



Approval of Air Quality Action Plans (AQAPs) for Bridgnorth and Shrewsbury Air Quality Management Areas

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1. Synopsis

This report presents the Air Quality Action Plans (AQAPs) for Bridgnorth and Shrewsbury, developed by Shropshire Council to address air quality issues and improve public health.

2. Executive Summary

2.1. Healthy Environment and Healthy People are key objectives of the Shropshire Plan and it commits to providing cleaner air and healthier communities with less inequalities. This report outlines the actions that Shropshire Council will deliver to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to Shrewsbury and Bridgnorth.

2.2. Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.

- 2.3. Where the Council find areas that exceed the national air quality objective levels it must declare an Air Quality Management Area and put an Action Plan in place to reduce pollution to compliant levels. Shropshire Council has two Air Quality Management Areas (AQMAs) in respect of the annual mean objective for nitrogen dioxide. The AQMAs are in Shrewsbury and Bridgnorth, a separate AQAP has been developed for each area.
- 2.4. The plans outline measures to reduce nitrogen dioxide (NO₂) levels and promote sustainable transport between 2024 and 2029. They have been produced to fulfil our statutory duties required under the Local Air Quality Management Framework under Part IV of the Environment Act 1995. Those duties include that the Council must set out how it will exercise its functions to secure compliance with the relevant air quality standards and objectives, set out measures, and a date by which each measure will be implemented.
- 2.5. The two action plans have been summarised below:

Shrewsbury AQAP

- 2.6. The Shrewsbury AQMA (attached in appendix 1) covers the entire of Shrewsbury town, however it should be noted that the exceedances for the last four years have only been observed along Castle Foregate. As such the measures detailed will look to tackle this issue.
- 2.7. Shropshire Council undertake monitoring through a network of diffusion tubes; the highest concentration of NO₂ within the AQMA at the time of declaration was 86µg/m³. In 2022 there were two exceedances of the annual mean air quality objective of 40µg/m³ of NO₂, both of these locations were along Castle Foregate. The concentrations for the past five years show an overall decreasing trend from 54.0 µg/m³ in 2017 to 42.8 µg/m³ in 2022.
- 2.8. The action plan has identified the following measures to achieve these reductions:
- a. Traffic Management at Castle Foregate - changes to simplify the road layouts and create a one-way gyratory system are currently taking place which are expected to reduce congestion through the town centre and improving free flowing traffic.
 - b. Anti Idling signage and enforcement outside the station
 - c. Increase Parking Charges - Within the town centre parking charges have been revised to increase charges within the river loop and decrease charges outside the loop. E-bikes, scooters and rickshaws are proposed to be available in the future outside the river loop to travel into the town centre.
 - d. Local Cycling & Walking Infrastructure Plan (LCWIP) adopted in 2023 - many of the proposed cycling and walking infrastructure projects are proposed to be introduced within Shrewsbury which will encourage the use of sustainable mode of transport.
 - e. North West Relief Road – work is ongoing to progress the NWRR which is expected to reduce traffic travelling through Shrewsbury. This will reduce traffic through the AQMA and improve air quality within Shrewsbury.
 - f. Park & Ride – improvements in Park and Ride facilities
 - g. Smithfield redevelopment – promoting walking and cycling.

- 2.9. The greatest reduction in NO_x emissions is predicted to be achieved by the Castle Foregate Gyrotory measures with a 15.2ug/m³ NO₂ Concentration reduction at worst case monitoring location. The NWRR is predicted to give a 4.95 µg/m³ NO₂ Concentration reduction, park & ride to give 0.5-1ug/m³ and all other measures less than 0.5ug/m³ reduction.
- 2.10. The Detailed modelling report estimates that compliance would be achieved by 2029 with only national measures being taken into account. It is estimated that with the implementation of the gyrotory measures alone the relevant objective(s) are anticipated to be attained by 2025.

Bridgnorth AQAP

- 2.11. The Bridgnorth air quality action plan (attached in appendix 2) is an area encompassing Pound Street and the junction of Whitburn Street and Salop Street. The AQMA was designated in 2005 for the exceedance of the annual mean NO₂ air quality objective.
- 2.12. The highest monitored concentration of NO₂ within the AQMA was 54.1µg/m³ in 2010. In 2022 there were two exceedances of the annual mean air quality objective of 40µg/m³ both were located on Pound Street where concentrations of 47.8µg/m³ and 41.5ug/m³ were recorded in 2022. However, concentrations for the past five years show an overall decreasing trend.
- 2.13. The necessary reduction in road NO_x emissions required to bring the current AQMA into compliance has been modelled to require a 32.6% reduction in road NO_x. The action plan has identified the following measures to achieve these reductions:
- a) School Travel Plans – promoting alternative travel options.
 - b) Local Cycling and Walking Infrastructure Plan (LCWIP) – Cycle and Walking Path on Whitburn Street.
 - c) Bypass Signage – directing traffic to the bypass rather than through town.
 - d) Traffic Regulation Order to minimise the number of HGVs and LGVs that travel through Bridgnorth.
 - e) Automatic Number Plate Recognition (ANPR) system to assist in enforcing the TRO as at (d) for LGV & HGV along Pound Street.
- 2.14. The greatest reduction in NO_x emissions is predicted to be achieved by the improvement in bypass signage measures with a 1.2 - 2.4ug/m³ NO₂ Concentration reduction at worst case monitoring location. The school travel plans, LCWIP, ANPR and traffic regulation order are predicted to give a less than 0.5µg/m³ NO₂ concentration reduction.
- 2.15. With the decreasing trend in NO₂ concentrations within the AQMA, the Detailed modelling report estimates that compliance would be achieved by 2028 with only national measures being taken into account. It is estimated that with the implementation of the AQAP measures the relevant objective(s) are anticipated to be attained by 2027.

3. Recommendations

- 3.1. That Cabinet agrees to:

- a) adopt the Shrewsbury Air Quality Action Plan and that the measures detailed within the plan be implemented where possible.
- b) Adopt the Bridgnorth Air Quality Action Plan and that the measures detailed within the plan be implemented where possible.
- c) Delegate responsibility for monitoring and reporting on air quality levels and the ongoing implementation of the plan to the Executive Director of Health Wellbeing and Prevention, in consultation with the Portfolio Holder for Planning and Regulatory Services.
- d) Delegate responsibility for the implementation of measures detailed within each action plan to the Assistant Director of Infrastructure and Growth, in consultation with the Portfolio Holder for Highways to include, but not limited to, finalising the delivery of the action plan, securing funding, and consulting stakeholders on details of proposed measures.

Report

4. Risk Assessment and Opportunities Appraisal

- 4.1. The Council received a final warning letter from DEFRA in July 2024 for failing to complete the review of the AQAPs within the required timescales. An extension to the deadline has been granted until 31st December 2024. If air quality action plans are not adopted by this date, the Council will receive a Section 85 Secretary of State direction specifying action that needs to be taken.
- 4.2. A further Equality, Social Inclusion and Health Impact Assessment (ESHIA) has been undertaken following the consultation process, and is attached as appendix 3. The initial screening in July had indicated an anticipated low to medium positive equality impact across all nine Protected Characteristic groupings as defined in the Equality Act 2010, as well as for the grouping of veterans and serving members of the armed forces and their families, as defined in the Armed Forces Act 2021. This is due to the anticipated health impact benefits of better air quality for individuals across all groupings, particularly for children and younger people, older people, and people with a range of disabilities and/or limiting long term illnesses including respiratory conditions.
- 4.3. Additionally, the same positive impacts were anticipated for those for whom the Council seeks to have due regard to need through our tenth category of consideration of Social Inclusion. This is not an Equality Act category, rather representing our efforts as a Council to consider the needs of households in Shropshire and the circumstances in which they may find themselves. We similarly anticipate positive impacts for any young people leaving care who may be affected by and through these AQAP actions, as they are also a local grouping for whom we have consideration.

- 4.4. Officers have ascertained following the consultation that overall, the anticipation remains for positive equality and social inclusion impact on the health and quality of life of people who live in, work in, or study in Bridgnorth, Shrewsbury, and the wider Shropshire area, as well as visitors. Respondents were invited to answer questions about both the Shrewsbury and the Bridgnorth plans, and some chose to comment on both plans. While 56 respondents answered the survey, only about 25 chose to answer the optional demographic question. More respondents identified as male than female, though 12% preferred not to provide their gender. The ages reported by respondents (only 25 answered this question) were fairly well distributed. In terms of responses from people with other protected characteristics, three respondents indicated that they have a long-term disability or illness, and one indicated that they are a family member of a serving member of the armed forces
- 4.5. There will need to be ongoing efforts, in this and future related projects, to engage with people in the Protected Characteristic groupings, particularly where low levels of responses to public consultation have been received to date, notably from and for people with disabilities, and children.
- 4.6 The indications are that there will be an anticipated low to medium positive health and wellbeing impact, due to the benefits of better air quality for individuals across all groupings, particularly for children and younger people, older people, and people with a range of disabilities and/or limiting long term illnesses including respiratory conditions. In Bridgnorth, concerns raised about the plans focused largely on the adequacy of traffic management measures and on the safety risk of removing pedestrian crossings, especially for more vulnerable groups such as older people, people with disabilities, and children. In Shrewsbury, respondents also emphasized the need to consider accessibility for people with disabilities and older people and offered alternative suggestions to be considered in the plan, like improving public transport and creating more green spaces. The common theme among these responses was to emphasise the need for measures to take into account accessibility and mobility as part of the plans
- 4.7 Actions within the two AQAPs may also benefit neurodiverse individuals through public space improvements that make such spaces safer and more accessible for everyone including those with neurodiverse conditions, for whom sense of smell and anxieties over traffic noise and speeding traffic may be heightened. Furthermore, there could be a potential drop in referrals to health and social care services arising from better physical and mental health because of better air quality.
- 4.8 The AQAPs will ensure that Shropshire Council will meet its statutory duties required by the Local Air Quality Management framework and also achieves the objectives of both the Shropshire Plan.
- 4.9 The following table details the specific risks associated with the proposals and the proposed mitigation measures.

4.10 Risk table

<i>Risk</i>	<i>Mitigation</i>
If action plan measures are not implemented, there will be continued high levels of NO ₂ emissions, leading to non-compliance with air quality objectives and continuing effect on public health.	Ensure timely implementation of measures within each AQMA. Regular monitoring NO ₂ levels within the AQMAs to ensure levels are reducing as predicted and that these reduced levels are being maintained.
<p>Reputational risk:</p> <ul style="list-style-type: none"> • Non-compliance with statutory duties leading to poor health outcomes. • outcomes and interventions proposed are perceived not to be appropriate to the local context. 	<ul style="list-style-type: none"> • It achieves compliance with statutory duties • The AQAP has been developed with key stakeholders from across the public, private and voluntary sector, with stakeholders helping to develop the key principles and shape the strategic interventions as part of a Steering Group. The result of the public consultation is provided • within appendix 4 & 5 “Public Consultation Report” <p>Some amendments were made to the action plans in response to consultation comments and final AQAPs demonstrates broad agreement with the proposals.</p>
Limited funding and resources could delay or prevent the implementation of key measures, impacting the overall effectiveness of the AQAP.	Some of the actions identified have already been funded via the levelling up funds, Active Travel England and DfT. Funding for other actions, many of which are relatively low-cost traffic management interventions, will require funding through grants, via section 106 or the Community Infrastructure Levy.
Interventions fail to deliver air quality improvements	Modelling and source apportionment assessments, carried out by specialist consultants were carried out to predict the likely effect of the proposed actions. NO ₂ levels will continue to be monitored within the air quality management areas to assess the impacts of actions taken.
Traffic regulation orders (TROs) and changes to traffic flow could negatively impact local businesses by restricting access and reducing customer footfall.	Before implementing any TROs we will engage with local businesses to understand their concerns and develop solutions that minimize disruption. Consider phased implementation and provide clear communication about the benefits of improved air quality.

5. Financial Implications

- 5.1. Shropshire Council is currently managing an unprecedented financial position as budgeted for within the Medium Term Financial Strategy approved by Council on 29 February 2024 and detailed in our monitoring position presented to Cabinet on a monthly basis. This demonstrates that significant management action is required over the remainder of the financial year to ensure the Council's financial survival. While all Cabinet Reports provide the financial implications of decisions being taken, this may change as officers review the overall financial situation and make decisions aligned to financial survivability. Where non-essential spend is identified within the Council, this will be reduced. This may involve scaling down initiatives, changing the scope, delaying implementation, or extending delivery timescales.

5.2 The UK Health Security Agency (formally Public Health England) has estimated that the costs of air pollution in England to health and social care services could reach between £5.3 and 18.6 billion between 2018 and 2035. Shropshire Council is committed to reducing the exposure of people in Shropshire to poor air quality.

5.2. Many of the measures proposed within the AQAPs are part of wider strategic measures that already have been agreed in principle and have already obtained complete or partial funding i.e. the Station Gyrotory scheme, NWRR, Riverside development, LCWIP and school travel plans. The remaining actions are relatively low-cost traffic management interventions, it is anticipated that these will be funded through grants, via section 106 or the Community Infrastructure Levy.

6. Climate Change Appraisal

6.1. The action plans propose a number of measures to reduce emissions of NOx through reducing congestion and encouraging a modal shift towards more environmentally friendly methods of transportation, such as walking and cycling. These measures will reduce energy and fuel consumption and hence have a positive impact in terms of climate change.

7. Background

7.1. Air quality is the biggest environmental threat to health. Since 2010 we have seen significant improvements in air quality; fine particulate matter has fallen by 10%, emissions of nitrogen oxides have fallen by 45% and sulphur dioxide by 73%. It is important to take continued action to reduce communities' exposure to air pollution.

7.2. Where there is an AQMA declared for an exceedance of an air quality objective, it is a legal requirement for the Council to have an AQAP in place (Environment Act 1995 as amended). The purpose of an AQAP is to set out the plan to meet local air quality objectives and ensure that compliance is maintained. Failure to produce an AQAP and regularly review the actions in it risks exposing the local community to poor air quality.

7.3. The Local Air Quality Management (LAQM) Statutory Policy Guidance 2022 states that following the declaration of an AQMA, a final AQAP should be produced within 18 months and then reviewed every five years as a minimum, to ensure air quality improvement measures remain effective, proportionate and feasible.

7.4. These action plans replace the previous action plans produced in 2008. They bring the format of the AQAPs in line with current guidance and comply with the requirements of The Environment Act 1995 (as amended in 2021).

8. Additional Information

8.1. A steering group was established with officers from Shropshire Council to identify and agree measures for inclusion within the AQAP which would benefit air quality within the Shrewsbury AQMA. The steering group includes officers which special

interests in Environmental Protection, Climate Change, Highways, Communication, Policy, Economic Growth and Passenger Transport. These specialities all have an influence on air quality within Shrewsbury and therefore it is important to evaluate the most effective measures.

- 8.2. The implementation of most of the measures contained in the action plans falls outside of the remit of the Environmental Protection service, with a majority requiring implementation by The Councils Infrastructure and Growth department. The steering group will continue to communicate at regular intervals following the adoption of the AQAP. This is essential to provide progress reports on individual actions in relation to the AQAP measures, discuss any key lessons learnt from the continual implementation of the measures and to continue to discuss any new ideas in terms of future measures and actions within the borough.
- 8.3. The local members covering the relevant parts of Bridgnorth and Shrewsbury have been consulted as part of the wider consultation process. The public consultation reports for each AQAP are attached in appendix 3 & 4.
- 8.4. Councillor Kirsty Hurst Knight, Christian Lea and Rachel Connerly were consulted and the Bridgnorth action plan has been discussed in the Bridgnorth Partnership meetings, whilst members were supportive of actions to improve air quality, they expressed concerns about the safety implications of removing zebra crossings. As a result of these comments and those from members of the public these proposed actions were removed from the plan.
- 8.5. Councillor Nat Green and Alan Mosely were consulted on the Shrewsbury action plan. The majority of actions in the Shrewsbury AQAP are part of a wider strategic scheme for which there has been significant member involvement through regular planning and progress meetings such as the Shrewsbury Big Town Plan Movement and Public Realm Strategy Steering Group.

9. Conclusions

- 9.1. This Air Quality Action Plan (AQAP) has been produced as part of the statutory duties required by the Local Air Quality Management framework. It outlines the action we will take to improve air quality in Shropshire Council between 2024 and 2029. The AQAP sets out how Shropshire Council will exercise its functions in order to secure the achievement of the air quality objectives.
- 9.2. This AQAP was prepared by Bureau Veritas on behalf of Shropshire Council with the support and agreement of the Environmental Protection service, Highways and Transportation team and Public Health team. DEFRA has been consulted on the draft AQAP and their comments have been incorporated into the final document. Consultation on the draft Air Quality Action Plan took place between July and September 2024 and comments received are addressed within the final action plans.
- 9.3. Implementation of the proposed action plans are predicted to secure compliance with the air quality objectives by 2025 in Shrewsbury and by 2027 in Bridgnorth.
- 9.4. This AQAP will be subject to an annual review, appraisal of progress and reporting to the Cabinet member for Planning and Regulatory Services. Progress each year

will be reported in the Annual Status Reports (ASRs) produced by Shropshire Council, as part of our statutory Local Air Quality Management duties.

List of Background Papers (This MUST be completed for all reports, but does not include items containing exempt or confidential information)

- Environmental equity, air quality, socioeconomic status and respiratory health, 2010
- Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006
- Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018
- Defra, Emissions Factors Toolkit – version 11.0 (2021), available at: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/>
- Shropshire Council Highways Team Traffic Counts 2023, via internal communications
- Department for Transport (DfT) Road Traffic Counts (2023) available at: <https://roadtraffic.dft.gov.uk>
- Defra, 2022, Local Air Quality Management Technical Guidance
- Defra (2024) LAQM.TG(22) Supplementary Guidance England excluding London, Determining the impact of air quality improvement measures
- Population density - Census Maps, ONS
- WSP (2024), Technical Note 1 – LUF2 and NWRR

Local Member:

Nat Green

Alan Mosely

Kirsty Hurst Knight

Christian Lea

Rachel Connerly

Appendices

Appendix 1 – Shrewsbury Air Quality Action Plan 2024

Appendix 2 – Bridgnorth Air Quality Action Plan 2024

Appendix 3 - Equality, Social Inclusion and Health Impact Assessment (ESHIA).

Appendix 4 – Shrewsbury AQAP Public Consultation Report

Appendix 5 – Bridgnorth AQAP Public Consultation Report
