

Rossendale Borough Council Air Quality Action Plan for Grane Road Haslingden

In fulfilment of Part IV of the Environment Act 1995
Local Air Quality Management
September 2025

Rossendale Borough Council

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3 Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the action we and others will take to improve air quality in Rossendale Borough Council between 2023 and 2030.

This action plan replaces the previous action plan which ran from 2017 to 2022. The two previous Air Quality Management Areas have been revoked due to a satisfactory reduction in NO2. Projects delivered through the past action plan include: renewing road signage, deprioritising roads, installation of electric charge points and a new taxi licensing policy.

A new Air Quality Management Area was declared in December 2022. This covers thirteen pavement fronted terraced properties between 240 to 268 Grane Road Haslingden BB4 4PB

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^{1,2}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³. Rossendale Borough Council is committed to

¹ Environmental equity, air quality, socioeconomic status and respiratory health, 2010

² Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

³ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

reducing the exposure of people in Rossendale Borough Council to poor air quality in order to improve health.

We have developed proposed actions that can be considered under 4 broad topics:

- Alternatives to private vehicle use
- Promoting low emission transport
- Promoting travel alternatives
- Public information

In this AQAP we outline how we plan to effectively tackle air quality issues within our control. However, we recognise that there are a large number of air quality policy areas that are outside of our influence (such as vehicle emissions standards agreed in Europe), but for which we may have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond Rossendale Borough Council's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Public Protection Unit of Rossendale Borough Council with the support and agreement of the following officers and departments:

Susan Chadwick Public Protection Manager

Ann Storah Rossendale Borough Council Forward Planning

Kwabena Poku Rossendale Borough Council Climate Change Officer

This AQAP has been approved by:

Andy Taylor Head of Operations Rossendale Borough Council

This AQAP has not been signed off by a Director of Public Health.

This AQAP will be subject to an annual review and appraisal of progress. Progress each year will be reported in the Annual Status Reports (ASRs) produced by Rossendale Borough Council, as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP please send them to envhealth@rossendalebc.gov.uk

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1 Introduction

This report outlines the soft actions that Rossendale Borough Council will deliver in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at the latest and progress on measures set out within this Plan will be reported on annually within Rossendale Borough Council's air quality ASR. The air quality management area will be revoked if levels reduce to 10% under the annual objective of 40µg/m³ for 3 years or more.

All the 2024 monitoring data is below the objective.

2 Summary of Current Air Quality in Rossendale Borough Council

Air quality in Rossendale Borough Council is improving. Two previous Air Quality Management Areas where revoked December 2022 when the nitrogen dioxide levels fell below the Government level for action.

During 2023 the air quality in Air Quality Management Area 3 along a small section of Grane Road in Haslingden has shown a dramatic improvement from 50.4 μ g/m³ in 2022 at declaration to 38.8 μ g/m³ in 2024 and the trajectory is promising for continued reduction. The 2024 results are all under the objective.

3 Rossendale Borough Council's Air Quality Priorities

3.1 Public Health Context

It is a statutory requirement for local authorities to regularly review and assess air quality in their area and take action to improve air quality when objectives set out in regulation are not met.

3.2 Planning and Policy Context

The following are supporting planning and policy documents that will contribute toward improvements in air quality in our local authority area.

East Lancashire Strategic Cycle network see <u>East Lancashire Cycle Way</u> - <u>Lancashire Enterprise Partnership (lancashirelep.co.uk)</u>

East Lancashire Highways and Transport Plan The East Lancashire highways and transport masterplan - Lancashire County Council

Rossendale Borough Council Climate Change Strategy Climate Change | Rossendale Borough Council

<u>Local Plan – Rossendale Borough Council</u> see <u>Rossendale Local Plan 2019 to 2036</u> | Rossendale Borough Council

3.3 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within Rossendale Borough Council's area.

Primary source of NO₂ is emission from road vehicles. In order to mitigate the problem, Rossendale Borough Council is tasked with identifying options that will aim to reduce emissions of nitrogen oxides (as a precursor to the formation of nitrogen dioxide) and primary NO₂ from vehicles, and therefore reduce concentrations of NO₂ experienced locally. The primary contributors to NO₂ in this main road location are cars and taxis and light goods vehicles (LGV).

The latest annual average daily flow traffic data for Grane Road B6232 is 2019 and is made up of the following:

Table 1 DfT traffic count data for Grane Road (2019)

Count Method	wheeled motor vehicles	Cars and taxis	Buses and coaches	Light Good Vehicles	Heavy Goods Vehicles	All motor vehicles
Manual count	75	11134	37	2946	212	14405

A source apportionment exercise was carried out in support of this action plan for 2023. The 2019 data above was used with 2023 emission factors. Whilst this data is pre-COVID pandemic, it is assumed that the fleet splits will still be valid even if the total count may have changed. The analysis is undertaken on a proportional basis, and thus the total traffic count is not as important as the fleet mix. The source apportionment identified that within the AQMA, the percentage source contributions were as shown in Figure 1:

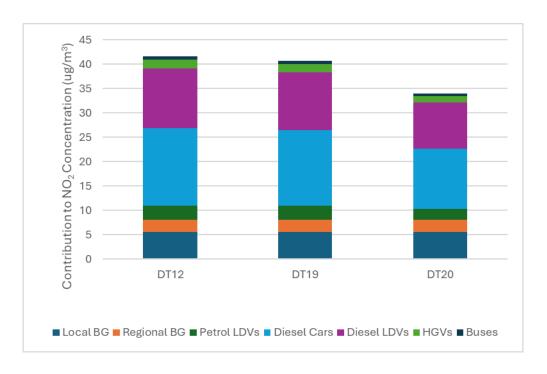


Figure 1 Source Apportionment (2023) for the diffusion tubes in the AQMA (2019 traffic data)

Diesel cars are the highest contributor to NO₂ concentration, with diesel LDVs being the next highest contributor. Actions within this plan should be therefore targeted at private vehicles, particularly (in the case of NO₂) the diesel fleet.

3.4 Required Reduction in Emissions

A calculation has been undertaken at the highest diffusion tube DT4 (formerly DT12) to understand the percentage reduction in NO_x required to meet the objective of 40 $\mu g/m^3$, following guidance in LAQM.TG(22) (Box 7-6). Using the 2023 emission factors, a 6.4% reduction in road NOx is required to meet the air quality objective, as shown in 2.

Table 2 Emission reduction calculation for 2023 (DT12) now DT 4

	Total NO ₂	Background NO ₂	Road NO _x (from Defra calculator)
2023	41.6	8.1	92.33
Objective	40	8.1	86.38
Road NO _x reduction required (μg/m³)			5.95
Road NO _x reduction required - %			6.44

Using the emissions factor toolkit with the traffic for Grane Road as shown in Table 1, the natural reduction in emissions between 2023 and 2024 is found to be 10% due to fleet improvements. As such it would be expected that concentrations at DT4 (formerly DT12) for 2024 (not taking into consideration any changes in meteorological conditions) will be below the objective and this is correct. The annual mean value was $38.8 \, \mu g/m_{\odot}^3$.

However, although compliance with air quality objectives is important, from a health perspective, a general reduction in emissions of the key pollutants (including PM₁₀ and PM_{2.5}) may provide better health outcomes than focussing on hotspot locations. For this reason, wider, more strategic measures have been included, including those tackling PM_{2.5} such as those aimed at changing behaviour in relation to solid fuel burning through increasing awareness, and the Council will be working towards ongoing improvements in pollutant concentrations below the current air quality objectives.

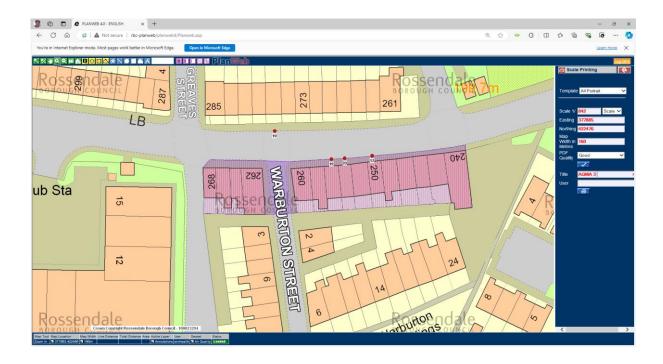


Figure 2 Location of AQMA 3 and the diffusion tubes within it

3.5 Key Priorities

- Priority 1 Promoting Low Emission Transport
- Priority 2 Promoting Travel Alternatives
- Priority 3 Public Information
- Priority 4- Alternatives to Private Vehicle Use

4 Development and Implementation of Rossendale Borough Council AQAP

4.1 Consultation and Stakeholder Engagement

In developing this AQAP, we have worked with the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table 5

A summary of the consideration of the impact of the measures, and whether they can be quantified is set out in table 3 below, with the criteria used as follows:

Impact Very Low - No indirect or direct impacts on air quality

Low- would reduce emissions, but not measurable by air quality monitoring and would be termed 'negligible' using industry standard guidance for modelling the impacts of development

Medium- a change could be predicted using an air quality model such as ADMS, but unlikely to be measurable by air quality monitoring, for example an improvement of up to 5% of the annual mean objective for NO₂ (2 µg/m³)

High- a change would potentially be monitored using standard monitoring techniques ie an improvement of more than 5% of the annual mean objective for NO₂ (2 μg/m³). It should be noted that the impact is largely based on NO₂

In order to provide an indication of cost effectiveness Table 4 has been determined using best professional judgement to clearly set out impact from table 3 (ie effectiveness) and cost in a qualitative way. Although the impacts for all the actions is judged to be low individually, as a package, and over a number of years, the impacts of the measures will cumulatively be larger.

Table 3 Summary of considerations

Action No.	Action	Assumptions for Quantification	Assumed air quality impact
1	Promotion of Car and lift sharing schemes	Unclear how many cars would be taken off the road by an increased use of lift sharing, therefore difficult to quantify, but judged to be low.	Low
2	Promotion of car clubs	Unclear how many cars would be taken off the road by an increased use in car clubs, therefore difficult to quantify.	Low
3	Prioritising low emission transport	There is currently no data on what shift this might entail as will be dependent on level of interventions.	Low
4	Encourage/facilitate home working	Unclear how many cars would be taken off the road by an increased home-working, therefore difficult to quantify.	Low
5	Active travel campaign and infrastructure	Difficult to estimate the effectiveness of active travel campaigns. While there is some research undertaken	Low

Action No.	Action	Assumptions for Quantification	Assumed air quality impact
		for low traffic neighbourhoods in London ⁴ , there are no data within Rossendale which can be used to base any quantification, and low traffic neighbourhoods are just one type of measure to increase active travel. Significant investment would be required to have a medium impact on emissions.	
6	Increase Public Awareness of air quality issues, including reducing exposure, focus on active travel and domestic solid fuel burning.	Providing information on air quality to the public would be with the aim to change behaviour, but difficult to quantify what that change might be (and hence resulting changes in emissions). Behaviour change	Low

⁴ See http://rachelaldred.org/research/low-traffic-neighbourhoods-evidence/

Action No.	Action	Assumptions for Quantification	Assumed air quality impact
		would generally require sustained awareness campaigns, with consistent clear messaging.	

Table 4 Cost effectiveness and feasibility of AQAP actions

Action No.	Action	Impact on Air Quality	Cost	Feasibility
1	Promotion of Car and lift sharing schemes	Low	Low	High
2	Promotion of car clubs	Low	Low	High
3	Prioritising low emission transport	Low	Low	High
4	Encourage/facilitate home working	Low	Low	High

Action No.	Action	Impact on Air Quality	Cost	Feasibility
5	Active travel campaign and infrastructure	Low	Low	High
6	Increase Public Awareness of air quality issues, including reducing exposure, focus on active travel and domestic solid fuel burning.	Low	Low	High

The analysis and Table 4 also accounts for the feasibility of implementing the measures, with those likely to progress given a higher priority than those which are acknowledged to be a challenge to implement. The feasibility score factors in influences such as accessibility to funding, resources being available and political backing.

Criteria to allow for the analysis of cost and feasibility are included below

Cost **Low** <£50k, **Medium** £50k-£500k, **High** >£500k

Feasibility High – measure has already been started, good political will and likely to be sufficient resources

Medium- possible to implement but may require some further feasibility work and/or additional support and resources

Low- difficult to implement, lack of political will to implement, time and resource intensive.

Table 4 – Consultation Undertaken

Consultee	Consultation Undertaken
Residents living in the AQMA	Υ
The Secretary of State	Υ
The Environment Agency	Υ
The Highways Authority	Υ
All neighbouring local authorities	Υ
Other public authorities as appropriate, such as Public Health officials	Υ
Bodies representing local business interests and other organisations as appropriate	Υ

4.2 Steering Group

The Steering group consisted of Environmental Health, Public Protection Manager, Head of Environmental Services, Forward Planning, Principal Planner, Climate Change Officer and local councillors.

5 AQAP Measures

Table 5 shows the Rossendale Borough Council AQAP measures. It contains:

- a list of the actions that form part of the plan
- the responsible individual and departments/organisations who will deliver this action
- estimated cost of implementing each action if known or applicable (overall cost and cost to the local authority)
- expected benefit in terms of pollutant emission and/or concentration reduction
- the timescale for implementation
- how progress will be monitored

NB: Please see future Annual Status Reports for regular annual updates on the implementation of these measures

As the 2024 concentrations within the AQMA are now below the objective, the majority of the actions are categorised as "soft measures" according to Defra guidance⁵. Soft measures are the interventions that focus on individual / group behavioural change and do not involve measures that directly impact infrastructure with physical changes. Soft measures are usually flexible, lower in cost, and wide-reaching in their focus. Soft measures can focus on reducing source contributions and/or exposure to air pollution, commonly involving raising awareness and/or encouraging or facilitating behavioural change.

It is usually difficult to make assumptions of the impacts of soft measures on vehicle numbers (and ages of vehicles used), and therefore they are more difficult to quantify in terms of emission reductions and as such, this has been undertaken in a

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⁵ LAQM.TG(22) Supplementary Guidance England excl. London - Determining the impact of air quality improvement measures (September 2024)

qualitative manner. Because of difficulties in quantification and 2024 compliance with air quality objectives, undertaking detailed modelling of actions is not considered proportional.

Table 5 – Air Quality Action Plan Measures

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completio n Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
1	Promotion of Car and lift sharing schemes	Alternatives to private vehicle use	Car and lift sharing schemes	2024	ongoing	Local Authority Lancashire County Council	N/A	No	Not funded	<£10k / £10k	Planning phase	Likely only a small reduction in emissions, emissions reduction can be maximised by targeting workplace schemes. Likely <1% reduction in NOx emissions.	Increased uptake of schemes (if possible to track)	Planning phase	There may be no schemes to promote
2	Promotion of car clubs / encouraging car clubs to operated in Rossendale	Alternatives to private vehicle use	Car and lift sharing schemes	2024	ongoing	Local Authority Lancashire County Council	N/A	No	Not funded	<£10k / £10k	Planning phase	Likely only a small reduction in emissions, emissions eg 1-2% reduction in NOx emissions.	numbers of members of car clubs	Planning phase	There may be no car clubs to promote or operators willing to start schemes in Rossendale
3	Prioritising low emission transport	Promoting low emission transport	Company vehicle procurement	2024	ongoing	Local Authority Lancashire County Council	N/A	No	Not funded	unknown	Planning phase	Council fleet represents a small proportion of vehicles on the network – likely very small reduction in total emissions.	Reduction in business mileage travelled by staff in diesel or petrol vehicles – shown as a percentage	Planning phase	Resources
4	Encourage/fa cilitate home working	Promoting Travel Alternatives	Encourage/facil itate home working	2021	ongoing	All organisations	N/A	No	Not funded	Nil	Ongoing implementaio	Potential reduction in emissions due	Increase in days of home-working	Ongoing	N/A

Measure No.	Measure	Category	Classification	Estimated Year Measure to be Introduced	Estimated / Actual Completio n Year	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Target Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Potential Barriers to Implementation
												to reduction in car trips. Likely to be small.			
5	Active travel campaign and infrastructure	Promoting Travel Alternatives	Active travel campaign and infrastructure	Already in place	ongoing	Lancashire County Council	N/A	No	Not funded	N/A	Ongoing implementati on	Potential reduction in emissions from moving trips from cars to active modes. Difficult to quantify.	Number of public campaigns run.	Ongoing	None
6	Increase Public Awareness of air quality issues, including reducing exposure, focus on active travel and domestic solid fuel burning.	Public Information		2024	Ongoing	Local Authority	N/A	No	Not funded	Nil	Planning phase	Difficult to quantify as over long time period and will work in collaboration with other actions	Number of campaigns launched	Occurring	None

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response			
Forward Planning	Local Authority	Suggested some action plan measures			
Principal Planner	Local Authority	Suggested some action plan measures			
Local Councillors	Residents Living in the AQMA	Suggested some action plan measures			
Residents	Residents living in the AQMA	Suggested some action plan measures			

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)		
Traffic Management	Turn the whole length of Grane Road to 30mph	Financially unviable		
Traffic Management	Make a small section of Grane Road outside the properties one way	Financially unviable		
Traffic Management	Make parking available outside the properties to widen the distance to the traffic	Not feasible		
Traffic Management	Add sleeping policemen speed humps on Grane Road	Not feasible		
Traffic Management	Close the access from the A56 onto Grane Road	Not feasible		
Traffic Management	Add a roundabout at the Holcombe Road and the Grane Road junction	Not feasible		

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Traffic Management	Introduce an additional average speed camera before the exit to Holcombe Road, as drivers exiting there from the Haslingden direction are able to speed without hitting the second camera which is much further up beyond the junction	Not feasible
Traffic Management	Install a zebra crossing near the bus stops near Gas Street/Greaves Street	Not feasible
Traffic Management	Plant pollution absorbing trees on council land in the vicinity	No suitable land in the vicinity of the AQMA

6 Glossary of Terms

Abbreviation	Description					
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'					
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives					
AQS	Air Quality Strategy					
ASR	Air quality Annual Status Report					
Defra	Department for Environment, Food and Rural Affairs					
EU	European Union					
LAQM	Local Air Quality Management					
NO ₂	Nitrogen Dioxide					
NOx	Nitrogen Oxides					
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less					
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or les					