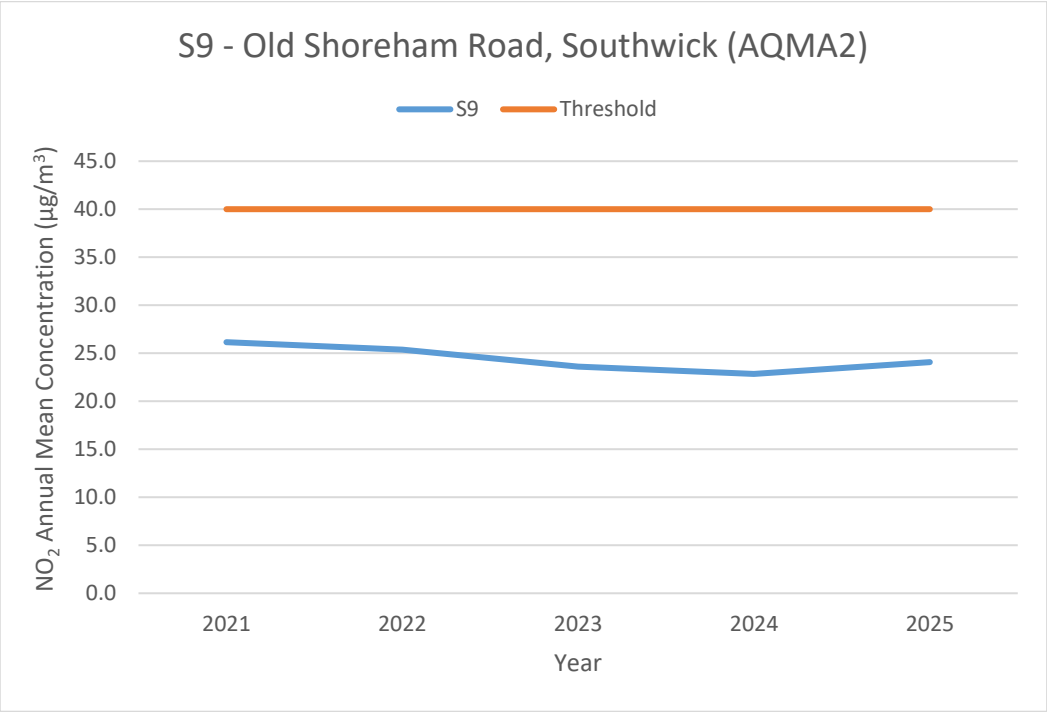


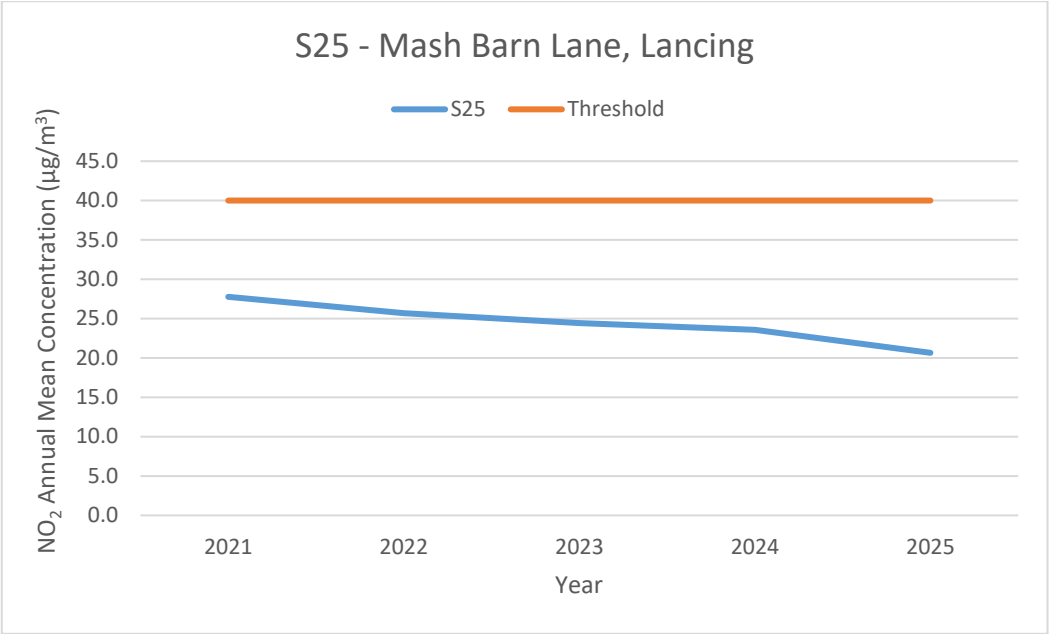

S17, 18 & 19 - High Street AQMS, Shoreham
S17, S18 & S19
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

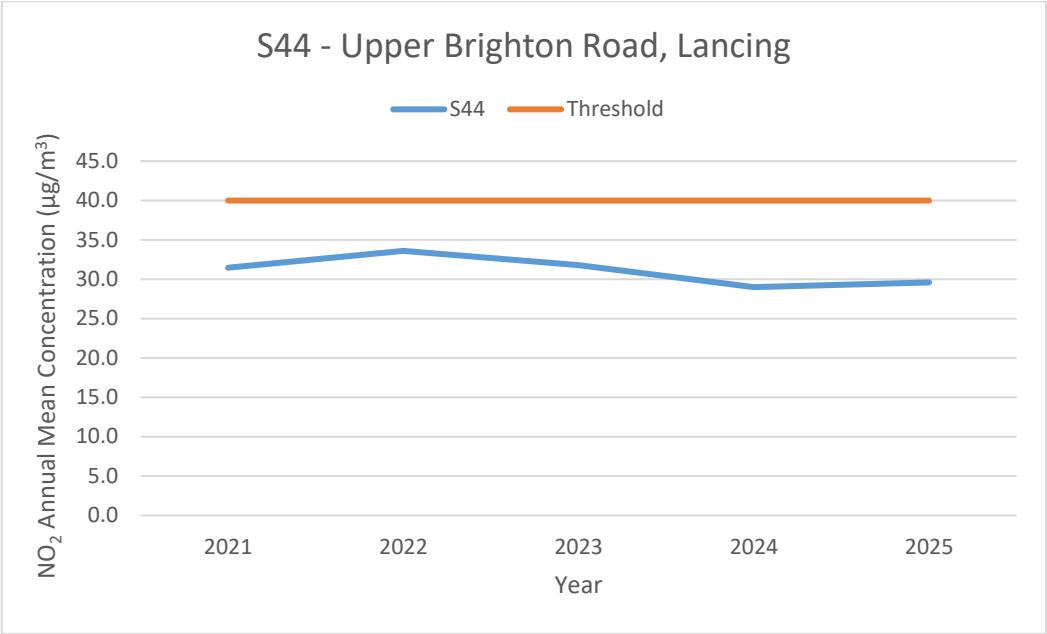

S36 - Victoria Road Footpath, Shoreham
S36
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

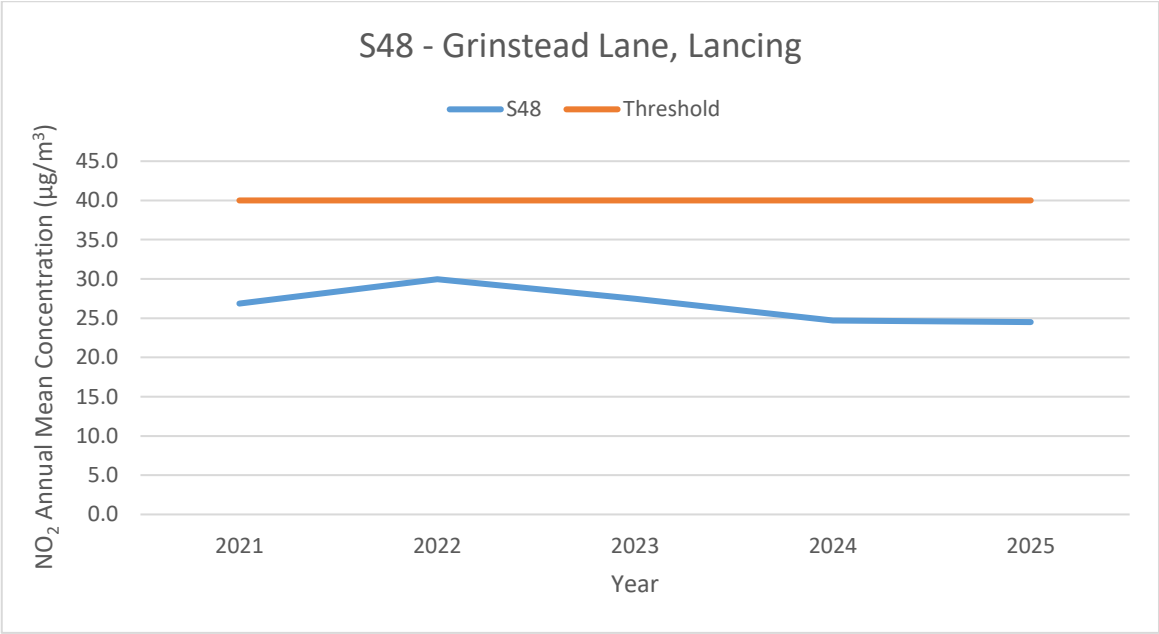

S37 - Humphrey's Gap, Shoreham
S37
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year


S45 - Dolphin Mews, Shoreham
S45
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

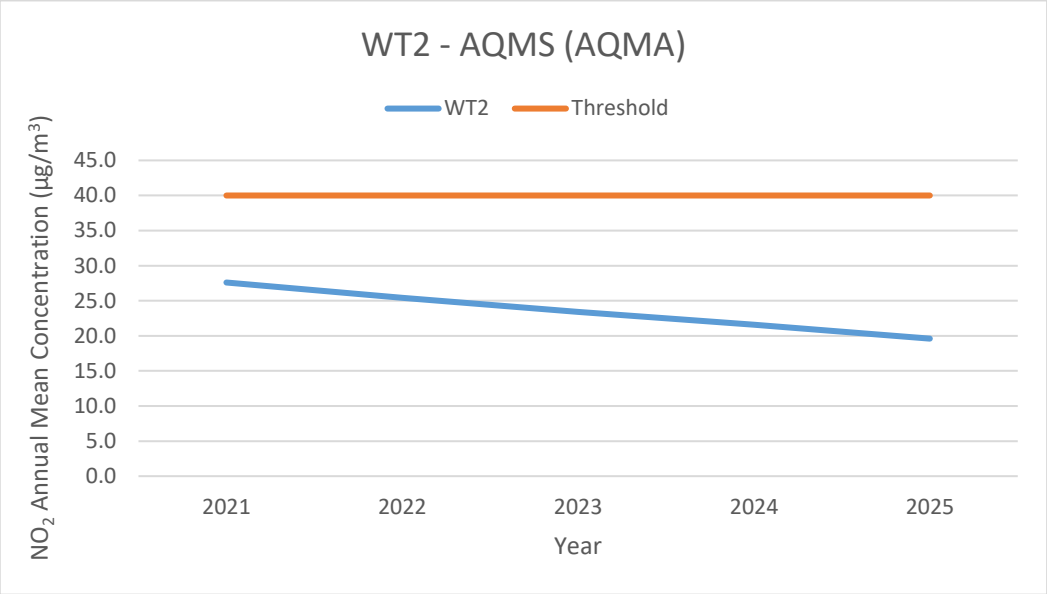

S9 - Old Shoreham Road, Southwick (AQMA2)
S9
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

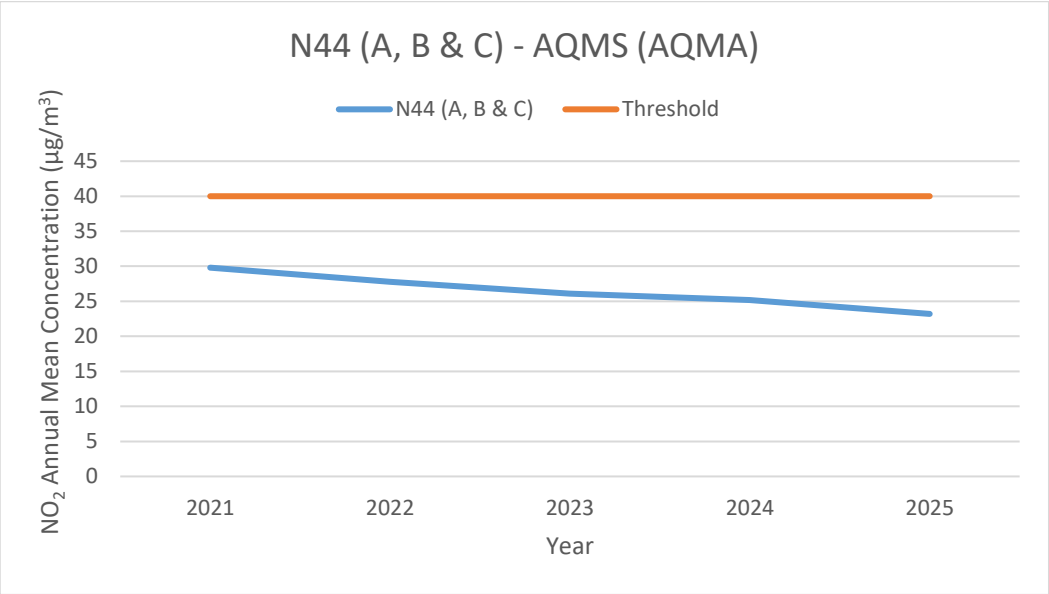

S25 - Mash Barn Lane, Lancing
S25
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

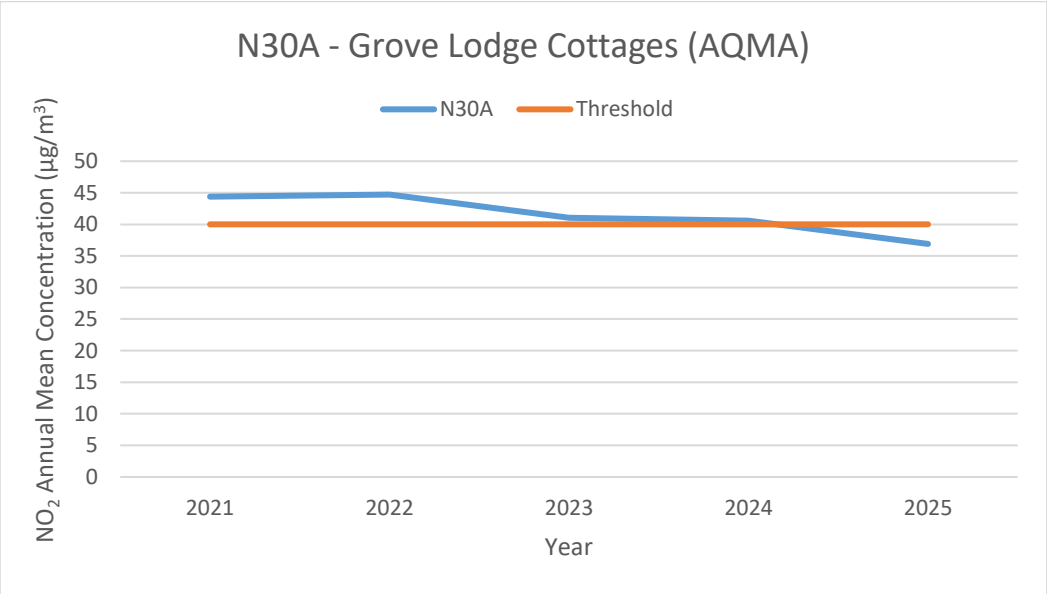

S44 - Upper Brighton Road, Lancing
S44
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

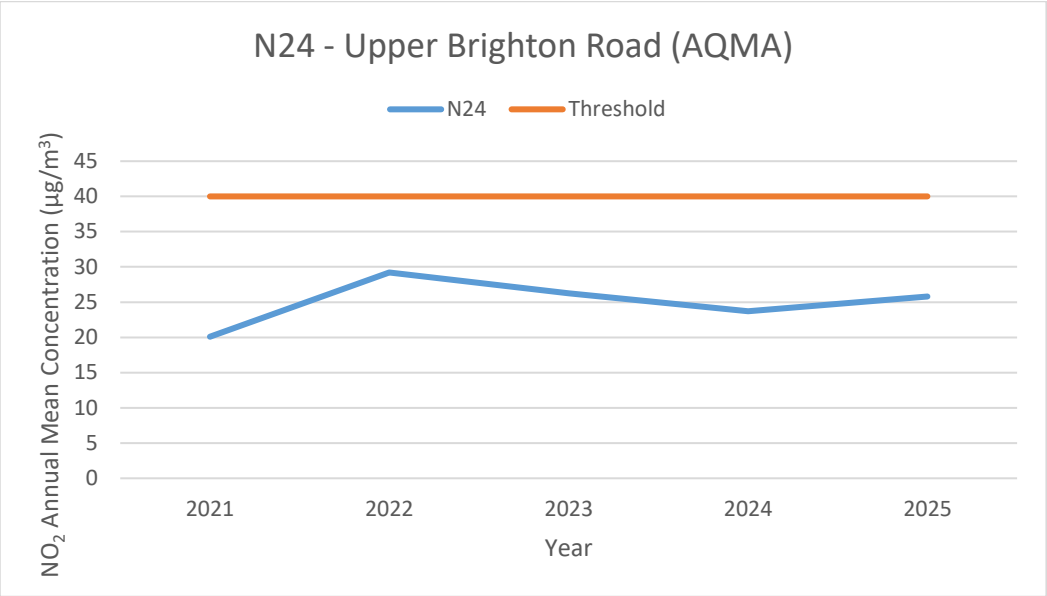

S48 - Grinstead Lane, Lancing
S48
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

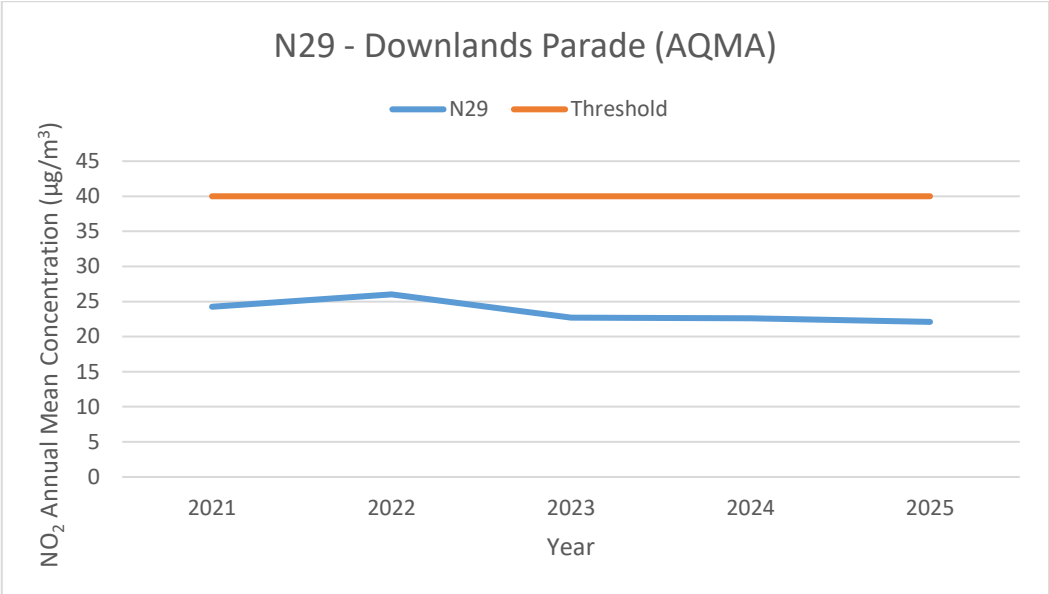
WORTHING

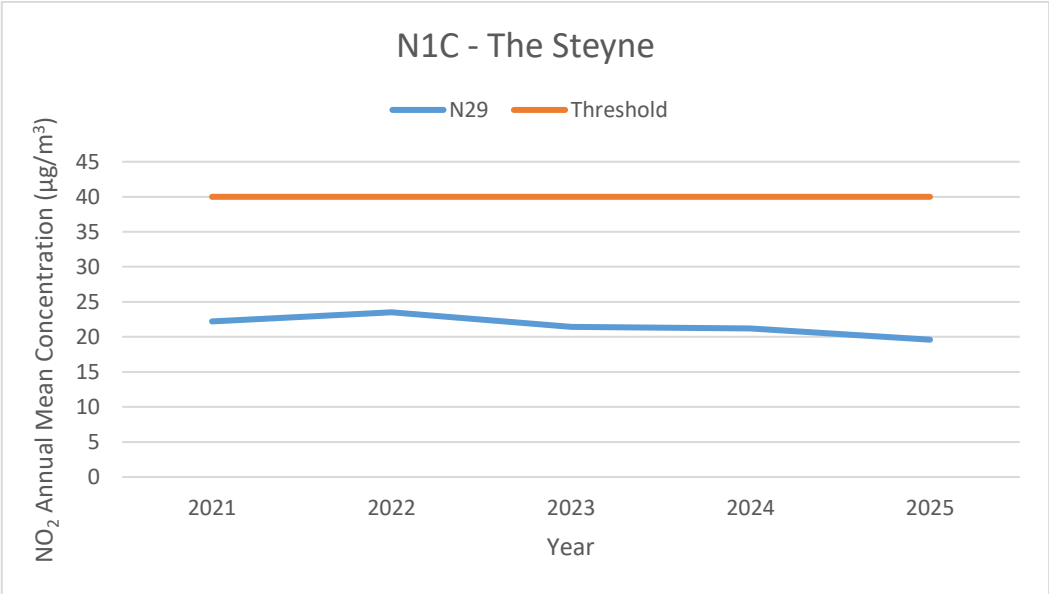

WT2 - AQMS (AQMA)
WT2
Threshold
NO2 Annual Mean Concentration (µg/m3)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
2021
2022
2023
2024
2025
Year

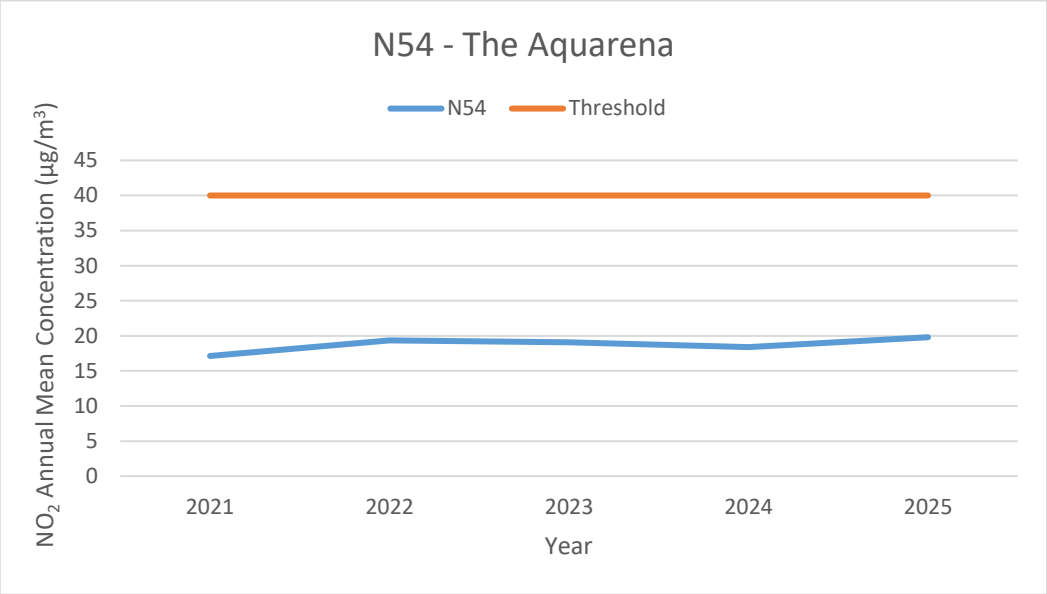

N44 (A, B & C) - AQMS (AQMA)
N44 (A, B & C)
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year

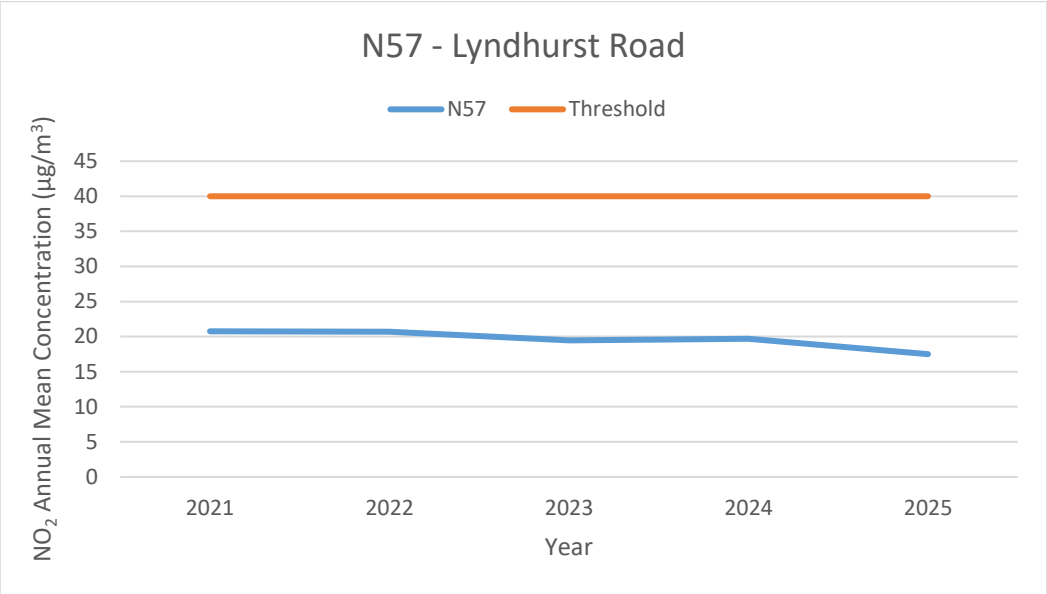

N30A - Grove Lodge Cottages (AQMA)
N30A
Threshold
NO_2 Annual Mean Concentration (µg/m³)
50
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year


N24 - Upper Brighton Road (AQMA)
N24
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year


N29 - Downlands Parade (AQMA)
N29
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year


N1C - The Steyne
N29
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year


N54 - The Aquarena
N54
Threshold
NO_2 Annual Mean Concentration (µg/m³)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year


N57 - Lyndhurst Road
N57
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year

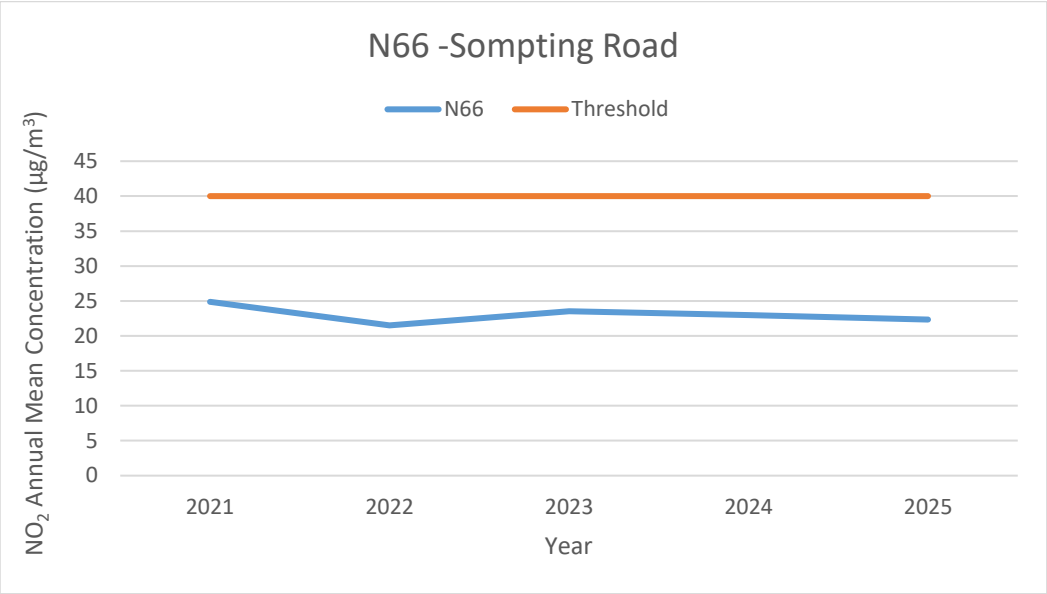

N66 -Sompting Road
N66
Threshold
NO2 Annual Mean Concentration (µg/m3)
45
40
35
30
25
20
15
10
5
0
2021
2022
2023
2024
2025
Year

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
AD1	521399	105039	Kerbside	99.9	99.9	0	0	0	0	0
WT2	514184	104963	Roadside	97.7	97.7	0	0	0	0	0

Notes:

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

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

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

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

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

Table A.6 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
AD1	521399	105039	Kerbside	99.1	99.1	16.2	11.6	10.7	8.4	9.8
WT2	514184	104963	Roadside	95.8	95.8	8.7	8.8	8.7	7.7	8.9

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

Notes:

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

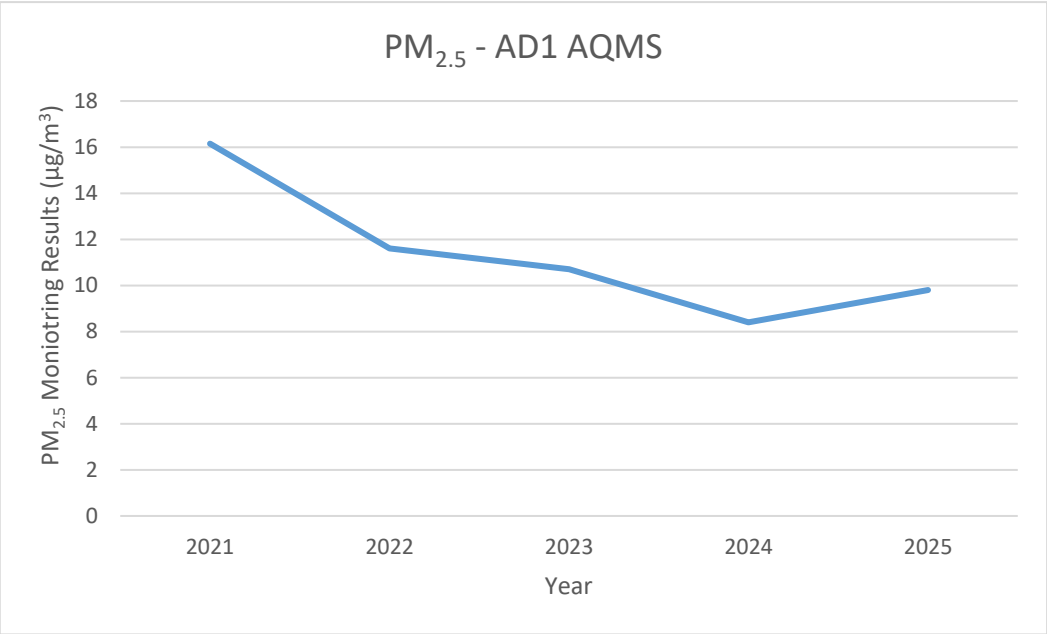
All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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

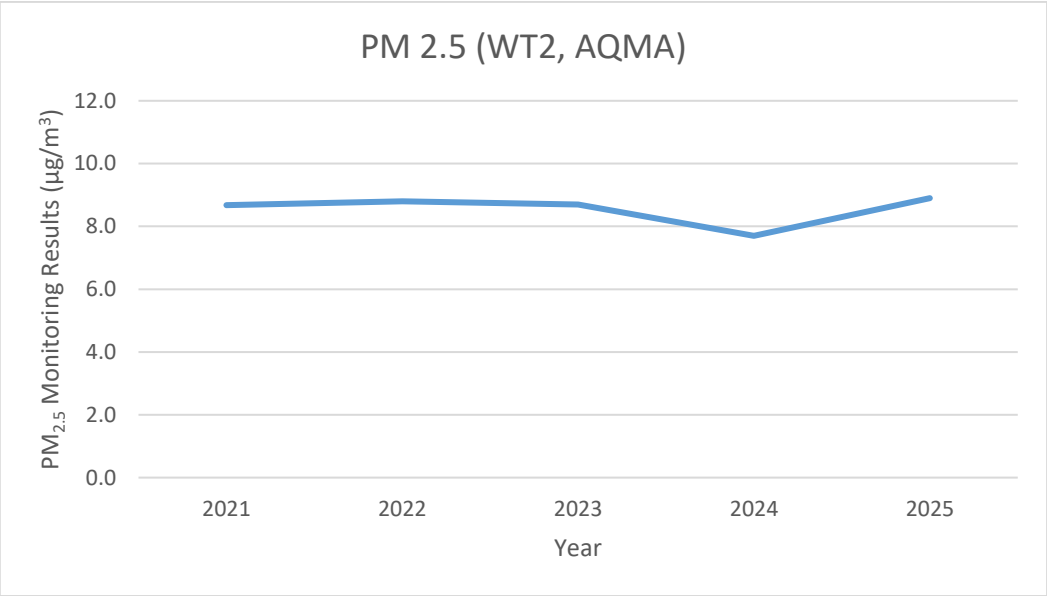
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.2 – Trends in Annual Mean $PM_{2.5}$ Concentrations

ADUR



WORTHING


PM 2.5 (WT2, AQMA)
PM2.5 Monitoring Results (µg/m3)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
2021
2022
2023
2024
2025
Year

Appendix B: Full Monthly Diffusion Tube Results for 2025

Table B.1 – NO_2 2025 Diffusion Tube Results ($\mu g/m^3$)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.92)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
ADUR																		
S2	525330	105085	25.3	25.3	22.1	24.9	13.5	17.8	14.7	13.5	13.8	16.7	19.2	19.5	18.8	17.3		
S3	525562	105313	21.7	20.2	18.7	15.0	10.8	12.2	10.2	9.3	12.6	12.1	15.6	14.9	14.4	13.3	-	
S7	524139	106321	16.4	13.4	15.8	10.5	7.8	8.5	7.2	6.5	7.8	9.5	11.5	13.8	10.7	9.9	-	
S8	524018	106070	30.6	30.2	27.2	22.2	15.9	20.1	15.4	16.2	17.4	21.3	25.4	19.4	21.8	20.0	-	
S9	523784	106081	36.9	31.6	28.7	31.1	20.6	20.9	21.8	21.8	22.7	21.7	28.2	28.1	26.2	24.1	-	
S10	523343	106111	27.7	24.1	22.5	20.8	14.6	12.7	13.7		17.4	17.8		23.2	19.4	17.9	-	
S11	518820	105584	34.7	30.8	29.4	24.8	23.1	20.2	21.4	19.8	18.7	24.6	21.5		24.4	22.5	-	
S12	517731	105505	32.9	30.6	33.2	23.8	18.4	16.6	18.5	15.6	20.2	21.5	19.2	23.7	22.8	21.0	-	
S13	517291	105550	30.4	27.0	29.2	31.4	27.6	36.8	30.2	29.1	24.2	26.6	29.4	28.3	29.2	26.8	-	
S14	516057	105190	16.0	22.8	19.5	21.7	13.4	19.5	16.4	10.4	16.2	15.9	18.1	19.4	17.4	16.0	-	
S17	521400	105040	32.6	28.1	23.0	24.1	22.2	24.6	22.8	22.2	22.6	22.3	26.4	25.2	-	-	-	Triplicate Site with S17, S18 and S19 - Annual data provided for S19 only
S18	521400	105040	28.8	26.5	24.6	26.4	20.6	22.9	18.9	20.3	22.3	20.4	26.6	22.6	-	-	-	Triplicate Site with S17, S18 and S19 - Annual data provided for S19 only
S19	521400	105040	30.9	25.9	24.3	28.5	20.1	23.2	19.8	21.8	19.3	21.3	25.2	25.2	24.0	22.0	-	Triplicate Site with S17, S18 and S19 - Annual data provided for S19 only
S25	519117	105710	33.7	28.1	24.3	23.8	19.0	18.8	19.0	17.3	22.5	22.6	21.8	18.5	22.4	20.7	-	
S26	516536	104783	18.6	16.5	13.9	11.8	9.5	9.9	8.9	17.7					13.3	11.9	-	
S36	521282	105254	29.7	25.9	22.1		14.0	16.8	15.2	15.2	17.3	16.1	19.0	18.1	19.0	17.5	-	

S37	522103	105126	34.1	30.2	30.2	29.0	16.3	23.9	22.0	23.1	17.9	22.4	27.3	21.3	24.8	22.8	-	
S39	523329	104960	30.2	23.1	22.3	19.0	14.3	14.1	14.1	13.2	13.4	16.6	21.0		18.3	16.8	-	
S43	521733	105251	24.6	21.4	23.4	18.4	9.2	14.5	13.9	11.1	14.6	13.5	17.7	16.6	16.6	15.2	-	
S44	518494	105464	38.8	37.6	31.7	36.6	31.8	31.4	27.5	31.3	26.7	27.2	34.9	30.9	32.2	29.6	-	
S45	522300	105258	25.1	22.8	18.5	18.0	13.1	12.6	11.4	12.2	14.0	14.4	17.7	17.4	16.4	15.1	-	
S46	521363	105082	26.6	21.8	16.7	16.5	13.5	16.0	15.7	13.6	16.8	18.1	20.5	20.6	18.0	16.6	-	
S47	521375	105101	24.1	22.5	19.8	18.7	13.2	16.3	13.0	13.8	12.6	14.6		18.4	17.0	15.6	-	
S48	518590	105463	35.1	30.2	27.5	26.7	24.3	23.0	23.6	23.1	24.6	25.4	29.4	27.3	26.7	24.5	-	
S50	521478	105002	13.1	23.0	22.2	24.1	15.8	19.7	18.4	18.3	19.0	15.1			18.9	17.4	-	
S52	518560	105460	41.4	40.4	35.2	38.1	35.2	29.5	30.0	31.9	27.4	34.0	35.0	33.5	34.3	31.6	-	
S53	520196	104350	18.9	19.4	15.7	14.3	10.6	10.7	9.3	9.4	8.9	12.3	13.0	13.9	13.0	12.0	-	
S54	520002	106083		16.7	13.7	15.4	10.1	14.9	11.0	12.3	11.6	10.3	14.4	14.1	13.1	12.1	-	

WORTHING

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 (0.92)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
4N	513609	102556	14.7	16.1	14.5	10.0	7.2	9.5	7.4	6.5	7.4	7.6	10.4	10.4	10.1	9.3		
5N	512701	105562		14.2	14.4	10.4	9.3	8.5	8.9	7.9	8.1	9.5	13.9		10.5	9.7	-	
N1C	515114	102670	25.3	24.7	28.7	19.4	21.4	20.9	16.1	16.7	17.3	20.6	21.9	22.5	21.3	19.6	-	
N5	514495	105020	25.3	20.4	19.9	18.6	16.2	20.7	22.2	16.5	17.7	19.9	20.2		19.8	18.2	-	
N8	513236	104651	26.0	28.8	32.5	21.1	19.7	20.7				18.6	25.1		24.1	20.6	-	
N11	515812	103309	19.0	16.4	15.8	10.6	7.3	11.1	8.5	7.2	9.6		11.0	13.8	11.8	10.9	-	
N21	510611	105595	12.7	11.7	11.1	9.1	6.6	6.6	7.1	6.4	6.6	6.8	9.2	8.9	8.6	7.9	-	
N22	511010	102226	15.2	14.0	14.3	8.4	6.5	8.5	6.7	3.5	8.8	7.6	11.1	9.9	9.5	8.8	-	

N24	515151	105109	35.9	33.5	37.2	32.5	27.5	23.2	22.0	26.5	20.4	24.5	25.9		28.1	25.8	-	
N25	513845	105191	21.0	18.8	21.2	16.4	9.9	12.8	11.9	11.8	12.7	13.8	16.4	16.7	15.3	14.1	-	
N28	514740	103173	26.3	24.3	20.0	20.9	13.9	19.6	7.0	13.2	14.3	16.9	15.9	17.1	17.4	16.0	-	
N29	515014	105099		30.5	28.6	28.3	21.5	24.6	16.7		19.4	23.1	24.0		24.1	22.1	-	
N30A	514183	104948	50.2	42.6	51.2	44.8	34.5	14.4		35.8	42.3	42.6	42.6		40.1	36.9	36.3	
N31	514317	103329	28.8	21.9	20.0	20.5	15.0	20.0	17.4	16.7	14.8	16.6	21.7		19.4	17.8	-	
N39	514088	104906	30.5	24.3	28.4	27.4	19.2	19.4		14.3	18.2	21.0	24.3	19.8	22.4	20.6	-	
N42	514742	103234						14.3	13.5	12.3	15.2		18.4	18.4	15.3	16.1	-	
N43	514199	104982	22.3	20.6	29.0	13.7	11.9	16.0	14.1	12.9	13.0	10.2	18.9	17.5	16.7	15.3	-	
N44A	514184	104963	30.8	27.7	21.2	22.7	24.3	25.5	25.6	19.3	24.5	25.1	27.5	25.5	-	-	-	Triplicate Site with N44A, N44B and N44C - Annual data provided for N44C only
N44B	514184	104963	31.9	26.6	30.9	24.9	23.7	24.2	26.8	23.8	25.3	22.2	26.1	24.4	-	-	-	Triplicate Site with N44A, N44B and N44C - Annual data provided for N44C only
N44C	514184	104963	28.3	25.8	25.6	24.1	20.6	25.5	25.9	26.5	23.2	22.9	26.9	22.7	25.2	23.2	-	Triplicate Site with N44A, N44B and N44C - Annual data provided for N44C only
N48	512063	103385	31.5	25.3	22.8	24.2	15.4	17.8	14.0				22.7	21.1	21.7	18.7	-	
N52	514973	103335	26.5	22.4	21.4	17.3	16.5	19.4	15.7	14.5	16.9	18.6	22.8	20.6	19.4	17.8	-	
N53	513278	105623	28.2	26.6	22.6	22.8	21.9	29.1	21.7	25.2	26.0	14.3	25.7	22.4	23.9	22.0	-	
N54	515595	102725	31.4	26.2	24.1		23.3	23.5	21.5	11.7	17.1	16.6	19.9		21.5	19.8	-	
N57	515114	102975	27.3	28.8	20.3	13.9	11.7	16.0	16.2	15.0	16.7	20.1	21.8	20.2	19.0	17.5	-	
N64	514946	102541	25.8	25.6	22.9	27.1	11.7	13.6	10.8	21.1	16.9	18.1	21.4	18.8	19.5	17.9	-	
N65	514543	103220	30.5	28.5	21.3	23.8		21.7	17.7	16.7	19.9	20.0	23.6		22.4	20.6	-	
N66	515067	105082	28.6	24.7		26.0	21.1	24.1	21.9	22.7	23.6	25.2	23.9	25.3	24.3	22.3	-	
N71	514548	103843	19.8	17.8	15.8		8.9	10.5	8.4	7.9	10.1	10.6	14.4	16.6	12.8	11.7	-	
N73	510598	103012	29.1	28.6	20.9	16.9	14.9	18.9	20.2	15.0	19.3	19.2	21.5		20.4	18.8	-	

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

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

☒ **National bias adjustment factor used.**

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

☒ **Adur & Worthing confirm that all 2025 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

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

New or Changed Sources Identified Within Adur and Worthing During 2025

Adur and Worthing have not identified any new sources relating to air quality within the reporting year of 2025.

Section 2.2 details developments in both areas that are either planned or under construction. Most are still under construction or yet to commence. When completed they will be referenced as new or changed sources.

Additional Air Quality Works Undertaken by Adur and Worthing During 2025

In 2024 Adur District Council commissioned a report to look at the air quality of impacts of developments contained within the Local across Adur District. The assessment considered ambient NO_2, PM_{10} and $PM_{2.5}$ concentrations to which existing and future receptors may be exposed to if certain development were to proceed, based on a review of site boundary plans, pollutant concentrations and the predicted traffic associated with the land allocations at the time of commissioning the report. The potential sites have been promoted to the council for development. This study forms part of the overall site assessment process. Therefore, inclusion of a site at this stage does not necessarily mean that it will be allocated for development in the local plan.

The assessment concluded:

- Annual mean NO_2 concentrations were predicted to be well below the Air Quality Strategy (AQS) Objective of 40µg/m^3 at all modelled existing and future receptors. The maximum increase in concentration was 0.3µg/m^3. The impact was classified as negligible in IAQM/EPUK terms.

- Annual mean PM_{10} concentrations were predicted to be below the AQS Objective of 40µg/m^3 at all modelled existing and future receptors, with maximum increase predicted to be 0.5µg/m^3. The impact was also classified as negligible.

- PM2.5, impacts were assessed against the future AQS Objective of 10µg/m^3 which will come into effect in 2040. Future concentrations were predicted to be **above** this objective at a majority of receptors. It is important to note that background concentrations represent the majority of total concentrations at all receptors. Additionally, the assessment used background concentrations for 2030 as these were the latest available at the time. The largest increase in annual mean concentrations was 0.3 µg/m^3. In IAQM/EPUK terms impacts were considered substantial at two receptors, moderate at 91 receptors, slight at 55 receptors, and negligible at all remaining 353 modelled receptors.

- The assessment also considered emissions of Nitrogen (as NOX) from road traffic at existing ecological receptor locations. Annual mean concentrations were below the relevant AQS metric at all receptor locations, The impact can be regarded as negligible.

- A NOX source apportionment exercise was undertaken for Scenario 3S at future modelled receptors. The assessment demonstrates with the Scenario 3S, a largely consistent ranking of contributing vehicle classes with Petrol Cars (including Petrol Hybrid and Petrol Plugin Hybrid Cars) and Diesel LGVs found to be the main contributors to total road NOx emissions.

The full report can be viewed at:
https://www.adur-worthing.gov.uk/planning-policy/adur/adur-background-studies-and-info/biodiversity-environment/#air-quality-idma

QA/QC of Diffusion Tube Monitoring

NO_2 diffusion tubes are provided and analysed by Gradko laboratory. The NO_2 tube preparation method used is 50% triethanolamine (TEA) in Acetone**.**

In order to ensure NO_2 concentrations are of a high quality, strict performance criteria need to be met through the execution of QA and QC procedures. A number of factors have been identified as influencing the performance of NO_2 diffusion tubes including the laboratory preparing and analysing the tubes, and the tube preparation method (AEA, 2008). QA and QC procedures ensure that uncertainties in the data are minimised and allow the best estimate of true concentrations to be determined. Gradko participate in several national quality schemes such as Air PT, LEAP and Field Intercomparison, giving confidence in analysis results. Since April 2014, Gradko has taken part in AIR PT, which combines two long running PT schemes: LGC Standards STACKS PT scheme and HSL WASP PT scheme.

Gradko International Ltd is a UKAS accredited laboratory to ISO/IEC 17025:2017 (No. 2187, latest certificate issued 25 January 2024) and participates in laboratory performance and proficiency testing schemes. These provide strict performance criteria for participating laboratories to meet, ensuring NO_2 concentrations reported are of a high calibre.

Gradko participate in the AIR NO_2 Proficiency Testing (PT) Scheme. The AIR PT scheme uses diffusion tubes laboratory spiked with a Nitrite solution to test each participating laboratory's analytical performance on a quarterly basis. Defra advise that diffusion tubes used for LAQM should be obtained from laboratories that have demonstrated satisfactory performance in the AIR-PT scheme. Gradko's performance for 2022-2024 was 100%.

All Local Authority monitoring was completed in accordance with the 2025 Defra Diffusion Tube Monitoring Calendar.

Data from the NO_2 diffusion tubes has been bias corrected using the national factors produced by the UK co-location data-base available from Defra, https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

UKAS TESTING

2187

Accredited to ISO/IEC 17025:2017

Gradko International Ltd
(Trading as Gradko Environmental)

Issue No: 028 **Issue date:** 02 September 2025

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Testing performed at the above address only

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ATMOSPHERIC POLLUTANTS Collected on diffusion (sorbent) tubes and monitors	Chemical Tests	Documented In-House Methods
	Ammonia as ammonium (NH_4^+)	GLM 8 by Ion Chromatography
	Benzene Toluene Ethyl benzene Xylene	GLM 4 by Thermal Desorption/ FID Gas Chromatography
	Hydrogen chloride as chloride (Cl^-) Nitrogen dioxide as nitrite (NO_2^-) Sulphur dioxide as sulphate (SO_4^{2-}) Hydrogen fluoride as fluoride (F^-)	GLM 3 by Ion Chromatography
	Hydrogen sulphide	GLM 5 by Colorimetric determination (UV Spectrophotometry)
	Ozone as nitrate (NO_3^-)	GLM 2 by Ion Chromatography
	Nitrogen Dioxide as nitrite (NO_2^-)	GLM 7 by Colorimetric determination (UV Spectrophotometry)
	Sulphur dioxide as sulphate (SO_4^{2-})	GLM 1 by Ion Chromatography
	Formaldehyde as formaldehyde-DNPH	GLM 18 by HPLC
	Volatile Organic Compounds including: Benzene Toluene Ethylbenzene p-Xylene o-Xylene	GLM 13 by Thermal Desorption GC-Mass Spectrometry

UKAS TESTING 2187 Accredited to ISO/IEC 17025:2017	**Schedule of Accreditation** issued by **United Kingdom Accreditation Service** 2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK **Gradko International Ltd** **(Trading as Gradko Environmental)** **Issue No:** 028 **Issue date:**

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ATMOSPHERIC POLLUTANTS Collected on diffusion (sorbent) tubes and monitors (cont'd)	Chemical Tests (cont'd)	
	Qualitative Analysis and Estimation of Volatile Organic Compounds on diffusion (sorbent) tubes and monitors	GLM 13 by Thermal Desorption GC-Mass Spectrometry with estimations in accordance with ISO standard 16000-6
	Naphthalene Tetrachloroethylene Trichloroethylene Styrene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 4-Isopropyltoluene (p-cymene)	GLM 13-1 by Thermal Desorption GC-Mass Spectrometry
	1,3-Butadiene	GLM 13-6 by Thermal Desorption GC-Mass Spectrometry
	Carbon Disulphide	GLM 13-7 by Thermal Desorption GC-Mass Spectrometry
	Flexible scope for quantitative analysis of Volatile Organic Compounds on diffusion (sorbent) tubes and monitors in accordance with methods developed and validated by in-house procedure LWI 47	LWI 47 by Thermal Desorption GC-Mass Spectrometry
END		

Diffusion Tube Annualisation

Four sites had a data capture of less than 75%. This was because of missing tubes in some months. Annualisation of these sites is shown below.

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

Site ID	Annualisation Factor AD1	Annualisation Factor WT2	Annualisation Factor Storrington UKA00548	Annualisation Factor Preston Park UKA00483	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
ADUR							
S26	0.9909	0.9841	0.9598	0.9467	0.9704	13.3	13.0
WORTHING							
N8	0.9423	0.9549	0.9218	0.8984	0.9293	24.1	22.4
N42	1.0992	1.0790	1.1533	1.2267	1.1395	15.3	17.5
N48	0.9531	0.9632	0.9401	0.8986	0.9387	21.7	20.3

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2025 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Adur and Worthing have applied a national bias adjustment factor of **0.92** to the 2025 monitoring data. A summary of bias adjustment factors used by Adur and Worthing over the past five years is presented in Table C.2.

Table C.2 – Bias Adjustment Factor

As with previous years a National Bias Adjustment Factor was used for 2025. We again considered using a local bias factor as we have diffusion tubes collocated with our automatic analysers. However, after consideration of the guidance contained within Chapter 7 (and specifically Box 7.13) of the LAQM Technical Guidance (TG22), we

decided to continue using the national factor. Part of our consideration was that by using the national factor members of the public are better able to understand changes in concentrations when comparing concentrations from previous years which also used national factors.

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	National	03/26	0.92
2024	National	06/25	0.88
2023	National	03/24	0.83
2022	National	03/23	0.82
2021	National	06/22	0.82

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 03/26

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

This spreadsheet will be updated at the end of June 2026
LAQM Helpdesk Website

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

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

Step 1: Select the Laboratory that Analyses Your Tubes from the Drop-Down List. If a laboratory is not shown, we have no data for this laboratory.

Step 2: Select a Preparation Method from the Drop-Down List. If a preparation method is not shown, we have no data for this method at this laboratory.

Step 3: Select a Year from the Drop-Down List. If a year is not shown, we have no data[2]

Step 4: Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in **blue** at the foot of the final column.

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

Analysed By[1]	Method (To undo your selection, choose (All) from the pop-up list)	Year[2] (To undo your selection, choose (All))	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m³)	Automatic Monitor Mean Conc. (Cm) (µg/m³)	Bias (B)	Tube Precision[4]	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	50% TEA in acetone	2025	UB	City Of York Council	12	13	12	13.4%	G	**0.88**
Gradko	50% TEA in acetone	2025	R	City Of York Council	12	20	19	6.6%	G	**0.94**
Gradko	50% TEA in acetone	2025	R	City Of York Council	10	16	15	7.0%	G	**0.93**
Gradko	50% TEA in acetone	2025	R	City Of York Council	11	21	18	18.1%	G	**0.85**
Gradko	50% TEA in acetone	2025		**Overall Factor[3] (18 studies)**				**Use**		**0.92**

[1] For Casella Stanger/Bureau Veritas (NOT Bureau Veritas Labs) use Gradko 50% TEA in Acetone.
From 2024 use Staffordshire County Council instead of Staffordshire Scientific Services
For Staffordshire CC SSI/Staffordshire County Analyst use Staffordshire Scientific Services.
For Casella Seal/GMSS/Casella CRE/Bureau Veritas Labs/Eurofins/ use Environmental Scientific Groups.
From 2011 for Environmental Scientific Groups use ESG Glasgow.
From 2011 for Harwell Scientific Services use ESG Didcot.
For 2017 for SOCOTEC use ESG Didcot, as name changed mid year.
For 2018 SOCOTEC entered as Didcot and Glasgow. Glasgow analysis lab moved to Didcot mid 2018.
For Bodycote Health Sciences and Clyde Analytical Laboratories use Exova.
For Rotherham MBC use South Yorkshire Labs.
For Dundee CC use Tayside SS.
For Leicester Scientific Services use Staffordshire Scientific Services.
For South Yorkshire Air Quality Samplers use South Yorkshire Labs. As of January 2010 sampler body changed. As of April 2010 sampler cap changed.
Lancashire County Analysts withdrew from the Field intercomparison at the end of 2010. No submissions were supplied in 2011.
Walsall MBC closed in March 2011.
Bristol Scientific Services closed at the end of 2011.
Somerset County Council did not start the Marylebone road intercomparison until June 2012.
Exova stopped providing diffusion tubes at the end of 2013.
Kent Scientific Services stopped providing diffusion tubes at the end of 2013.
Kirklees Council stopped providing diffusion tubes in the middle of 2016.
Northampton BC stopped providing diffusion tubes in 2017.
2018 - Gradko preparation method for 50% TEA in acetone tubes changed from pipetting to dipping of grids to coat them in TEA.
West Yorkshire Analytical Services stopped providing diffusion tubes in 2020.
South Yorkshire Air Quality Samplers stopped providing diffusion tubes in 2022.
SOCOTEC Glasgow stopped providing both recipes in July 2025.

[2] In this situation it would be reasonable to use data from the nearest year.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

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

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
N30A	2.2	2.4	36.9	11.4	*36.3*	*Predicted concentration at Receptor within 10% the AQS objective.*

In addition to the site listed in the table above, we distance corrected other diffusion tube sites to demonstrate concentrations at relevant receptors. The calculations for these sites are below.

Adur

S17/18/19

Enter data into the pink cells

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
S17	0.9	5.9	11.1	22.7	18.4	
S18	0.9	5.9	11.1	21.5	17.7	
S19	0.9	5.9	11.1	21.9	17.9	

S44

Enter data into the pink cells

Step 1	How far from the KERB was your measurement made (in metres)?	2	metres
Step 2	How far from the KERB is your receptor (in metres)?	5.4	metres
Step 3	What is the local annual mean background NO_2 concentration (in $\mu g/m^3$)?	11.54352	$\mu g/m^3$
Step 4	What is your measured annual mean NO_2 concentration (in $\mu g/m^3$)?	29.6	$\mu g/m^3$
Result	The predicted annual mean NO_2 concentration (in $\mu g/m^3$) at your receptor	25.4	$\mu g/m^3$

S52

Enter data into the pink cells

Step 1	How far from the KERB was your measurement made (in metres)?	1.8	metres
Step 2	How far from the KERB is your receptor (in metres)?	17.5	metres
Step 3	What is the local annual mean background NO_2 concentration (in $\mu g/m^3$)?	11.54352	$\mu g/m^3$
Step 4	What is your measured annual mean NO_2 concentration (in $\mu g/m^3$)?	31.56	$\mu g/m^3$
Result	The predicted annual mean NO_2 concentration (in $\mu g/m^3$) at your receptor	21.2	$\mu g/m^3$

Worthing

N30A

Enter data into the pink cells

Step 1	How far from the KERB was your measurement made (in metres)?	2.2	metres
Step 2	How far from the KERB is your receptor (in metres)?	2.4	metres
Step 3	What is the local annual mean background NO_2 concentration (in µg/m^3)?	11.37698	µg/m^3
Step 4	What is your measured annual mean NO_2 concentration (in µg/m^3)?	36.9	µg/m^3
Result	The predicted annual mean NO_2 concentration (in µg/m^3) at your receptor	*36.4*	µg/m^3

N44A/B/C

Enter data into the pink cells

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
N44A	2.8	21.6	11.4	23.0	17.0	Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.
N44B	2.8	21.6	11.4	23.8	17.3	Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.
N44C	2.8	21.6	11.4	22.9	16.9	Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.

QA/QC of Automatic Monitoring

Adur: The automatic continuous monitoring site in Shoreham High Street (site AD1) is part of the Sussex-air monitoring network (www.sussex-air.net/). The site is serviced every six months and Local Site Operator (LSO) routine calibrations are completed by Adur District Council every fortnight.

Data validation during 2025 was carried out via the Sussex-air data management contract, which for 2025 was with Bureau Veritas. Information on the data validation process is

available here - https://sussex-air.net/wp-content/uploads/2024/08/Sussex-data-validation-process-v2.1-2024-update.pdf

Worthing: The automatic continuous monitoring site at Grove Lodge Worthing is part of the national Automatic Urban and Rural Network (AURN) and complies with the EU Directive on ambient air quality (2008/50/EC). The site is audited and serviced every six months and Local Site Operator (LSO) calibrations are completed by Worthing Borough Council every two weeks.

For information on data ratification visit https://uk-air.defra.gov.uk/assets/documents/Data_Validation_and_Ratification_Process_Apr_2017.pdf.

Data for both sites is available via www.sussex-air.net/

Worthing data is also available via the UKAir website - https://uk-air.defra.gov.uk/data/data_selector

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

The type of /$PM_{2.5}$ monitors utilised within Adur District and Worthing Borough Councils do not required the application of a correction factor.

Automatic Monitoring Annualisation

All automatic monitoring locations within Adur District and Worthing Borough Councils recorded data capture of greater than 75%, therefore it was not necessary to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure should be estimated using the NO_2 fall-off with distance calculator available on the LAQM Support website.

Table C.4 – Automatic NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
AD1	0.9	5.9	18.4	11.1	15.7	
WT2	2.8	21.6	19.6	11.4	15.3	

Summary of Low Cost Air Quality Sensor Monitoring

Table C.5– Details of Low Cost Sensor Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	Sensor Type	In AQMA?	Which AQMA? (1)	Distance to Relevant Exposure (m) (1,2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
449	Adur DC A259 Shoreham High Street	Kerbside	521399	105039	NO, NO_2, O_3, PM_1, $PM_{2.5}$, PM_{10}	Earthsense Zephyr	NO	N/A	5.9	0.9	2.0

Table C.6 – Monthly Air Quality Sensor Monitoring Results

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
NO	24.6	19.8	19.3	19.3	25.4	36.8	40.1	36.2	25.0	20.6	20.2	17.8	25.4
O_3	33.4	34.5	43.1	64.4	73.7	74.3	64.8	73.2	61.1	48.6	43.7	46.9	55.1
PM_1	9.5	11.4	12.4	8.3	5.8	4.1	3.7	3.7	2.3	3.8	3.7	4.7	6.1
$PM_{2.5}$	11.8	14.4	15.5	11.1	7.9	6.1	5.5	5.5	3.9	5.3	5.0	6.5	8.2
PM_{10}	18.1	22.2	23.2	16.1	11.4	9.0	8.1	8.2	6.3	8.4	8.4	10.6	12.5

Notes: All data is µg/m³

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

Figure D.1 – Map of Automatic and Non-Automatic Monitoring Sites in both Adur and Worthing Map of Non-Automatic Monitoring Site

See next page

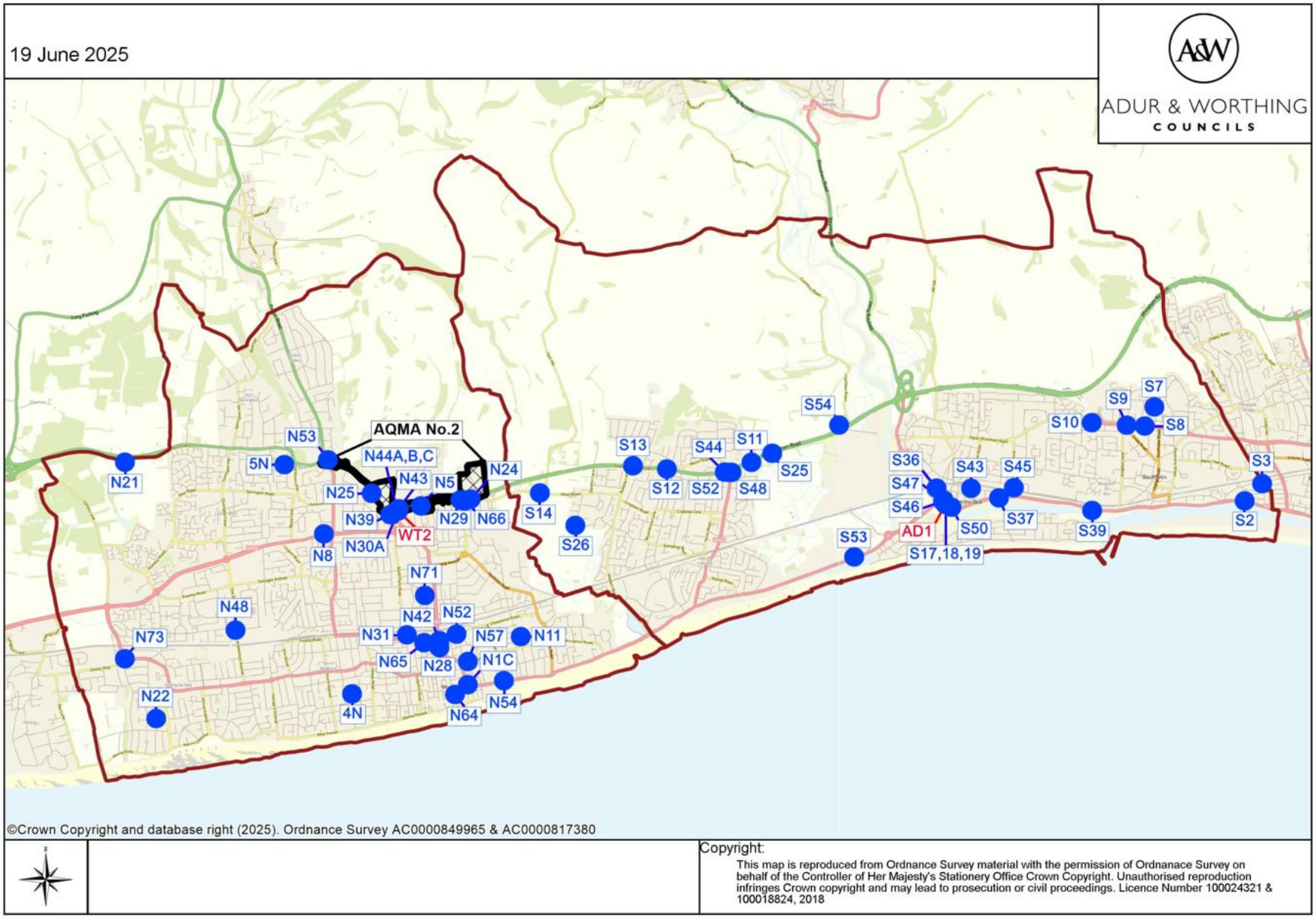
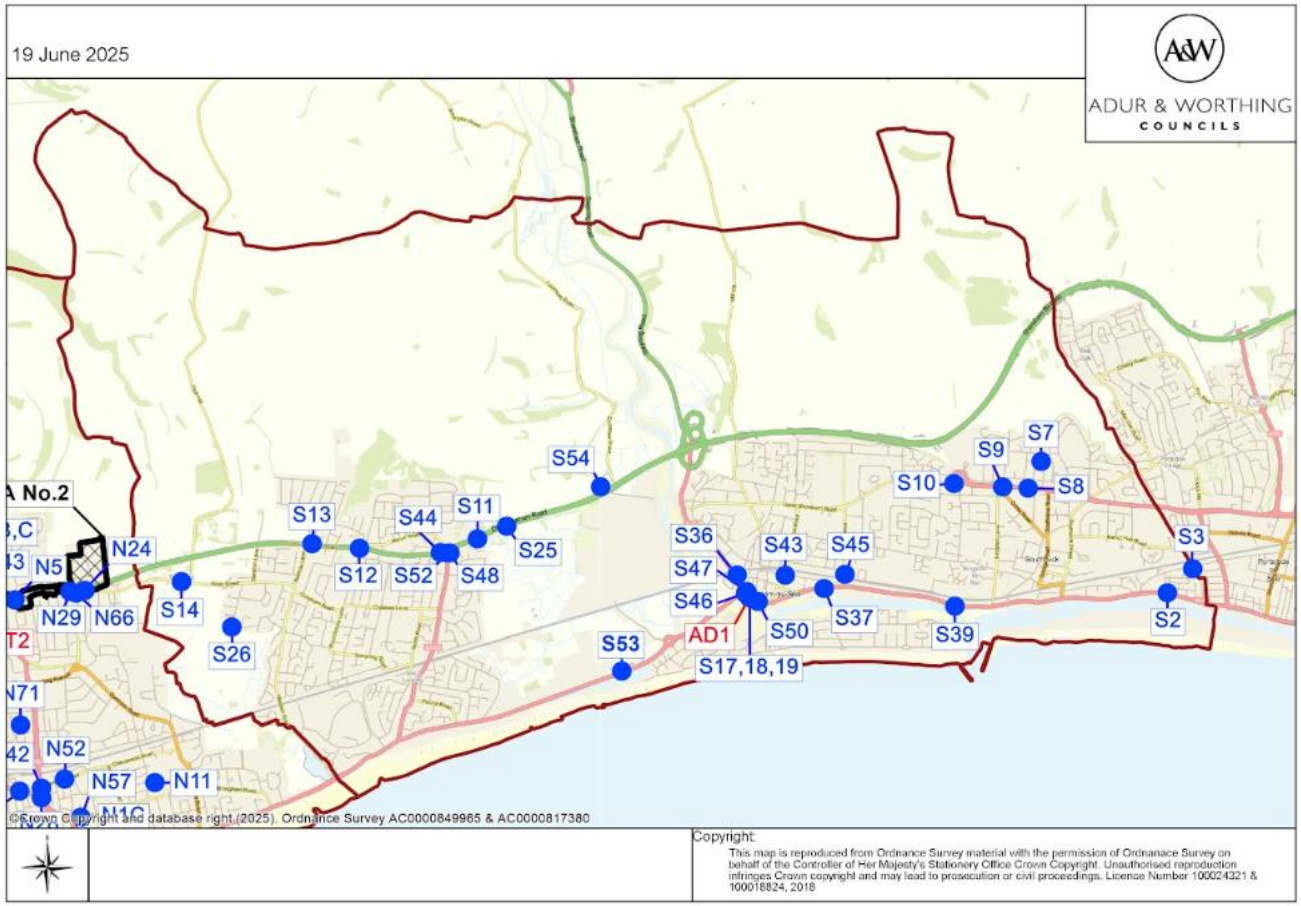
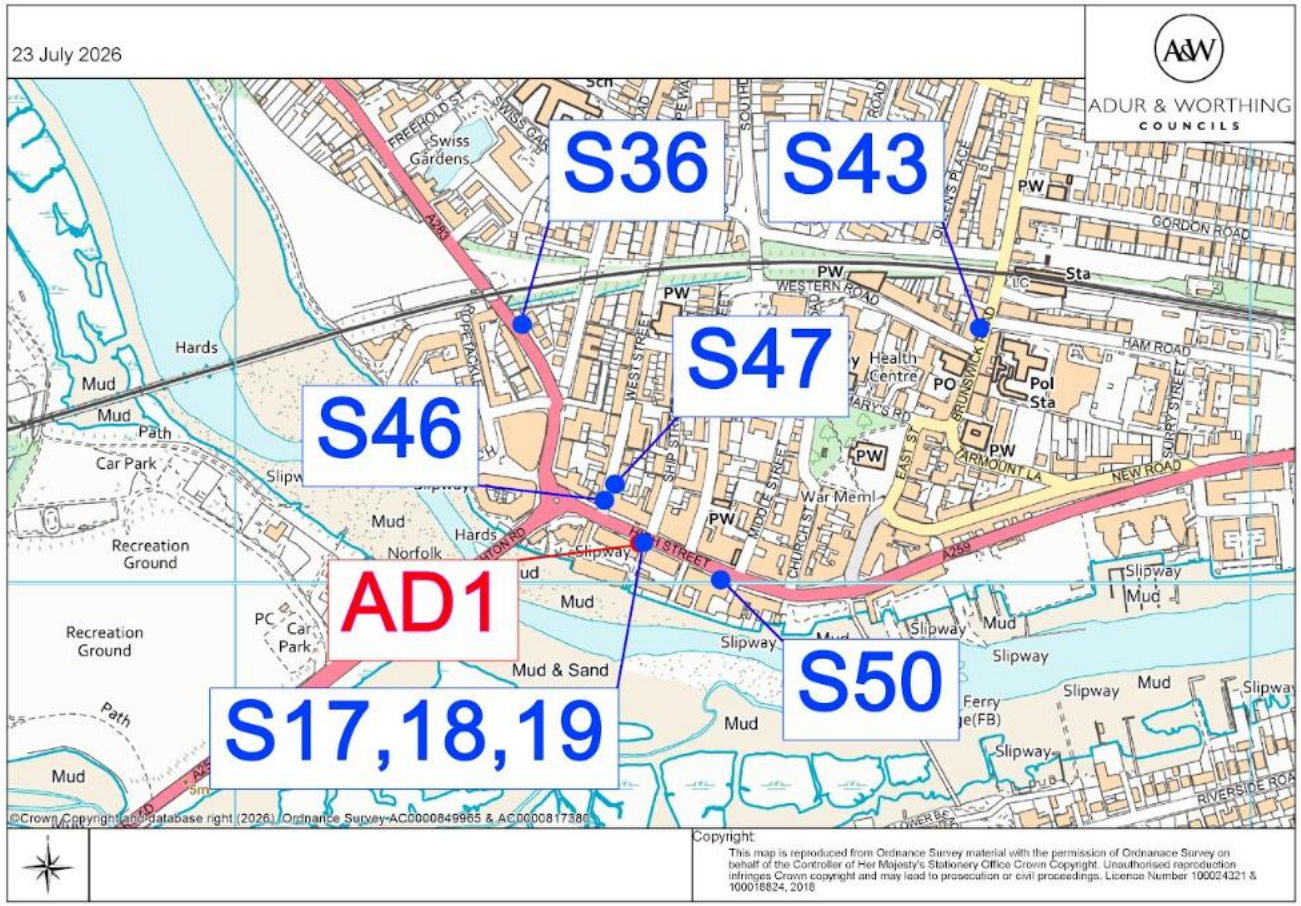

19 June 2025
ADUR & WORTHING
COUNCILS
AQMA No.2
N53
5N
N21
N44A,B,C
N43
N5
N24
N25
N39
N29
N66
WT2
N30A
N8
S14
S26
S13
S12
S44
S52
S11
S48
S25
S54
S36
S47
S46
AD1
S43
S45
S37
S50
S53
S17,18,19
S10
S9
S7
S8
S3
S2
S39
N71
N48
N42
N52
N73
N31
N57
N11
N65
N28
N1C
N22
4N
N64
N54
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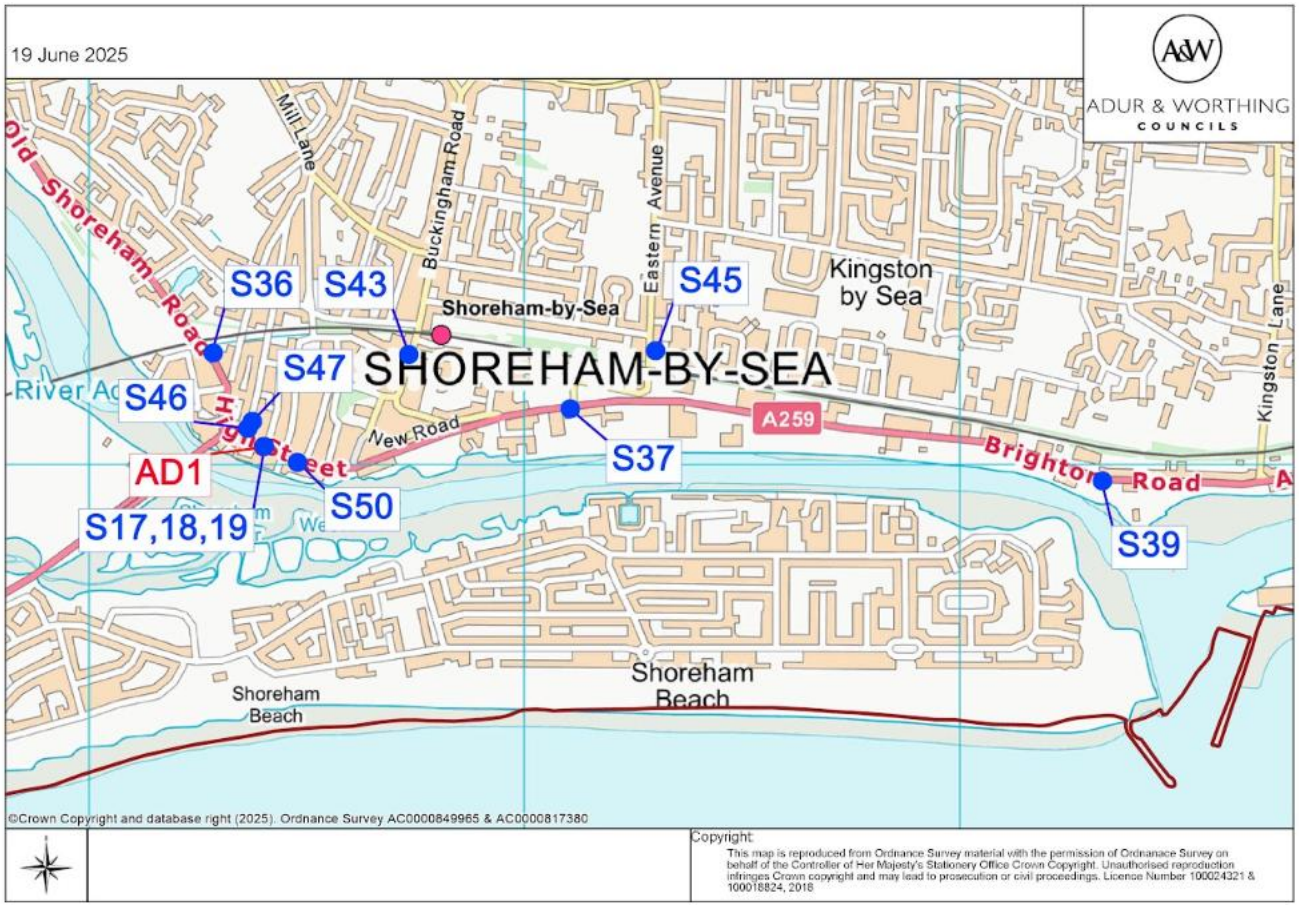
Figure D.2 – Maps of Monitoring Sites in Adur District



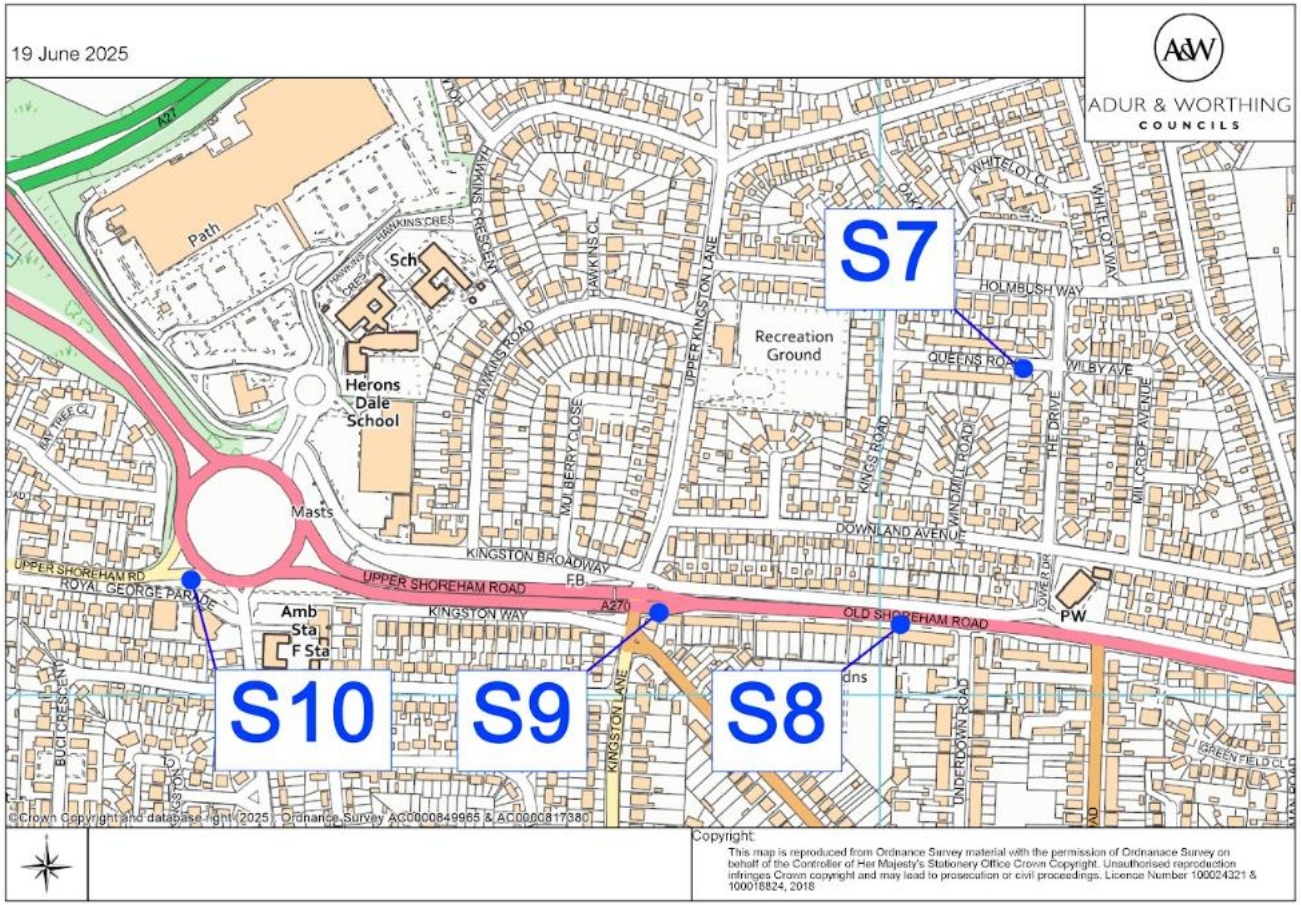
Central Shoreham-by-Sea



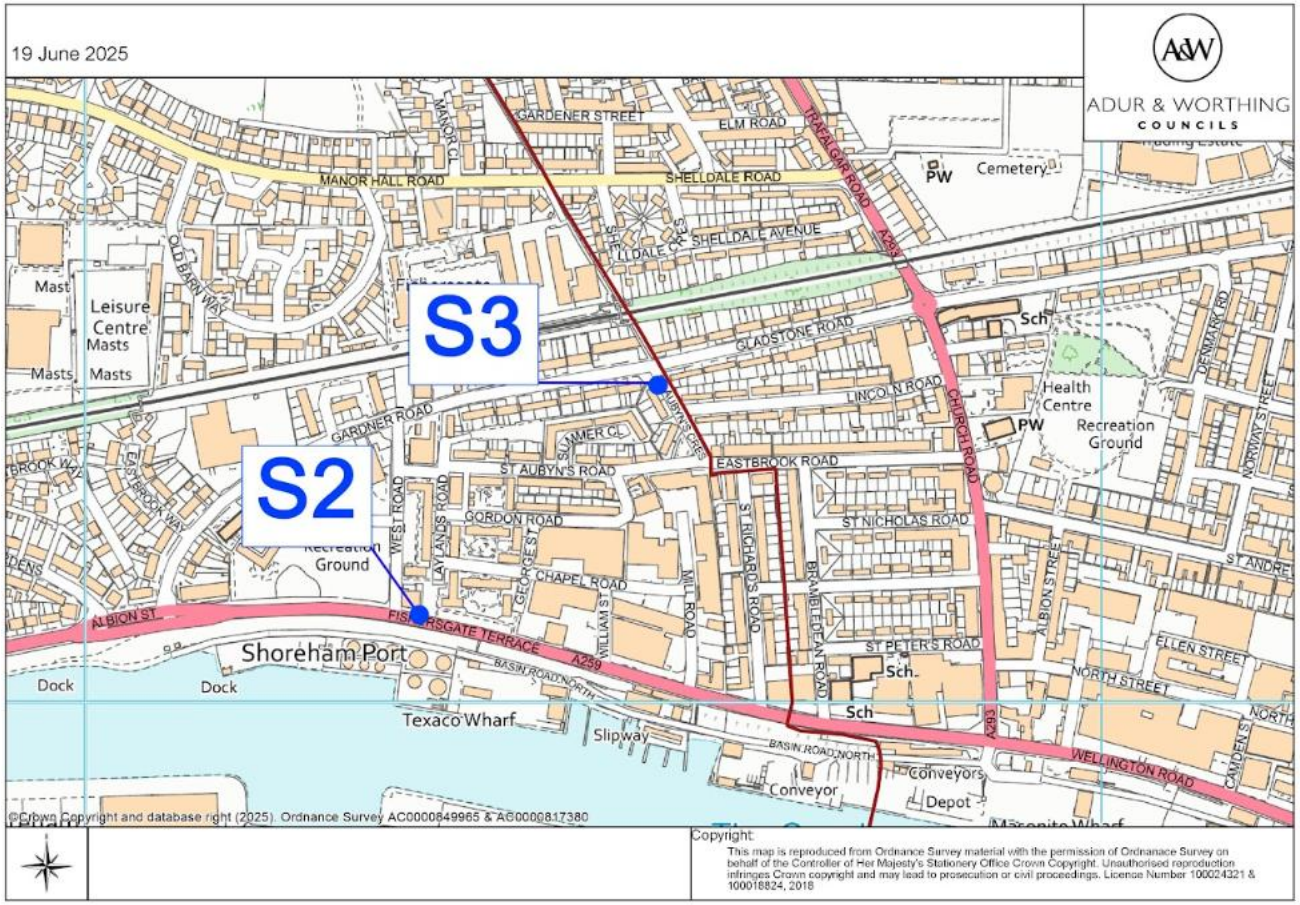
Shoreham-by-Sea



Southwick


19 June 2025
ADUR & WORTHING COUNCILS
S7
S10
S9
S8
Recreation Ground
Herons Dale School
Masts
Path
Sch
HAWKINS CRESCENT
HAWKINS ROAD
MULBERRY CLOSE
UPPER KINGSTON LANE
KINGSTON BROADWAY
UPPER SHOREHAM ROAD
ROYAL GEORGE PARADE
UPPER SHOREHAM RD
KINGSTON WAY
A270
OLD SHOREHAM ROAD
QUEENS ROAD
HOLMBUSH WAY
WILBY AVE
KINGS ROAD
WINDMILL ROAD
THE DRIVE
MILLCROFT AVENUE
DOWNLAND AVENUE
KINGSTON LANE
UNDERDOWN ROAD
GREENFIELD CL
BUCKINGHAM CRESCENT
Amb Sta
F Sta
PW
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Fishersgate



Lancing


19 June 2025
ADUR & WORTHING
COUNCILS
Coombes Road
S54
New Monks Farm
Old Shoreham Road
Old Shoreham
North Lancing
S25
S44
S11
S48
S52
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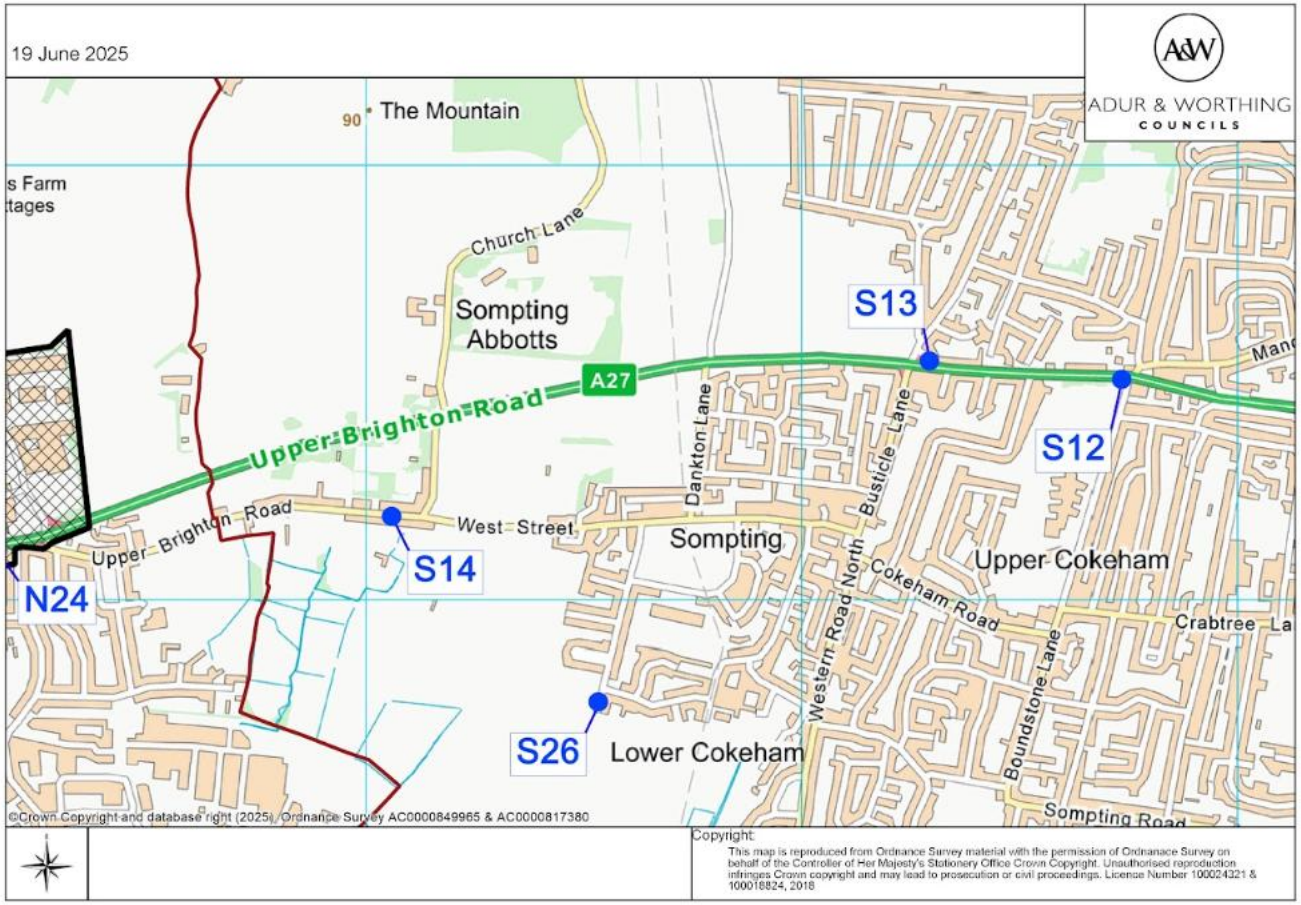
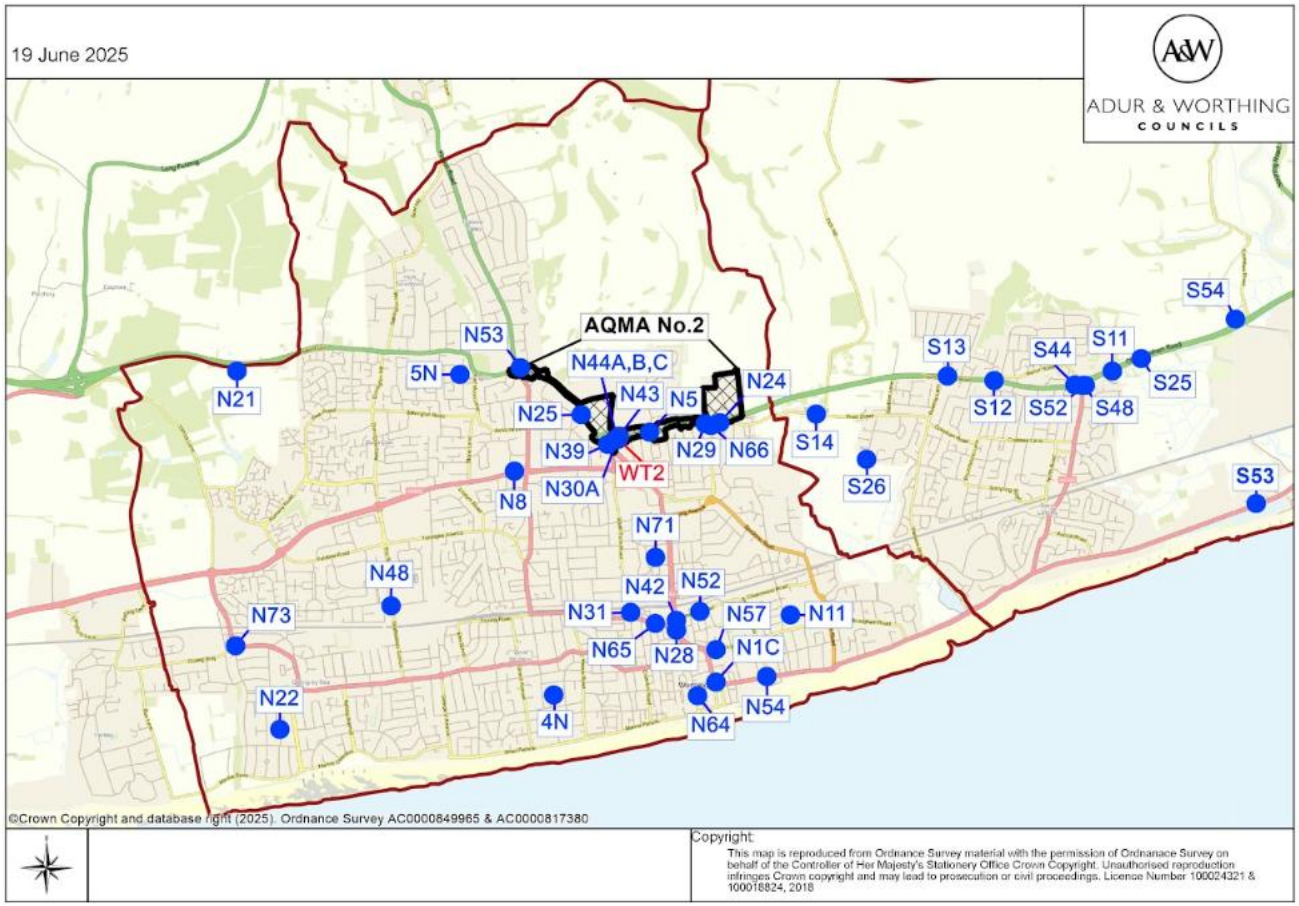
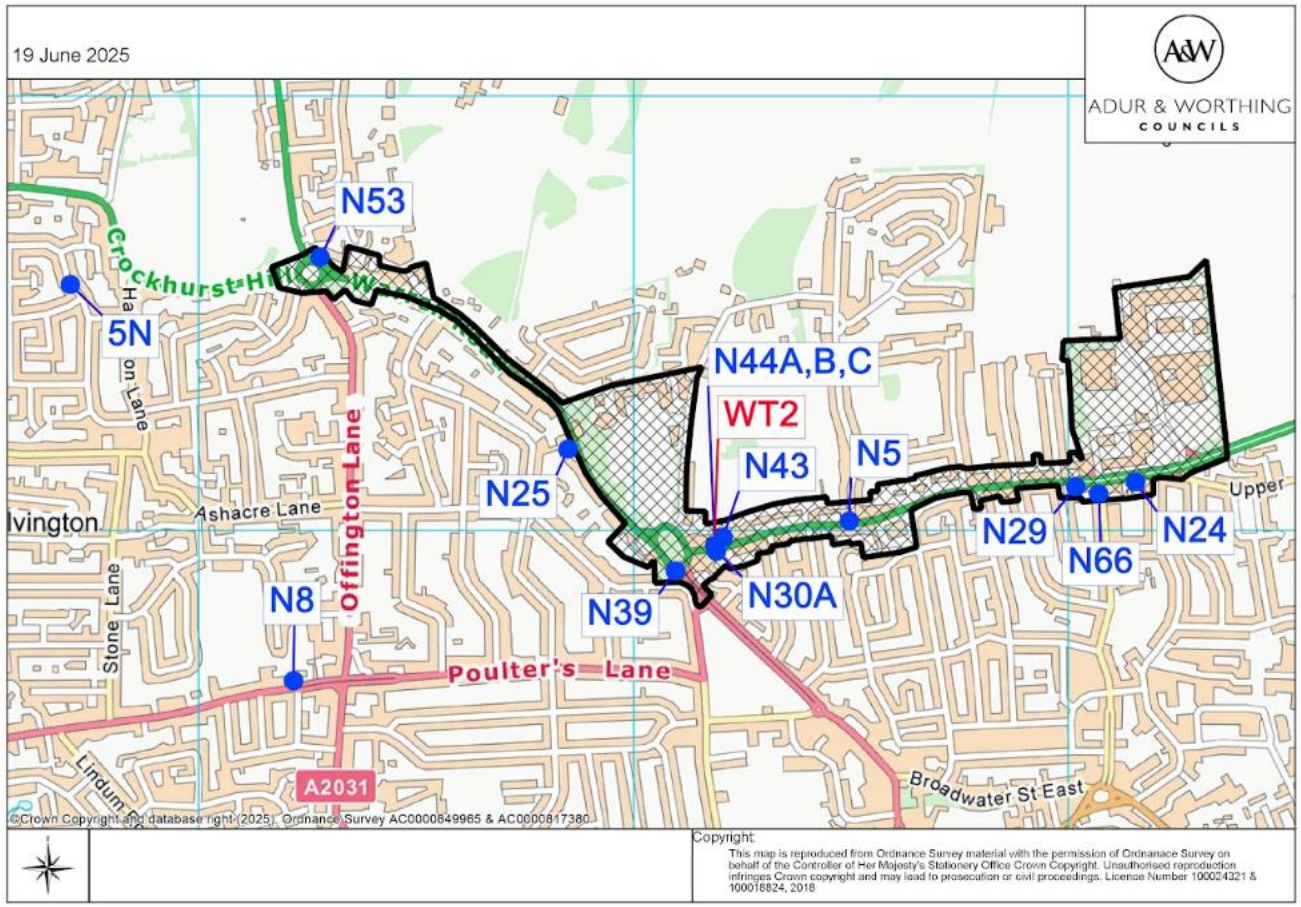

19 June 2025
ADUR & WORTHING COUNCILS
The Mountain
90
s Farm
tages
Church Lane
Sompting Abbotts
A27
Upper Brighton Road
Upper Brighton Road
West Street
Sompting
Dankton Lane
Busticle Lane
Western Road North
Cokeham Road
Upper Cokeham
Crabtree La
Boundstone Lane
Sompting Road
Lower Cokeham
S13
S12
S14
S26
N24
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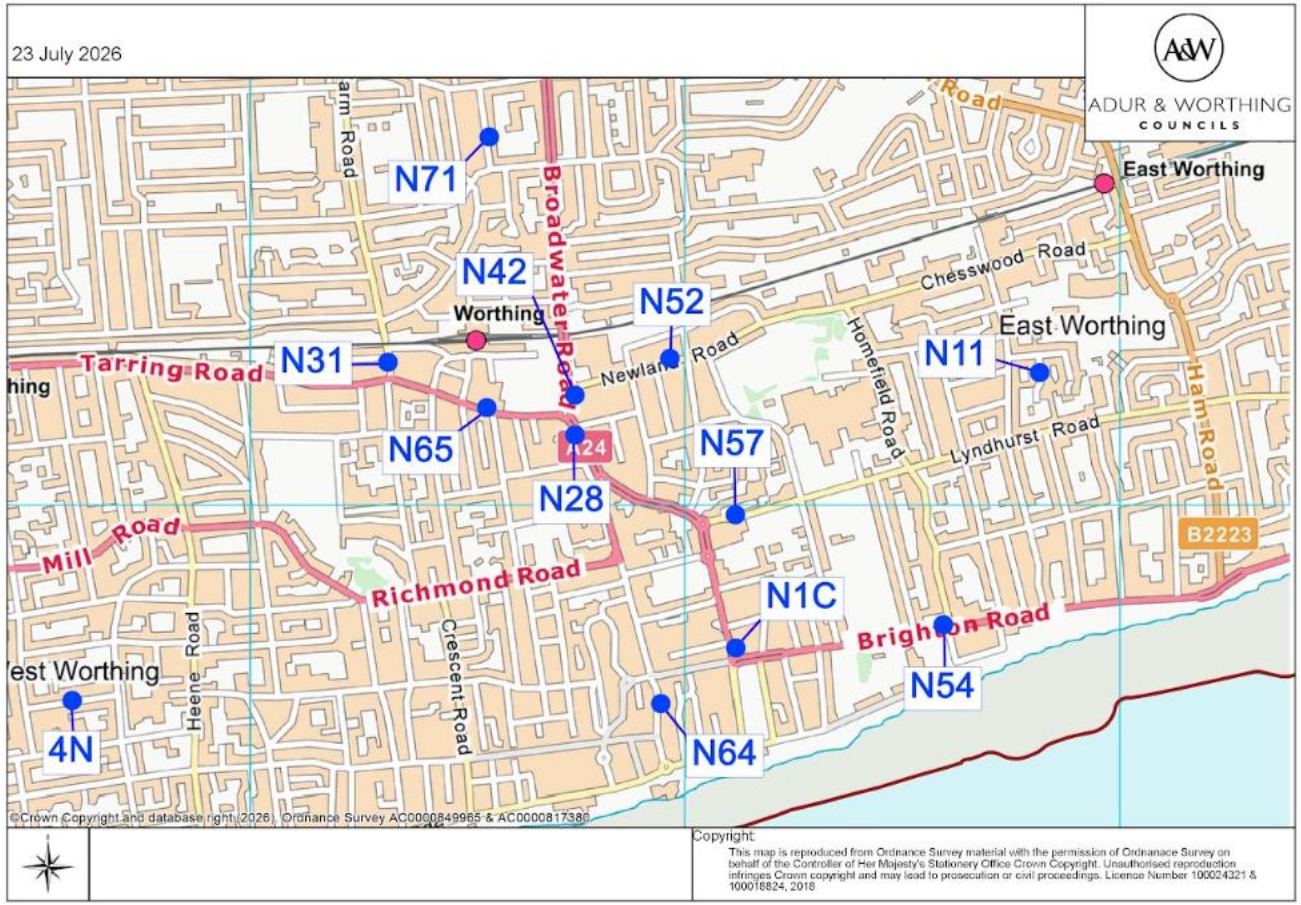
Figure D.3 – Maps of Monitoring Sites in Worthing Borough



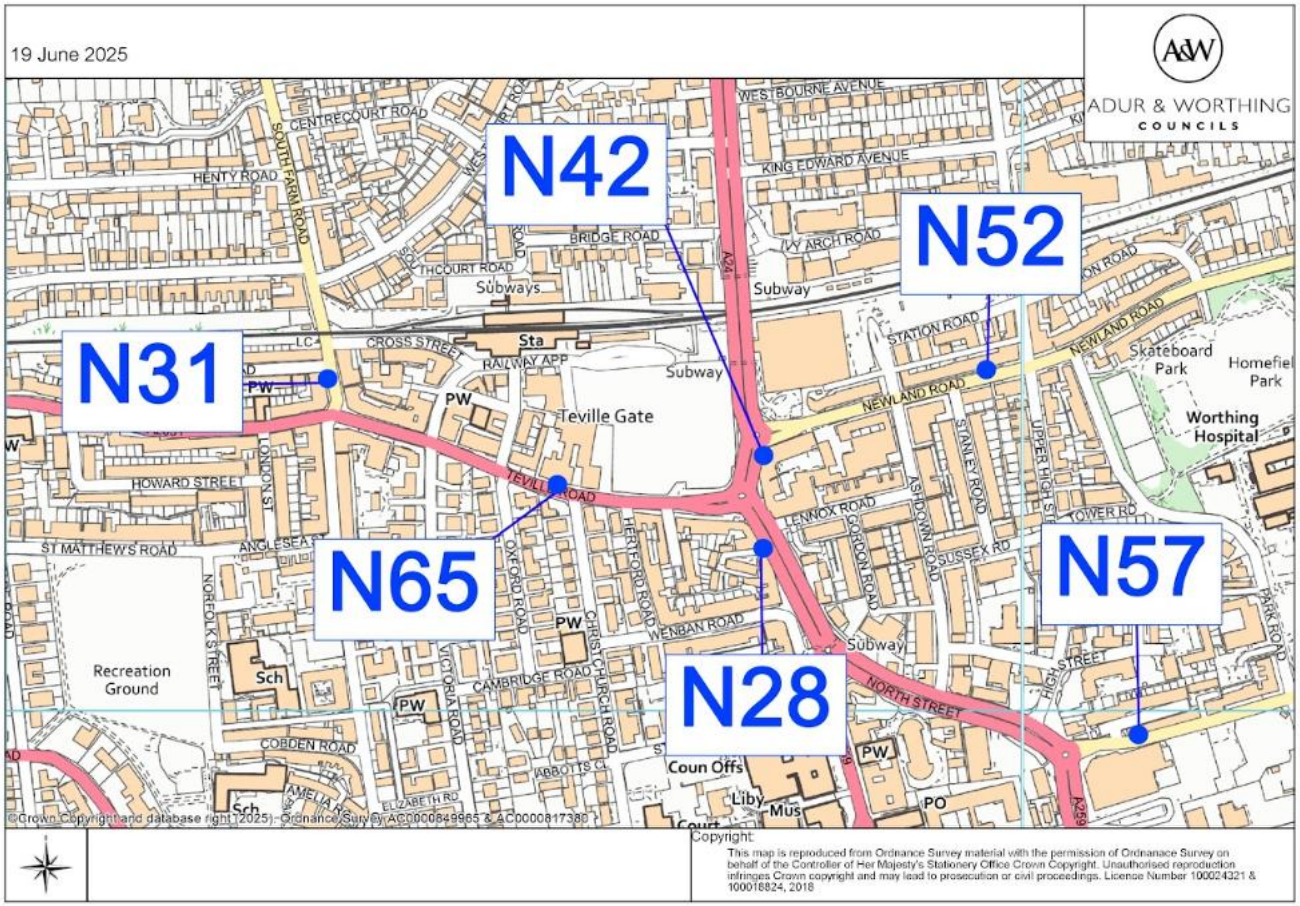
A27/AQMA No.2


19 June 2025
ADUR & WORTHING COUNCILS
N53
5N
N44A,B,C
WT2
N43
N5
N25
N29
N66
N24
N30A
N39
N8
Offington Lane
Ashacre Lane
Poulter's Lane
A2031
Broadwater St East
Upper
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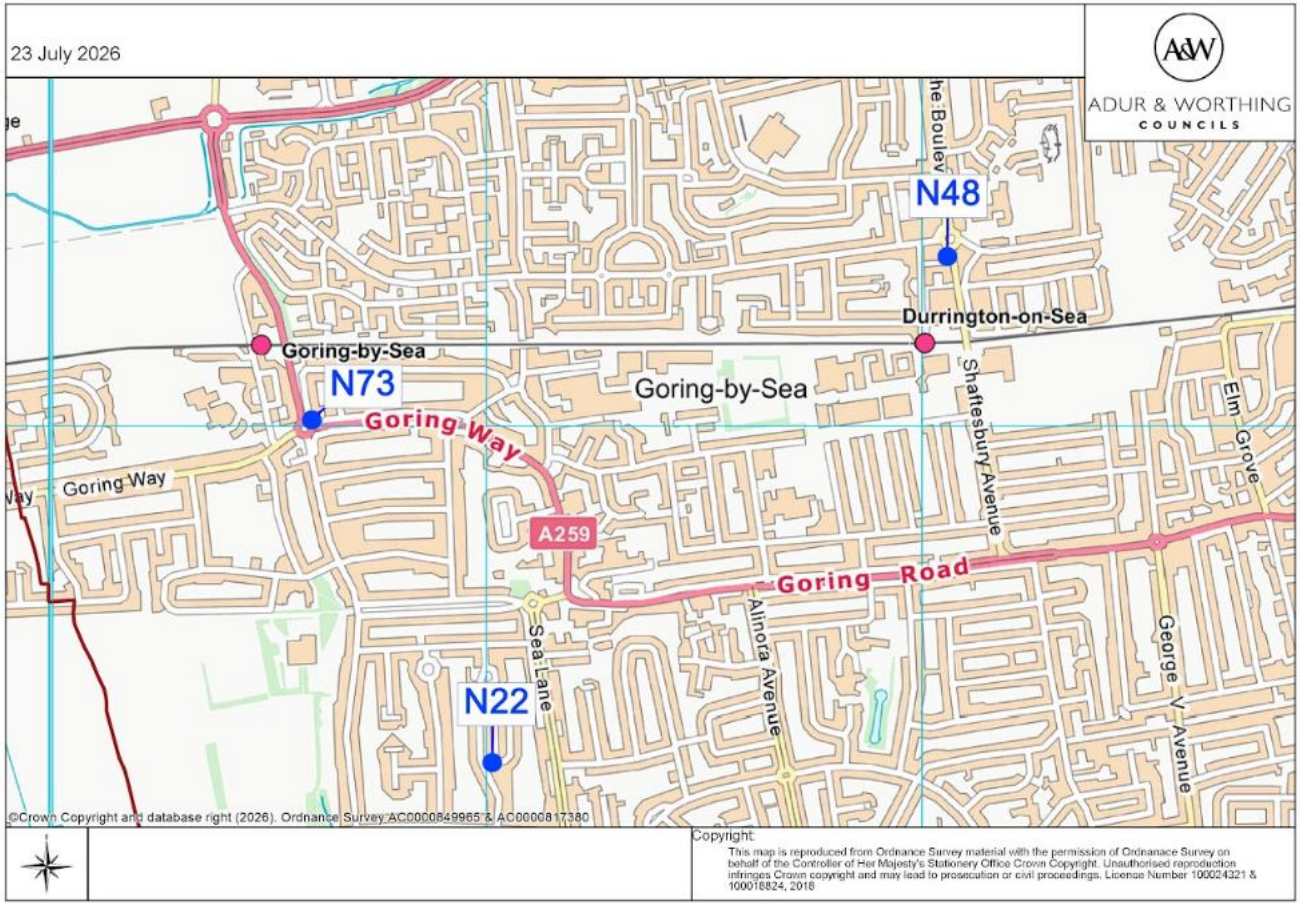
Worthing Central



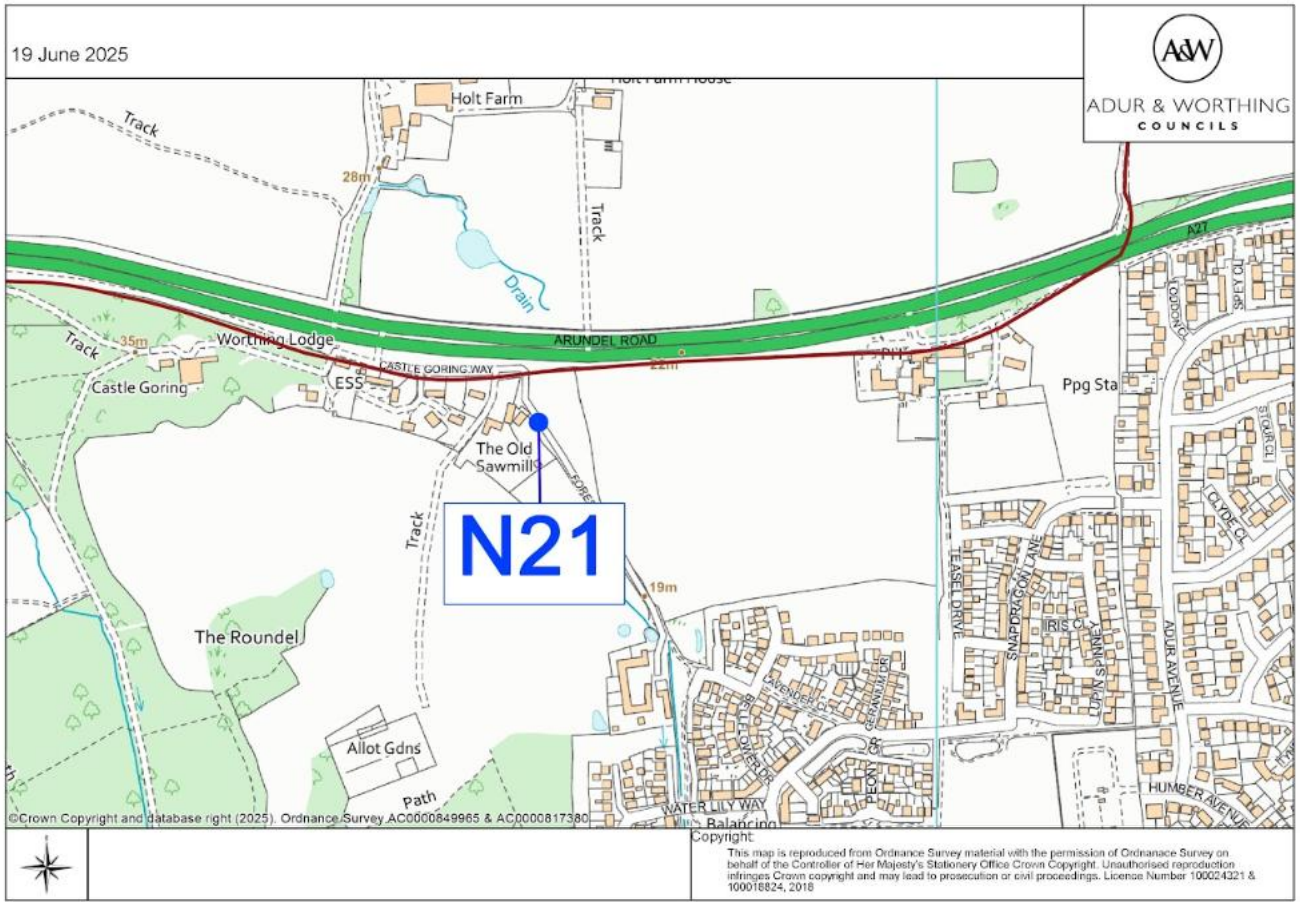
Worthing A24/A27



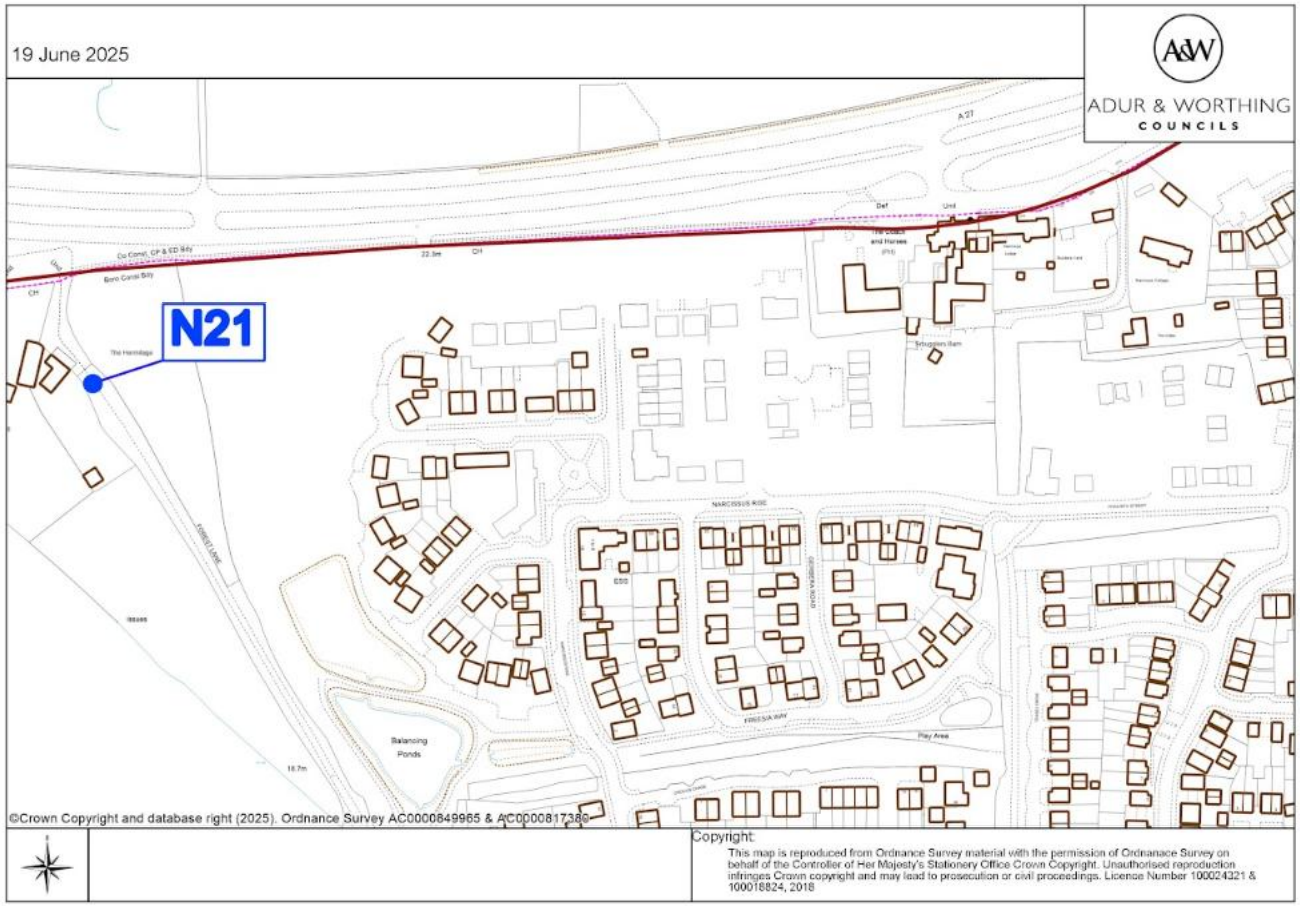
Worthing – Goring



Worthing – Goring (new builds)-old layout



Worthing – Goring (new builds)-new layout



Appendix E: Summary of Air Quality Objectives in England

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

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO_2)	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	40µg/m^3	Annual mean
Particulate Matter (PM_{10})	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	40µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO_2)	125µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO_2)	266µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

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

Appendix F: Local Traffic Data

ADUR: Traffic data has been obtained from West Sussex County Council (WSCC) for four locations in Adur, allowing a comparison of traffic numbers. The table in F.1 shows Annual Average Daily Traffic (AADT) data for these sites. Volumes decreased at each of the sites.

Table F.1 Adur Traffic Data 2016-2025

		AADT										Difference	% change
Site no.	Location	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2024-25	
35	A270 Old Shoreham Road, west of Southview Road, Southwick	23,667	23,671	23,288	23,541	N/A	21,229	22,806	22,837	23,535[17]	23,303[18]	-232	-1.0
257	A259 east of New Salts Farm Roundabout, Shoreham	25,915	25,415	25,194	24,730	20,991	22,266	22,242	23,310	24,010	23,173	-837	-3.6

[17] Based on data from 12 August to 31 December 2024

[18] Based on data from 7 July 2025 to 31 December 2025

5037	A283 Old Shoreham Road, o/p no.138, Shoreham	13,665	13,659	13,775	12,087	10,324	11,261	11,124	10,668	12,108	12,028	-80	-0.7
5036	A259 High Street, East of Middle St, Shoreham	No data	No data	No data	No data	No data	No data	15,120	15,332	15,605	14,993[19]	-612	-4.1

WORTHING: Traffic data has been obtained from WSCC for six locations in Worthing. Table F.2 shows Annual Average Daily Traffic (AADT) data for these sites. Missing data for some years means it is difficult to reach conclusions on any changes. We will review these next year.

Unfortunately despite repeated requests for data, National Highways did not respond.

[19] Based on data from 1 January 2025 to 27 February and from 7 May 2025 to 9 July 2025

Table F.2 Worthing Traffic Data 2016-2025

		AADT										Difference	% change
Site no.	Location	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2024-2025	
5018	Marine Parade, west of Prospect Place	16849	16,467	16,055	16,084	14,242[20]	14,204	14,777	14,878	14,477[21]	14,886	409	2.7
5013	A259 Brighton Road, west of Western Road	-	-	-	-	-	27,138	28,065	27,927	No data	27,535		
5015	B2223 Sompting Ave (o/s no. 22)	15,755	15,514	14,789	15,612	12,813	14,149	13,797	13,461[22]	No data	13,816[23]		
5014	A259 Richmond Road, east of Salisbury Road	13,146	13,269	13,091	12,794	No data	11,949[24]	11,685	11,314	11,972	11,645[25]	-327	-2.8

[20] based on data from 25 May 2020 to 31 December 2020

[21] based on data from 1 January 2024 to 6 August 2024

[22] based on data from 1 January 2021 to 31 May 2021

[23] based on data from 15 January 2025 to 4 November 2025

[24] based on data from 17 March 2021 to 31 December 2021

[25] based on data from 1 January 2025 to 9 September 2025

2857	A2031 Teville Road, west of Christchurch Road	13,972	13,781	13,660	13,506	No data	No data	No data	No data	No data	12,967		
5017	Lyndhurst Road, o/s hospital, east of Park Road	12,545	12,328	11,581[26]	11,687	8525[27]	10,015[28]	No data	No data	11,140[29]	No data		

[26] based on data from 13 August 2018 to 31 December 2018

[27] based on data from 2 March 2020 to 31 December 2020

[28] based on data from 1 March 2021 to 21 June 2021

[29] based on data from 27 January 2024 to 15 Dec 2024

Glossary of Terms

Abbreviation	Description
AADT	Annual Average Daily Traffic - the total volume of vehicular traffic on a road in a year, divided by 365 days.
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

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