



Horsham
District
Council



Horsham District Council
Cowfold Air Quality Action Plan
(Cowfold Air Quality Management Area)

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

December (2020)

Local Authority Officer	Anna Czerska
Department	Environmental Health Department
Address	Parkside, Chart Way, Horsham, West Sussex RH12 1RL
Telephone	01403 215292
E-mail	anna.czerska@horsham.gov.uk
Report Reference number	Cowfold AQAP
Date	31/12/2020

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 will take to improve air quality in Horsham District Council.

This action plan replaces the previous action plan which ran from 2012. Projects delivered through the past action plan include:

- Introduction and implementation of Air Quality And Emissions Mitigation Guidance;
- Participation in the AirAlert service to residents;
- Co-operation with schools to enhance school travel plans;
- Procurement of three ultra-low emission vehicles for the HDC fleet with the ULEV Readiness Grant.

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. Horsham District Council is committed to reducing the exposure of people in the Horsham district to poor air quality in order to improve health.

We have developed actions that can be considered under the following broad topics:

- Alternatives to private vehicle use
- Environmental permits
- Freight and delivery management
- Policy guidance and development control
- Promoting low emission transport
- Promoting travel alternatives
- Public information
- Transport planning and infrastructure

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

- Traffic management
- Vehicle fleet efficiency

Our priorities are working with planning policy and development control to secure air quality mitigation from new development and progressing delivery of traffic management / congestion improvement schemes as identified in Section 5.

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 Horsham District Council's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Environmental Health Department of Horsham District Council with the support and agreement of the following officers and departments: planning, Public Health England, West Sussex County Council (WSCC) highways, neighbouring districts, Sussex-Air Partnership and the Environment Agency.

This AQAP has been approved by: the Head of Planning at Horsham District Council.

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

If you have any comments on this AQAP please send them to Environmental Health at:

Email: publichealth.licensing@horsham.gov.uk

Telephone: 01403 215609

Table of Contents

Executive Summary	i
Responsibilities and Commitment	ii
1 Introduction	1
2 Summary of Current Air Quality in Horsham District Council.	2
3 Horsham District Council’s Air Quality Priorities.....	3
3.1 Public Health Context.....	3
3.2 Planning and Policy Context.....	3
3.3 Source Apportionment.....	3
3.4 Required Reduction in Emissions.....	4
3.5 Key Priorities	4
4 Development and Implementation of Horsham District Council’s	
AQAP.....	5
4.1 Consultation and Stakeholder Engagement.....	5
4.2 Steering Group.....	6
5 AQAP Measures	7
Appendix A: Cowfold Air Quality Management Area scheme proposals	
review, June 2017	24
Glossary of Terms	38
References	39
List of Tables	
Table 5.1 – Air Quality Action Plan Measures	12

1 Introduction

This report outlines the actions that Horsham District Council will deliver in order to reduce concentrations of air pollutants and exposure to air pollution in the Cowfold Air Quality Management Area (AQMA); thereby positively impacting on the health and quality of life of residents and visitors to the area.

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 Horsham District Council's air quality ASR.

2 Summary of Current Air Quality in Horsham District Council.

Horsham district is primarily agricultural in character and does not incorporate a significant heavy industrial base or major transport hubs. The main source of air pollution locally are road traffic emissions from major roads, notably the A24, which intersects the district north – south; A264 to the north of Horsham; A272 and A281 at Cowfold; and A283 at Storrington. Two Air Quality Management Areas (AQMAs) have been declared in the district in the village of Cowfold and town centre of Storrington, both for the exceedances of the annual mean objective for nitrogen dioxide (NO₂). Air Quality Action Plans (AQAP) were prepared for both AQMAs; the Storrington AQAP was submitted to Defra in 2012 and the Cowfold AQAP in 2013.

3 Horsham District Council's Air Quality Priorities

3.1 Public Health Context

To ensure that Directors of Public Health are briefed on the status of air quality in the Horsham district, the ASRs produced are sent each year to Public Health at West Sussex County Council.

Public Health West Sussex have contributed to the delivery of behavioural campaigns in the region, such as the Clean Air Day.

3.2 Planning and Policy Context

The Environmental Protection and Air Quality policies have recently been amended in the process of finalising the next draft of HDC's Local Plan review. The wording of the policies has been strengthened requiring developers to adhere to the *Air Quality and Emissions Mitigation Guidance for Sussex (2020)*, which outlines the steps required to assess and mitigate the impact that new developments may have on local air quality for a number of air pollutants.

The policies strongly endorse affirmative action towards air quality improvement, which includes:

- sustainable design and construction;
- reducing traffic and congestion through access to sustainable transport modes, maximising the provision for cycling and pedestrian facilities;
- encouraging the use of cleaner transport fuels, including through the provision of electric car charging points in accordance with both the District and County Electric Vehicle Strategies;
- mitigating the impact on the amenities of users of the site and surrounding land to an appropriate level, where development creates or results in pollution including particulates, dust, smoke, pollutant gases or odour;
- ensuring that the cumulative impact of all relevant committed developments and / or its associated traffic is appropriately assessed.

3.3 Source Apportionment

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

The last source apportionment exercise was carried out by Horsham District Council in 2019. This identified that within the AQMA (worst-case location at the diffusion monitoring site 7n), the percentage source contributions were as follows:

- Emissions from HGVs accounted for approximately 24% of vehicle NO_x concentrations; and
- Emissions from cars and LGVs accounted for approximately 74% of vehicle NO_x concentrations.

3.4 Required Reduction in Emissions

The worst-case location at the monitoring site 7n has been below 40µg/m³ since 2019. However, if the required road NO_x reduction is taken as one corresponding to 36µg/m³ that would be require the current road NO_x to reduce by 9µg/m³ (17%).

3.5 Key Priorities

- Working with planning policy and development control to secure air quality mitigation from new development;
- Completion of the Defra-funded Clean Burn Sussex project;
- Progression of a Freight Delivery Partnership / Fleet Operator Recognition Scheme Standard;
- Progressing delivery of traffic management / congestion improvement schemes for Cowfold as identified in sections below.

4 Development and Implementation of Horsham District Council's AQAP

4.1 Consultation and Stakeholder Engagement

In developing/updating this AQAP, we have worked with other local authorities, agencies, businesses and the local community to improve local air quality.

4.2 Steering Group

A Steering Group, made up of Environmental Health Officers, Parish Council's Members and WSCC Transport Planners, was set up early in the action planning process.

The Group have contributed to the development of the Action Plan and is the decision making body for the action plan measures to be taken forward.

5 AQAP Measures

Table 5.1 shows the Horsham District Council's 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 (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 ASRs for regular annual updates on implementation of these measures

The original Action Plan for Cowfold was submitted to DEFRA and published in September 2013. The draft was accepted by DEFRA in December 2013. Similar to the Storrington Plan, most of the actions set out in the Cowfold Action Plan have either been completed or retracted due to low effectiveness or low feasibility. The most recent review of the identified measures has taken place in September 2017. The review note, produced by the officers of HDC and the County Council can be found in Appendix A.

The review highlighted a number of measures for further consideration. Following further evaluation, the Cowfold Air Quality Steering Group supported progression of two main schemes that have been considered further and which are described in further detail below:

- Improved signage on strategic routes to discourage longer distance lorry traffic from using the A272 through Cowfold;
- Realignment of A272 Bolney Road adjacent to Huntscroft Cottages.

The Cowfold Action Plan also includes a Smarter Choices scheme, which involves work with WSCC to enhance school travel plans, identify safety improvements to encourage walking, cycling, walking buses, and contribute to air quality awareness education programmes.

Improved signage on strategic routes to discourage longer distance lorry traffic using the A272 through Cowfold

The following data is based on the maximum possible theoretical impact of installation of advisory signs for lorries on 4 route options on the A24, A272 and A23 deterring HGV traffic from taking the route through the Cowfold AQMA. An assessment of the movement of vehicles (particularly HGVs) through Cowfold was carried out in Spring 2019, based on 12-hour 0700-1900 traffic flows. Within the 12 hour flow on the A281 Cowfold High Street there was 6% HGVs of which 23% could be considered transferable movements to other routes. The conclusions were that only a small number of HGVs could potentially be re-routed away from Cowfold village centre. The survey data did not include details of the specific origins or destinations of these flows beyond the survey cordons located at the junctions of the A23 and A24, so not all of these candidate flows would be suitable for transfer. Further consideration of whether this level of candidate transferrable movement is significant in air quality terms is needed before a decision is taken to explore this measure further. It should also be noted there may not be sufficient controls available to agencies to enforce removal of this traffic.

Realignment of A272 Bolney Road adjacent to Huntscroft Cottages

The Council has been liaising with WSCC to consider a proposed A272 road realignment project in the centre of Cowfold village. The proposed scheme, whilst initiated originally on highway safety grounds, would have the effect of moving the road further from the worst affected receptors within the AQMA. Dispersion modelling showed a significant reduction in NO₂ concentrations at receptors currently exceeding the annual mean objective. The cost of the scheme is like to be significant due to underground utilities present under the road, which adds to the traffic management costs. Due to the expected high costs, the only route to progress the scheme is through the WSCC Strategic Transport Investment Programme (STIP). The Council applied for Defra's air quality grant to provide partial funding for the scheme but was unsuccessful as, should it be implemented, while the scheme will have a positive impact on NO₂ concentrations at relevant receptors, overall emissions will remain unchanged. Regarding the review of the STIP programme, there is a lot of pressure on this programme, and this scheme was not prioritised in

the most recent April 2019 review decision. This scheme is therefore not being considered for further progression at this time but could still be considered in the future.

Smarter Choices – encourage walking and cycling; work with schools

This scheme involves work with WSCC to enhance school travel plans, identify safety improvements to encourage walking, cycling, walking buses, and contribute to air quality awareness education programmes.

Sussex-air have been successful in the 2020/21 bid to Defra for funding to work with primary and secondary schools to tackle school travel emissions. The project will involve air quality monitoring and may include school street closures. This a continuation of the programme that was delivered in 2018-19 to work with primary schools in or near Sussex AQMAs.

Other Measures

There are a number of other schemes which could be considered, which may be progressed at a later date, depending on funding and scheme feasibility; those include:

- Review on-street car parking and loading bay provision;
- Promotion of alternative travel options; and
- Low Emission Zone / CAZ.

Review on-street car parking and loading bay provision

This would entail potential changes to onstreet parking and to delivery arrangements for businesses in the centre of Cowfold. This measure was originally identified in the Action Plan in relation to delivery arrangements to the Coop before it moved to the former Old Coach House pub site. At present, there are not known to be significant on-street car parking or loading issues within Cowfold affecting air quality receptor hotspot locations through the village. Therefore no specific action is proposed at this point in time. However, any planning applications coming forward for use of the former Coop building, as well as any continuing or emerging community concerns

about onstreet parking or loading issues should be monitored in relation to air quality impacts.

Promotion of alternative travel options

This includes a number of measures focusing on working with local businesses, promoting electric vehicles, improving public transport, promoting travel plans, encouraging walking and cycling, and working with schools. These schemes are being investigated through various delivery avenues, and are subject to different feasibility and value for money considerations.

Low Emission Zone / CAZ

Given the experience from the Storrington LEZ trial, and the questions of practical enforceability of any LEZ restrictions it can be expected that there would be reservations about the feasibility and effectiveness of progressing a separate LEZ in Cowfold. However, a grant bid was submitted to Defra in 2019 for a feasibility study into the setting up a voluntary Clean Air Zone (CAZ), which would entail implementing a number of actions aimed at promoting and improving air quality, such as a car club and a rapid ev charging point. Regrettably, the bid was unsuccessful so alternative source of funding needs to be found were the scheme to be progressed.

A27 Improvements (Arundel bypass)

In addition to the schemes detailed above, for which progression lies within the remit of HDC/WSCC, consultation took place in late summer 2017 in respect of the A27 Improvements (Arundel bypass) scheme. Following the consultation, a decision was announced to progress a modified version of Option 5a of the scheme. The details of the scheme are set up in the paragraphs above (under the heading Storrington Air Quality Action Plan). Following further development of the scheme and the discovery of new information about the decision, a further options consultation took place in 2019 as well as a further review period in early 2020. A new Preferred Route Announcement is expected later in 2020.. This scheme is expected to reduce traffic flows through Cowfold where longer distance traffic is avoiding the A27 due to congestion (for example longer distance journeys between Haywards Heath and Chichester).

Horsham District Council

Horsham District Council anticipates that the measures stated above and in Table 2.3 will achieve compliance in the Cowfold AQMA within the next few years.

Table 5.1 – Air Quality Action Plan Measures

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
1	Planning Advice Document: Air Quality & Emissions Reduction Guidance	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	HDC	2013-14	May-14 – to date	Reduction in emissions from transport associated with new development through mitigation and compensation. Assessment of emissions from development required with application. Scheme of mitigation required.	1%	The updated guidance, Air Quality And Emissions Mitigation Guidance for Sussex (2019) has been published on HDC website and its application is tested in HDC and neighbouring districts within Sussex.	Ongoing	As the Local Plan is currently under review, this presents an opportunity to strengthen the wording of HDC’s air quality policy. The Council is also looking to adopt the Air Quality and Emission Mitigation Guidance as a Supplementary Planning Document (SPD).
2	District Emission Reduction Strategy District Emission Reduction Strategy	Promoting Travel Alternatives	Development of alternative fuel strategy	HDC	2013	2013 – to date	At least one alternative refuelling option in all new/refurbished filling stations. One public EV charging point in each village in Horsham district. EV rapid charge points for Energise network. Work with local businesses to develop CNG refuelling infrastructure for local commercial fleet operators	1%	Final version of the Electric Vehicle Strategy for West Sussex 2019-2030 got published in December 2019.	Ongoing	Small initial impact on emissions but aim to facilitate the uptake of more LE vehicles. Planning guidance requires EV charging points for all developments as mitigation measure. Review of potential LE fuel assets within district e.g. biomethane from existing landfill/anaerobic digestion plant ongoing as part of strategic planning.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
3	Incentivising Low Emission Transport	Promoting Low Emission Transport	Public Vehicle Procurement – Prioritising uptake of low emission vehicles	HDC Funding for ULEV vehicle leases: HDC & OLEV	2013/14	2013 - ongoing	Introduction & increase % of ULEV's into Council's vehicle fleet. -Condition requiring latest Euro standard for all new taxis through licensing condition. -buses entering AQMAs to be best available Euro standard vehicle within the company fleet. Achieved via negotiation/LEZ	1%	ULEV Readiness Grant was secured in 2015. Three ultra-low emission vehicle have been delivered to the HDC fleet. Most of the cost of vehicle leases is to be reimbursed by OLEV for 24 months. Taxi/private hire vehicle licence conditions under review. Current vehicles comply with latest Euro standard. Ongoing liaison with bus companies serving routes through AQMAs to reduce engine idling at bus stops. Brighton Bus LEZ introduced in	2013 - ongoing	Small initial impact on emissions but aim to facilitate the uptake of more LE vehicles. Benefits of Brighton LEZ vehicle emission improvements will extend to areas outside Brighton

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
									Jan 2015.		
4	AirAlert	Public Information	Via other mechanisms	Sussex-Air/HDC	Service operational	Ongoing service	Increase in subscriptions to pollution alert service within Horsham district.	No reduction in emissions.	Health study continuing. Increase in subscriptions. Cold and heat alerts added to service over the recent years.	Ongoing service	No direct impact on emission reductions but optimising use of monitoring network data for health associated benefits.
5	Clean Burn Sussex	Public Information	Via other mechanisms	Sussex-Air/HDC	2018-20	2018-20	Number of survey forms returned; Number of visitors to the website; Number of suppliers participating in the project.	<1%	Data collected in survey has been analysed. Participants in survey were sent information on how to reduce emissions from burning through using cleaner stoves and fuels. A dedicated website has been added to the Sussex Air domain and running from November 2019	Sep-20	Community participation is crucial to the project's success.
6	Improved signage on strategic routes or restrictions on	Traffic Management	Strategic highway improvements	HDC / WSCC	2013-17	2020	Reduction in NO2 concentrations in Cowfold.	1%	Scheme has been endorsed by Cowfold	2020/21	Changes to road signs might encourage longer distance lorry traffic to use other

Horsham District Council

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	longer distance lorry traffic						Improved traffic flow / reduction in traffic congestion.		Parish Council. An assessment of the movement of vehicles (particularly HGVs) through Cowfold was carried out in Spring 2019, based on a 12-hour traffic survey. Further consideration of whether this level of candidate transferrable movement is significant in air quality terms is needed.		strategic routes such as the A23/A264/A24 to the north or the A23/A27/A24 to the south to avoid the Cowfold AQMA. Variable Message Signs (VMS) might also be considered to encourage drivers to use alternative routes at peak times when air quality problems are worse. The conclusions of the feasibility study are that only a small number of HGVs could potentially be re-routed away from Cowfold village centre in peak hours. There are also concerns that there are insufficient controls available to the highway authorities (WSCC and Highways England) to encourage this traffic to use suitable alternative routes.
7	Review on-street car parking provision and possible re-designation of spaces as dedicated loading bays, to reduce number	Traffic Management	UTC, Congestion management, traffic reduction	HDC / WSCC	2015-20	2020	Reduce emissions from traffic in Cowfold	1%	It is believed that this measure was originally identified in the Action Plan in relation to delivery	Ongoing	Any planning applications coming forward for use of the former coop building, as well as any continuing or emerging community concerns about on-street parking or loading issues should be

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	of vehicles stopping on the carriageway								<p>arrangements to the Coop before it moved to the former Old Coach House pub site.</p> <p>There are not known to be significant on-street car parking or loading issues within Cowfold affecting air quality receptor hotspot locations through the village.</p> <p>Close monitoring of any proposals for new uses of the former Coop building will need to be made to ensure any potential impacts on air quality will be appropriately mitigated.</p>		monitored in relation to air quality impacts.
8	Promotion of Alternative	Promoting Low Emission	Public Vehicle Procurement -	HDC / WSCC	2013	2013 – ongoing	Reduce emissions from	1%	Cowfold village	2013 – ongoing	These schemes are being investigated

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	Transport / Fuelling options	Transport Alternatives to private vehicle use Promoting Low Emission Transport	Prioritising uptake of low emission vehicles Car Clubs Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging				traffic in Cowfold		<p>serves a local population of approximately 1800 residents. Public transport options are limited and private car use is the primary mode of transport.</p> <p>Although expected to be a low proportion of the overall volume of vehicle trips, engagement with Cowfold Primary School should continue in order to ensure as many local trips are made by other means to single child occupancy car use as possible.</p>		<p>through various delivery routes. Their direct impact on Cowfold air quality issues in the short to medium are not likely to be significant, however they form part of a wider approach of promoting a culture of using alternative travel options to single occupancy car use.</p>
9	Public/commercial vehicle fleet improvement	Promoting Low Emission Transport	Public Vehicle Procurement – Prioritising uptake of low	HDC / WSCC	2013	2013 – ongoing	Encourage use of LE home delivery vehicles Incentivise use	1%	Review of Council Depot vehicles	2013 – ongoing	Emission reductions sought through partnership working with local businesses

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
			emission vehicles				of LE vehicles by Community minibus service. Work with local bus service to utilise best available Euro standard vehicles for AQMA routes. Promote use of transport /travel plans to increase use of sustainable transport.		underway by EST to establish Euro standard, replacement schedule and opportunities for upgrading to low emission fuels.		to minimise impact of deliveries etc. on the village.
10	Smart Choices – encourage walking and cycling; work with schools	Transport Planning and Infrastructure Alternatives to private vehicle use	Other Car Clubs	HDC / WSCC	2013	2013 – ongoing	Promote bike rental scheme with local supplier. Investigate funding streams for improvements to local walking & riding paths. – Improve signage -Investigate funding for secure bike storage at local car parks. Undertake feasibility study for introduction of car club in Cowfold following success of initiative in Horsham town.	1%	Preliminary review of current facilities. Further meeting with Parish Council to be arranged. Feasibility study to be considered to assess suitability of car club in Cowfold by looking at demographics etc A bid led by East Sussex County Council has secured funding through the air quality	2013 – ongoing	Emission reductions sought through encouraging the use of sustainable transport options within the towns and villages.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
									grant scheme 2020/21 towards developing an action plan for schools and businesses in AQMAs, this includes Cowfold and Storrington Primary schools..		
11	School Travel Plans	Promoting Travel Alternatives	School Travel Plans	WSCC/HDC	2013	Ongoing	Work with WSCC to enhance school travel plans. Identify safety improvements to encourage walking/cycling. Contribute to air quality awareness education programmes.	1%	School travel improvements considered as part of planning applications for new residential developments in Cowfold. Work continues on school travel plans. Cowfold Primary School and WSCC have been working to investigate options for pedestrian crossing and cycling improvements in and around the school (see	Ongoing	Emission reductions sought through working with schools, parents and pupils to encourage the use of safe and sustainable transport to and from schools, and reduce the number of local car trips.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
									main text)		
12	A272 Road Realignment (Realignment of A272 Bolney Road adjacent to Huntscroft Cottages)	Traffic Management	Strategic highway improvements	HDC / WSCC	2014-15	2019-20	Reduction in nitrogen dioxide concentrations in Cowfold. Improved traffic flow / reduction in traffic congestion.	10%	Road realignment scheme – proposed primarily on pedestrian safety grounds because of the narrow footpath adjacent to Huntscroft cottages. Dispersion modelling showed a significant reduction in NO2 concentrations at receptors currently exceeding the annual mean objective. Due to existing pressures no new schemes have been incorporated into the Strategic Transport Investment Programme in 2019.		Road realignment will move A272 further from Huntscroft Cottages which experience the highest NO2 concentrations within the Cowfold AQMA. NO2 concentrations will be significantly reduced at receptor locations. Feasibility of the scheme is unclear due to potential impacts on character of village and business case. The cost of the scheme is significant due to underground utilities present under the road and with the traffic management costs required. An estimate of the scheme cost is £600,000.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
									This scheme is therefore not being considered for further progression at this time but could still be considered in the future.		
13	Clean Air Zone / LEZ	Promoting Low Emission Transport	Low Emission Zone	HDC / WSCC	2019/18	2-25	Reduction in nitrogen dioxide concentrations in Cowfold. Improved traffic flow / reduction in traffic congestion.	10%	Given the experience from the Storrington LEZ trial, and the questions of practical enforceability of any LEZ restrictions it can be expected that there would be significant reservations about the feasibility and effectiveness of progressing a separate LEZ in Cowfold. A grant bid was submitted to Defra in 2019 for a feasibility	2025	The zone would limit access to the village for specific vehicle types not meeting specified emission standards (e.g. Euro V or above). The set up cost and operational costs of the scheme are significant. Additional considerations are needed to be given to the practical enforceability of any restrictions, whether exemptions are needed for local access, and the impacts of the zone on local businesses and the local community.

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
									study into the setting up a voluntary Clean Air Zone (CAZ), which would entail implementing a number of actions aimed at promoting and improving air quality, such as a car club and a rapid ev charging point. Regrettably, the bid was unsuccessful so alternative source of funding needs to be found were the scheme to be progressed.		
14	A27 Improvements (Arundel Bypass)	Traffic Management	Strategic highway improvements	Highways England/ WSCC	2013	2013 – ongoing	Improvements to A27 now programmed by Highways England. Key indicator of AP measure will be for HE to agree scheme and implement.	2.5%	WSCC A27 Action campaign launched to seek improvement to A27.	Construction start estimated at 2022.	Improvements to the A27 are one of the key priorities of the current West Sussex Transport Plan (LTP3).
15	A27 Improve-	Traffic	Strategic	Highways	2015	2015 – ongoing	Key indicator of	2.5%	WSCC A27	Unknown	Improvements to the

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	ments (Worthing & Lancing)	Management	highway improvements	England/WSCC			AP measure will be for HE to agree scheme and implement.		Action campaign launched to seek improvement to A27.		A27 are one of the key priorities of the current West Sussex Transport Plan (LTP3).

Appendix A: Cowfold Air Quality Management Area scheme proposals review, June 2017

This review note has been prepared by officers from Horsham District Council and West Sussex County Council for the Cowfold Air Quality Steering Group. It reviews the previous measures and assessments undertaken for all of the identified measures proposed to address air quality issues in Cowfold. This includes traffic management related measures, and other measures as listed below which are drawn from the Cowfold Air Quality Action Plan (September 2013), as well as other proposals highlighted by the Steering Group.

Summary

There are no clear cut highway infrastructure measure solutions to the problem because of concerns about either the deliverability of the schemes proposed, a lack of evidence that there would be any material improvement to air quality, or because of concerns about the likelihood of schemes generating a business case.

Main review

The following list of measures has been reviewed in this document:

General traffic management measures identified in 2013 Action Plan

- (1) Impact on air quality of imposing a 20mph speed restriction
- (2) Impact of Low Emission Zone for Cowfold
- (3) Impact of a 'gating' option for Cowfold
- (4) Impact of improved signage on strategic routes or restrictions on longer distance lorry traffic

Specific congestion improvement measures identified in 2013 Action Plan

- (5) Review options for redesign of two roundabouts
- (6) Review pedestrian crossing on 'The Street' to establish the benefit in upgrading this crossing
- (7) Review on-street car parking provision and possible re-designation of spaces as dedicated loading bays, to reduce number of vehicles stopping on the carriageway
- (8) Promotion of alternative travel options

Other highway infrastructure measures

- (9) Realignment of A272 Bolney Road adjacent to Huntscroft Cottages.

District-wide measures identified in 2013 Action Plan

- (10) Air Quality Planning Guidance
- (11) District emission reduction strategy
- (12) A27 improvements
- (13) Air Alert


National vehicle fleet improvements


- (14) Improvements in the national vehicle fleet.

Measures have been assessed based on their anticipated air quality benefit for the Cowfold Air Quality Management Area (AQMA) on a low/medium/high (L/M/H) basis. Next step recommendations are provided in relation to each measure for the Steering Group, based on the red-amber-green scoring definitions below. Please note that few of the schemes are marked ‘green’ as they do not combine being a scheme that has a clear air quality benefit, and a scheme which is also deliverable.

Next steps conclusions scoring definitions

 Scheme has a clear air quality benefit and appears to be deliverable. Scheme should be investigated further.

 Scheme appears that it may have an air quality benefit, however the scale of this benefit is unknown, and/or the deliverability of the scheme is unclear. The scheme could potentially be investigated further

 Scheme is expected to have little or no expected air quality benefit and/or is not viable

 Scheme is being developed through other delivery mechanisms

Table A.1 – Assessed Traffic Management Measures

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
1	Impact on air quality of imposing a 20mph speed	Investigation of whether imposition of a 20mph speed restriction through the AQMA would improve	- Ricardo-AEA have previously concluded in an assessment of the Storrington AQMA that if traffic in the village centre could flow freely at an	- It is known that the most severe air pollution problems are experienced at peak times when traffic flows are highest and average vehicle speeds are below	Very low	Given that the main pollution problems are known to exist at peak traffic flow	Cowfold Air Quality Action Plan (September 2013) – Traffic

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	restriction	air quality by smoothing flow and reducing congestion.	<p>average speed of 25 to 30 mph this would give rise to lower vehicle emissions of nitrogen oxides than at 20mph. This is based on the emissions rates included in the Emissions Factors Toolkit. In contrast research by Imperial College found emissions of NOX and CO2 to be higher at 20mph compared to 30mph for Euro VI petrol vehicles (1.4 – 2.0 litre) but found the opposite was true for diesel vehicles of the same engine size range.</p> <p>- The average speed of the current traffic through the Cowfold AQMA is considered to be around 20-30 mph during free flowing periods and less than 20 mph during busy periods; this is mainly due to congestion caused by vehicles reducing speed or stopping to negotiate the junctions in the middle of the village.</p>	<p>20mph.</p> <p>- Clearer evidence is needed to understand the impact of traffic speeds on emissions from different size petrol and diesel vehicles.</p>		<p>times when average vehicle speeds are below 20mph, it is not recommended that this is a focus of Steering Group investigation.</p>	<p>Management Study Scenarios</p> <p>Traffic Management Feasibility Study: Ricardo-AEA Storrington Traffic Management Options Appraisal. Air Quality Assessment (January 2013)</p> <p>An evaluation of the estimated impacts on vehicle emissions of a 20mph speed restriction in central London, Centre for Transport Studies, Imperial College London (April 2013)</p>
2	Impact of Low Emission Zone for Cowfold	The LEZ would limit access to the village for specific vehicle types not meeting specified emission standards (e.g. Euro V or above).	<p>- Any LEZ might restrict all HGV's of pre Euro V classification from entering the village.</p> <p>- A LEZ trial was undertaken in Storrington AQMA in partnership with Siemens. The scheme could not go ahead due to the Greenzone system not functioning affectively. Signal reception problems affecting the system resulted in significant loss of data, whilst there were also problems with the categorisation of vehicles into Euro standard categories.</p>	- Additional considerations are needed to be given to the practical enforceability of any LEZ restrictions, whether exemptions are needed for local access, and the impacts of the LEZ on local businesses and the local community.	Expected Medium-High	Given the experience from the Storrington LEZ trial, and the questions of practical enforceability of any LEZ restrictions it can be expected that there would be significant reservations about the feasibility and effectiveness of progressing a separate LEZ in Cowfold.	<p>Cowfold Air Quality Action Plan (September 2013) – Traffic Management Study Scenarios</p> <p>Traffic Management Feasibility Study: Ricardo-AEA Storrington Traffic Management Options Appraisal. Air Quality Assessment (January 2013)</p>
3	Impact of a gating	Traffic gating would	- This scheme was discussed for	- Driver compliance and enforceability of	Expected Medium	Given the	Cowfold Air

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	option for Cowfold	involve using traffic signals at suitable points on the entry to the village to control the inflow of traffic during busy periods, and hence reduce congestion and emissions from stationary or very slow moving vehicles.	<p>Storrington however was not progressed due to concerns about potential impacts on 'rat running' on other traffic routes around the village.</p> <ul style="list-style-type: none"> - There does not appear to have been a clear proposal explained behind how gating in Cowfold would work to date. - A focused scheme which attempts to reduce the amount of peak time stationary or slow moving westbound traffic outside Huntscroft Cottages (the air quality receptor exposure hot spot within the village) is a possible option. - This scheme could involve the use of a traffic signal at the eastern entry point to the village, linked to sensors which record when traffic queues back up to Huntscroft Cottages. - This proposal would not be intended as a measure that attempts to reduce the amount of westbound traffic travelling through the village, and would only be intended to re-distribute westbound queuing traffic to outside of the village. The scheme should not increase the overall time it takes eastern approach vehicles to pass through Cowfold. - There are none known UK examples to date where traffic signals have been used to gate traffic on the grounds solely on the purposes of air quality, rather than junction or pedestrian safety. 	<p>the traffic signal is a key concern with the proposal and it is believed that Sussex Police would hold reservations in relation to the scheme due to concerns about potential crime and disorder problems resulting from a lack of driver compliance and potential public order offences.</p> <ul style="list-style-type: none"> - It is unlikely there will be any additional resources in place to provide dedicated officer enforcement and the scheme would need to be self-enforcing. Enforcement cameras are only installed to reduce casualties and siting of such equipment is based upon a casualty and speed based criteria. Use of cameras for enforcement of an air quality scheme would be outside both national and local guidelines. - There are issues with regard to the extent of any queuing introduced on the eastern entry to the village which will be a safety consideration given the national speed limit and bends in road approaching the eastern end of Cowfold. - Detailed testing and modelling would be required to understand whether the scheme would work in practice and improve air quality outside of Huntscroft Cottages. - Although the intention would need to be that the scheme would operate without increasing the overall time taken to pass through Cowfold from the eastern approach, imposition of a traffic signal could still generate re-routing issues for other rural lanes in the area which would need to be considered. - The costs of testing and implementing 	at Huntscroft Cottages	compliance and enforcement issues associated with this scheme, and the likely difficulties in generating a business case, it is not recommended that this scheme is a further focus of investigation for the Steering Group.	Quality Action Plan (September 2013) – Traffic Management Study Scenarios

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
				the scheme will not be insignificant. Even if the legal and enforcement issues could be overcome, and a benefit proven, it is anticipated that the likely costs of developing this scheme will make proving a business case difficult in the context of the apparent trend of improving air quality (see measure 14).			
4	Impact of improved signage on strategic routes or restrictions on longer distance lorry traffic	Changes to road signs might encourage longer distance lorry traffic to use other strategic routes such as the A23/A264/A24 to the north or the A23/A27/A24 to the south to avoid the Cowfold AQMA. Variable Message Signs (VMS) might also be considered to encourage drivers to use alternative routes at peak times when air quality problems are worse.	<ul style="list-style-type: none"> - The A272 is identified as a 'Local Lorry Route' within the West Sussex Advisory Lorry Route Network. This means that it is advised that the route should only be 'used for the starting or final leg of longer distance lorry trips or for travelling between built-up areas in West Sussex'. This is opposed to the 'Strategic Lorry Routes' where by it is advised that 'all movements crossing the County should use these routes with those starting or ending within the County using them in preference to local lorry routes wherever possible.' - Practical options for making improvements to advisory sign posting for long distance strategic traffic appear limited. 	<ul style="list-style-type: none"> - The A272 is part of the West Sussex 'Local Lorry Route' Network. Whilst it is intended that longer distance 'strategic' journeys do not use the A272, the A272 is an important route connecting towns along this east-west route through the middle of the county. - A feasibility study is needed to investigate the background of the problem, refer to available data and possibly new data on traffic flows and look into scheme design including details such as what the sign would look like, where it might be located and an estimated cost. As the A23 is not a WSCC maintained road the study would also need to cover off any additional permission required by Highways England. 	Low/Medium	As the A272 is part of the West Sussex 'Local Lorry Route' Network, and it is not practical to enforce any restriction for longer distance lorry traffic through Cowfold, it is not recommended that this is a focus of further investigation for the Cowfold Air Quality Steering Group.	Cowfold Air Quality Action Plan (September 2013) – Traffic Management Study Scenarios
5	Review options for redesign of two roundabouts	This scheme involves reviewing options for the operation of the roundabouts in the centre of the village.	<ul style="list-style-type: none"> - Space constraints within the centre of the village mean that there are limited options for redesigning junctions to provide additional capacity. - Opportunities to add additional approach lanes to roundabouts are limited due to space constraints, and likely impacts on pedestrian facilities and the character of the centre of the village. - In terms of traffic signal options, whilst this may be potential to reduce the degree of queuing outside key receptor hot spots i.e. Huntscroft Cottages, by 	<ul style="list-style-type: none"> - There is expected to be significant cost to signalising the junctions at the centre of the village, which although having the potential to reduce air quality problems at Huntscroft Cottages is likely to create worse congestion and queuing problems on other approaches to the village. 	Expected medium	Due to the likely cost of signalisation problems and the extra queuing/congestion problems this is expected to create on some of the approaches to the village, it is not recommended that this is a focus for future investigation for the Steering Group.	Cowfold Air Quality Action Plan (September 2013) – Congestion Improvement Measures

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
			prioritising 'green time' to flows from the westbound eastern approach to the village, this is likely to create imbalanced queues and congestion on other approaches to the village.				
6	Review pedestrian crossing on 'The Street' to establish the benefit in upgrading this crossing	Upgrading the crossing to the latest signal crossing technology.	<p>- Since the Air Quality Action Plan was established this crossing has been upgraded to a Puffin crossing. This uses kerbside detectors to cancel demands on the crossing no longer required (if a person crosses before the green man lights).</p> <p>- The crossing uses 'vehicle actuation' technology. The crossing does not use microprocessor technology (Microprocessor Optimised Vehicle Actuation - MOVA) as this is not appropriate to apply in this location due to the nature of the traffic speeds.</p> <p>- Theoretically changes to pedestrian crossing operation in air quality management areas could paradoxically be approached in 2-ways during peak periods. Signals could be controlled to prioritise traffic green time to attempt to smooth flows to reduce very slow moving traffic and improve air quality at peak times, or to prioritise pedestrian green time to ensure people are not exposed to vehicle pollution for longer than necessary.</p> <p>- It is not believed that the current operation of the crossing is a main cause of traffic congestion in the centre of the Cowfold due to the nature of the mini-roundabouts.</p>	- it is not believed that any further benefit can be achieved to traffic flows in Cowfold through changes to the operation of the pedestrian crossing.	None/very low	it is not believed that any benefit can be achieved to traffic flows in Cowfold through changes to the operation of the pedestrian crossing.	Cowfold Air Quality Action Plan (September 2013) – Congestion Improvement Measures
7	Review on-street car parking provision and	Potential changes to on-street parking and to delivery arrangements for	- It is believed that this measure was originally identified in the Action Plan in relation to delivery arrangements to the	- Close monitoring of any proposals for new uses of the former Coop building will need to be made to ensure any	N/A	Any planning applications coming forward for use of	Cowfold Air Quality Action Plan (September

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	possible re-designation of spaces as dedicated loading bays, to reduce number of vehicles stopping on the carriageway	businesses in the centre of Cowfold	<p>Coop before it moved to the former Old Coach House pub site.</p> <p>- There are not known to be significant on-street car parking or loading issues within Cowfold affecting air quality receptor hotspot locations through the village.</p>	potential impacts on air quality will be appropriately mitigated.		the former coop building, as well as any continuing or emerging community concerns about on-street parking or loading issues should be monitored in relation to air quality impacts.	2013) – Congestion Improvement Measures
8	Promotion of alternative travel options	This includes a number of measures focusing on working with local businesses, promoting electric vehicles, improving public transport, promoting travel plans, encouraging walking and cycling, and working with schools.	<p>- Cowfold village serves a local population of approximately 1800 residents. Public transport options are limited and private car use is the primary mode of transport.</p> <p>- Although expected to be a low proportion of the overall volume of vehicle trips, engagement with Cowfold Primary School should continue in order to ensure as many local trips are made by other means to single child occupancy car use as possible.</p>	These schemes are being investigated through various delivery routes. Their direct impact on Cowfold air quality issues in the short to medium are not likely to be significant, however they form part of a wider approach of promoting a culture of using alternative travel options to single occupancy car use.	Expected low in short term	These schemes and measures are being investigated through various other delivery avenues, and are subject to different deliverability and value for money considerations.	Cowfold Air Quality Action Plan (September 2013) – Promotion of Alternative Transport Options
9	Realignment of A272 Bolney Road adjacent to Huntscroft Cottages	<p>- Re-alignment of the A272 Bolney Road away from Huntscroft Cottages (east from the junction with Fairfield Cottages).</p> <p>- Road would be re-aligned to the north.</p>	- This scheme was primarily identified as a safety improvement scheme because of the narrow footpath adjacent to Huntscroft cottages.	<p>- Further detailed investigation and design work would be needed to understand the distance of re-alignment required to move traffic away from the cottages receptor.</p> <p>- Depending on the degree of realignment required it is likely that this could affect the large trees and corner of the children's playpark so this scheme could impact the character of this area of the village.</p> <p>- The cost of the scheme is not known but is likely to be significant if underground utilities are present under the road and with the traffic management costs required. An initial estimate of the scheme cost is over £200,000.</p>	Medium	Information on the following issues is required to conclude whether this scheme is rejected or whether there are any other avenues for progressing this scheme given the initial outcome of the County Council Community Highway Scheme Process: - A formal local view from the Parish Council on whether the scheme would be locally supported given the impacts on the area around Cowfold Playing Fields and the need	

Horsham District Council

	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
				- This scheme is being assessed through the new WSCC Community Highways Scheme process and has a low benefit to cost ratio, so may not be selected to be taken forward through the County Councils Integrated Works Programme (IWP). This assumes that no third party funding is available to support the scheme.		for some Parish Council land to be dedicated to WSCC for the works to take place. - A view from the Parish on whether there is likely to be any alternative local funding available to support the progression of this scheme.	
10	Air Quality Planning Guidance	The guidance provides advice to developers on how to address local air quality when making a planning application in Horsham District.	The Planning Advice Document: Air Quality and Emissions Reduction Guidance has been completed and has been included in the Environmental Protection Policy 24 of the recently adopted Horsham District Planning Framework (HDPF).	N/A	Unknown	Horsham District Council is looking to adopt this air quality guidance as a Supplementary Planning Document (SPD) and is progressing this.	Cowfold Air Quality Action Plan (September 2013) - District-Wide Measures
11	District emission reduction strategy	Development of the Emission Reduction Strategy is progressing with a number of key projects being developed in collaboration with partners. Notably Horsham District Council is working with the Sussex Air Partnership and eV South East to provide locations within the District to house electric vehicle rapid charge points. eV South East is a public private partnership connecting eV charge points together to benefit and encourage the growth in electric vehicles (eV) in the region.	<ul style="list-style-type: none"> - The level of future uptake of low emission vehicles and associated charging infrastructure is difficult to predict. - There is no known publically available vehicle charging infrastructure in the village. - Levels of impact on Cowfold are likely to be minimal in the short to medium term, however these measures can form part of wider promotion of low emission vehicles. 	- Unclear future uptake of low emission vehicles and demand for public charging infrastructure.	Unknown.	Horsham District Council is progressing this.	Cowfold Air Quality Action Plan (September 2013) - District-Wide Measures
12	A27	- The Road Investment	- This is expected to reduce traffic flows	- Highways England are currently	Unknown but	- Highways England	Cowfold Air


Horsham District Council


	Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	improvements	Strategy produced by DfT in March 2015 allocates a budget for the A27 schemes including the A27 Arundel bypass and A27 Worthing and Lancing improvements.	through Cowfold where longer distance traffic is avoiding the A27 due to congestion (for example longer distance journeys between Haywards Heath and Chichester).	looking at the improvement options and undertaking technical work before consultation expected in Spring 2017. - If approved, construction is currently scheduled to commence in 2021, with completion scheduled for 2023-2024.	expected low/medium	are currently looking at the improvement options and undertaking technical work before consultation in Spring 2017.	Quality Action Plan (September 2013) - Road Infrastructure Improvements DfT Road Investment Strategy for the 2015/16-2019/20 Road Period
13	Air Alert	Air pollution warning service (website, app, text message) aimed at vulnerable people, schools, health professionals and general public.	- Promotion of Air Alert is undertaken by officer support at the Sussex-air partnership. - As of July 2016, there were 50 subscribers to this service across Horsham District .	- Ensuring effective awareness of Air Alert amongst potential beneficiaries through GPs.	N/A – this is intended as an information service during periods of forecast poor air quality.	This is being progressed by officer support at the Sussex-air Partnership.	Cowfold Air Quality Action Plan (September 2013) - Air Alert – Air Pollution Early Warning System
14	Improvements in the national vehicle fleet	- Improvements in the national vehicle fleet with the uptake of low emission and Euro V/VI standard vehicles	- Notwithstanding controversies around new vehicle emissions testing and 'real-world' performance there is an apparent improvement in the national vehicle fleet which appears to be showing up in air quality monitoring data at Cowfold and at other locations. - Plotting a linear trend line across the available diffusion tube data for the highest exposure values at Huntscroft Cottages suggests that this should come within compliance (40 µg/m ³) by 2016 and within 10% of the compliance limit by 2022/23 (36 µg/m ³), notwithstanding the variability in data year-on-year. - Some other AQMAs within West Sussex have also shown air quality improvements over the last 5-10 years of available monitoring data, including Storrington AQMA.	- Although vehicle emissions improvement over time is likely to be more complex than a simple downward linear trend, a continual improvement in vehicle fleets is expected. - It is impossible to predict for certain the exact path of improvement in vehicle fleets and when this is expected to bring Cowfold AQMA within the compliance threshold.	Medium-High	Steering Group partners continue to encourage Government to work with industry to seek continual improvements with the national vehicle fleet. Given current monitoring data trends suggesting improvements in air quality within this and other AQMAs, this is important to consider against the business case for other substantial measures within the AQMA.	

Other measures

Next steps conclusions red-amber-green scoring definitions

 Scheme has a clear air quality benefit and appears to be deliverable. Scheme should be investigated further.

 Scheme appears that it may have an air quality benefit, however the scale of this benefit is unknown, and/or the deliverability of the scheme is unclear. The scheme could potentially be investigated further.

 Scheme is expected to have little or no expected air quality benefit and/or is not viable.

 Scheme is being developed through other delivery mechanisms.

Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
The development of a local Air Quality Planning Policy Guidance document.	The guidance provides advice to developers on how to address local air quality when making a planning application in Horsham District.	The Planning Advice Document: Air Quality and Emissions Reduction Guidance has been completed and has been included in the Environmental Protection Policy 24 of the recently adopted Horsham District Planning Framework (HDPF).	N/A	Unknown	Horsham District Council is looking to adopt this air quality guidance as a Supplementary Planning Document (SPD).	Cowfold Air Quality Action Plan (October 2012) - District-Wide Measures
The adoption of a District Emission Reduction Strategy.		Development of the Emission Reduction Strategy is progressing with a number of key projects being developed in collaboration with partners. Notably Horsham District Council is working with the Sussex Air Partnership and eV South East to provide locations within the District to house electric vehicle rapid charge points. eV South East is a public private partnership connecting eV charge points together to benefit and encourage the growth in electric vehicles (eV) in the region.	<p>- The level of future uptake of low emission vehicles and associated charging infrastructure is difficult to predict.</p> <p>- Levels of impact on Cowfold are likely to be minimal in the short to medium term, however these measures can form part of wider promotion of low emission vehicles.</p>	Unknown	Horsham District Council is progressing this work	Cowfold Air Quality Action Plan (October 2012) - District-Wide Measures

Horsham District Council

Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references																																													
Air Alert service	Air pollution warning service (website, app, text message) aimed at vulnerable people, schools, health professionals and general public.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Subscribers by registered authority</th> <th style="text-align: center;">Active subscribers</th> <th style="text-align: center;">%</th> </tr> </thead> <tbody> <tr><td>Adur</td><td style="text-align: center;">55</td><td style="text-align: center;">7%</td></tr> <tr><td>Arun</td><td style="text-align: center;">46</td><td style="text-align: center;">6%</td></tr> <tr><td>Brighton and Hove</td><td style="text-align: center;">135</td><td style="text-align: center;">17%</td></tr> <tr><td>Chichester</td><td style="text-align: center;">46</td><td style="text-align: center;">6%</td></tr> <tr><td>Crawley</td><td style="text-align: center;">45</td><td style="text-align: center;">6%</td></tr> <tr><td>Eastbourne</td><td style="text-align: center;">76</td><td style="text-align: center;">10%</td></tr> <tr><td>Hastings</td><td style="text-align: center;">49</td><td style="text-align: center;">6%</td></tr> <tr><td>Horsham</td><td style="text-align: center;">49</td><td style="text-align: center;">6%</td></tr> <tr><td>Lewes</td><td style="text-align: center;">82</td><td style="text-align: center;">10%</td></tr> <tr><td>Mid Sussex</td><td style="text-align: center;">61</td><td style="text-align: center;">8%</td></tr> <tr><td>Rother</td><td style="text-align: center;">34</td><td style="text-align: center;">4%</td></tr> <tr><td>Wealden</td><td style="text-align: center;">58</td><td style="text-align: center;">7%</td></tr> <tr><td>Worthing</td><td style="text-align: center;">59</td><td style="text-align: center;">7%</td></tr> <tr><td>Total number of active subscribers</td><td style="text-align: center;">795</td><td></td></tr> </tbody> </table>	Subscribers by registered authority	Active subscribers	%	Adur	55	7%	Arun	46	6%	Brighton and Hove	135	17%	Chichester	46	6%	Crawley	45	6%	Eastbourne	76	10%	Hastings	49	6%	Horsham	49	6%	Lewes	82	10%	Mid Sussex	61	8%	Rother	34	4%	Wealden	58	7%	Worthing	59	7%	Total number of active subscribers	795			Unknown	Horsham District Council is progressing this work	Cowfold Air Quality Action Plan (October 2012) - Air Alert – Air Pollution Early Warning System
Subscribers by registered authority	Active subscribers	%																																																	
Adur	55	7%																																																	
Arun	46	6%																																																	
Brighton and Hove	135	17%																																																	
Chichester	46	6%																																																	
Crawley	45	6%																																																	
Eastbourne	76	10%																																																	
Hastings	49	6%																																																	
Horsham	49	6%																																																	
Lewes	82	10%																																																	
Mid Sussex	61	8%																																																	
Rother	34	4%																																																	
Wealden	58	7%																																																	
Worthing	59	7%																																																	
Total number of active subscribers	795																																																		
Working with local businesses	<p>Alternative Refuelling Options: Encourage provision of electric vehicle charging points at local business and public car parking spaces. Ensure compatibility of EV charging points to enable link to “Charge your Car” pay as you go network. Encourage development of Compressed Natural Gas (CNG) refuelling network across the district via private companies and as part of a district alternative fuel strategy (See District-wide AP measures).</p> <p>Home delivery scheme: Encourage through businesses use of low emission delivery vehicles with possible link to district Compressed Natural Gas (CNG) refuelling strategy.</p>	<p>Measure incorporated into Planning Advice Document. Review undertaken of HDC vehicles at Cowfold transport depot to establish opportunities for upgrading/ replacing with low emission vehicles.</p> <p>HDC has successfully bid for support from the Department for Transport (DfT) under Phase Two of the ULEV Readiness Project. A grant offer was received in November 2015 from DfT in respect of three vehicles. The grant will contribute 75% of the cost of 24-month eV vehicle leases for three vehicles: one Nissan Leaf car and two Peugeot Partner vans. The grant will also cover the costs of the installation and maintenance of one charge point per vehicle.</p> <p>There is currently a slow EV charger installed in Cowfold. A Rapid EV charger to be installed.</p>		Unknown but expected low	These schemes are being investigated through various other delivery avenues, and are subject to different feasibility and value for money considerations.	Cowfold Air Quality Action Plan (October 2012) - Promotion of Alternative Transport Options																																													

Horsham District Council

Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	<p>Community minibus – enhance existing Cowfold minibus service by replacing existing diesel fleet with Low /Zero emission vehicles. Funded by local businesses or new developments via planning contributions, possible link to CNG refuelling strategy.</p> <p>Improve local bus service – Liaise with local PSV operators to restrict vehicles entering AQMA to Euro IV/V standard. Consider subsidising strategic bus services to village schools via grant funding/Section 106 contributions to address ‘school-run’ traffic peaks. Investigate provision of local real-time bus information at bus stops to promote use.</p> <p>Transport Plans/ Travel Plans: Promote to existing businesses and new developments innovative solutions: e.g. low emission incentives; driver training; car share schemes; car clubs.</p> <p>Freight Delivery Partnership: Encourage use of WSCC preferred lorry route rather than</p>					

Horsham District Council

Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	A283 through Cowfold AQMA; investigate opportunities for local and shared deliveries; Encourage use of low emission delivery vehicles to local stores within AQMA, provide links to CNG refuelling strategy.					
'Cowfold in Bloom'	Introducing recognised pollution absorbing plants and planting methods into the village to improve air quality within the AQMA	It was established that there are no suitable sites for tree planting in West Street or the High Street so the project cannot be progressed.		Unknown	As there are no suitable sites, this strategy cannot be progressed.	
Smarter Choices	<p>Encouraging walking and cycling: Promote bike rental scheme with local cycle business, seek funding for improvements to local walking and riding paths, improve signage, provision of secure bike storage and bike racks at local car parks, train station car parks, encourage cycling/walking via promotion in local shops e.g. you 'shop we drop' schemes. Liaise with WSCC and Sustrans to improve facilities and encourage uptake.</p> <p>Working with schools: Work with WSCC to enhance school travel plans, identify safety improvements to encourage walking, cycling walking buses etc.</p>	<p>Preliminary review of current facilities. Further meeting with Parish Council to be arranged. Feasibility study to be considered to assess suitability of car club in Cowfold by looking at demographics etc.</p> <p>Measures incorporated into Planning Advice Document for new developments. WSCC School Travel Coordinator identified key walking/ cycling routes requiring improvement. Scoping report in progress for provision of car club to village.</p>	These schemes are being investigated through various delivery routes. Their direct impact on Cowfold air quality issues in the short to medium are not likely to be significant, however they form part of a wider approach of promoting a culture of using alternative travel options to single occupancy car use.	Unknown but expected low	These schemes are being investigated through various other delivery avenues, and are subject to different deliverability and value for money considerations.	Cowfold Air Quality Action Plan (October 2012) – Smart Choices

Horsham District Council

Scheme	Description	What do we know about this scheme?	What are the main issues associated with this scheme?	Anticipated AQMA air quality benefit (L/M/H)	Next steps recommendations	Supporting Evidence references
	Contribute to air quality awareness education programmes. Link to WSCC LTP3 initiatives.					

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
HDC	Horsham District Council
HGV	Heavy Goods Vehicle
LAQM	Local Air Quality Management
LGV	Light Goods Vehicle
NO ₂	Nitrogen Dioxide
NO _x	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 less
WSCC	West Sussex County Council

References

Department for Environment, Food and Rural Affairs (DEFRA) (2018) *Local Air Quality Management Technical Guidance. LAQM.TG(16)*.

Department for Environment, Food and Rural Affairs (DEFRA) (2016) *Local Air Quality Management Policy Guidance. LAQM.PG(16)*.

Horsham District Council (HDC) (2020) *LAQM 2019 Air Quality Annual Status Report (ASR)*.

Horsham District Council (HDC) (2013) *Cowfold Air Quality Action Plan*. Prepared September 2013.