Gloucestershire Air Quality and Health Strategy

Developed by the Gloucestershire Air Quality and Health Partnership

Report authors

Dave Mc Conalogue, Gloucestershire County Council

Philip Williams, Gloucestershire County Council

Maria Arthurs-Hartnett, Gloucestershire County Council

Tom Beasley, Active Gloucestershire

Jo Atkins, Gloucestershire County Council

Liz Kirkham, Gloucestershire County Council

Members of the Gloucestershire Air Quality and Health Partnership

Contents

1	Int	troduction	3
2	Ва	ackground	4
	2.1	What is Air Quality?	4
	2.2	Policy and Legislation	5
3	Stı	rategy Development Process	7
	3.1	Strategy Development Coordination Delivery and Oversight	7
	3.2	Key Informants of the Strategy	8
4	Stı	rategy Vision and Aims	10
	4.1	Strategy vision	10
	4.2	Strategy aims	10
5	Ke	ey strategic areas for delivery	11
	5.1	Public Engagement	11
	5.2	Air Quality Monitoring and Information	11
	5.3	Active Travel	12
	5.4	Planning and Policy	13
	5.5	Ultra Low Emission Vehicles (ULEVs)	13
	5.6	Cleaner Fleets and Public Transport	14
6	Go	overnance Arrangements	16
7	Ev	aluation and objective setting	16
8	Ris	sks and Mitigation	16
9	Fu	ınding and Finance	16

1 Introduction

The Gloucestershire Air Quality and Health strategy describes the strategic approach in Gloucestershire to improving air quality and mitigating its impact on health as it relates to nitrogen oxides and particular matter (with recognition that this scope may increase as evidence and priorities develop). The strategy has been developed to be delivered through a partnership approach across agencies, professionals and members of the public who are active in Gloucestershire. This strategy document summarises: background to air quality and health; the strategy development process; strategy vision and aims; key strategic areas for delivery; governance process for strategy delivery; approach to risk management; timeline for strategy delivery; evaluation; and financing. The strategy will drive the strategy delivery plans which will be development and implemented through work stream delivery groups.

2 Background

2.1 What is Air Quality?

Air quality is a measure of the degree to which the air in a given location is free from any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere. Key sources of air pollution in the UK include transport, energy production, industry and manufacturing, domestic combustion, and farming. Once released, pollution is dispersed and can travel great distances within and between countries. Poor air quality is a source of inequality, where those with the poorest health and life expectancy are also the more likely to be exposed to poor air and suffer the poorest outcomes.

It is estimated that there are 340,000 life years lost and 40,000 premature deaths attributable to poor outdoor air quality in the UK every year. There is no safe level of exposure to key air pollutants such as nitrogen oxides and particulate matter. Exposure to poor air quality contributes to the development of long term conditions, and shorter life expectancy. It also results in both acute admissions to healthcare services, and long term health and social care needs. Children, pregnant women, the elderly and those with pre-existing cardiovascular or pulmonary disease (or those at risk of developing these) are particularly vulnerable. However, poor air also quality represents a risk to the whole population, regardless of their health or stage of life. The impacts from exposure to poor air quality are felt both through long and short term exposures.

The key pollutants contributing to poor air quality are: particulate matter, nitrogen dioxide, carbon monoxide, carbon dioxide, sulphur dioxide, and low level ozone. While all of these pollutants contribute to poor human health outcomes, this strategy focuses on particulate matter and nitrogen dioxide as identified as most amenable to action at the local level in Gloucestershire, and also as the focus of national strategy and European directives.

Nitrogen Oxides (NOx)

Nitrogen oxides are a group of gases formed during the combustion of fossil fuels. Nitrogen Dioxide (NO₂) is the most notable of this group of gases in terms of its impact on health. In Gloucestershire the principle local source of NO₂ which the population is exposed to is from road transport. The Department for Environment, Food & Rural Affairs (Defra) estimates that 80% of NOx emissions in areas in which the UK is exceeding NOx limits are due to transport, with the largest source being emissions from diesel cars and vans². NOx exposure has a negative impact on health from both short and long term exposure. There is evidence of a strong relationship between short term NOx exposure and prevalence of respiratory conditions, particularly asthma in children. There is also a developing evidence base regarding the poor outcomes in terms of health and life expectancy from longer term exposure.

Particulate Matter

pollution/health-matters-air-pollution

¹ Every breath we take: the lifelong impact of air pollution, RCP, https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution
² Health matters: air pollution, PHE, https://www.gov.uk/government/publications/health-matters-air-pollution

Particulate matter describes pollution which is mixture of solid particles and liquid droplets. PM₁₀s and PM_{2.5}s (particles less than 10 and 2.5 micrometers in diameter respectively) are of most interest as they are fine inhalable particles which can be absorbed into the lung tissue, and even into the blood for the finest particles. In Gloucestershire the main local sources are from combustion of fuel, road use and brake dust. There is strong body of evidence of impacts of both short and long term exposures to particulate matter. Exposure increases mortality and morbidity from cardiovascular and respiratory diseases, including coronary heart disease, stroke, asthma, and lung cancer.³ There is a developing evidence base for a link between exposure to particulate matter and poorer early childhood development as well as the development of central nervous system conditions such as Alzheimer's and Parkinson's disease.⁴

2.2 Policy and Legislation

National policy and legislation

The UK has statutory obligations not to exceed specified limits on concentrations in outdoor air of major air pollutants under EU legislation.⁵ The Clean Air Strategy and the UK plan for tackling roadside nitrogen dioxide concentrations' commits the UK to improving air quality and reducing the impact of NOx and PMs on the health of the population. The national strategy further commits the UK to emission reduction targets for overall emissions of five damaging air pollutants, including PM_{2.5} and NOx.⁷

Local Authority responsibilities

Local authorities (district councils within Gloucestershire) have a statutory duty to monitor air quality and designate Air Quality Management Areas (AQMAs) where pollution exceeds specified limits, and to put a plan in place to tackle the issue. The national Clean Air Strategy has presented the options for reforming the local legislative framework for tackling air pollution. These include shifting the focus to prevention, facilitating more collaborative action across local government and other relevant bodies, and a greater emphasis on protecting the public during Air Pollution Episodes (APEs).⁸ The County Council as the Highways authority has a strong role in helping to manage air quality where identified by District Authorities.

Air Quality and Health in Gloucestershire

A Health and System Impact Assessment (HSIA) was carried out for Gloucestershire under the direction of the Gloucestershire Members' Task Group on Air Quality and Health. The HSIA included a review of data and epidemiology related to air quality and health in Gloucestershire. The following is a summary of the key findings of this systematic review.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/63 3269/air-quality-plan-overview.pdf

5

³ Health matters: air pollution, PHE

⁴ Committee on the medical effects of air pollutants. Statement on the evidence for the effects of nitrogen dioxide. London: COMEAP, 2015

⁵ https://uk-air.defra.gov.uk/assets/documents/Air_Quality_Objectives_Update.pdf

⁷ Clean Air Strategy, DEFRA

⁸ Clean Air Strategy, DEFRA

Gloucestershire's air quality

Air quality levels for PM_{2·5} in Gloucestershire are in line with regional averages. However, there is marked variation between and within districts. Estimated levels are highest in Tewkesbury and Cheltenham, which are both higher than regional averages. PM₁₀estimates show the highest concentrations are in the Churchdown and Ashchurch areas of Tewkesbury and the west of Cheltenham.

The highest estimated concentrations for nitrogen dioxide are in North Gloucester, Cheltenham and around Gloucestershire Airport. 16 NO₂ monitoring sites across the county are exceeding WHO recommended target levels for NO₂. 11 of these sites are located in Cheltenham district, 4 were located in Gloucester and 1 is located in Cotswold at the Air Balloon Roundabout.

There are 8 air quality management areas (where national air quality targets are not being achieved) in Gloucestershire. The majority are located in urban areas or in the case of Cotswold at a major road junction (the Air Balloon junction, Birdlip).

Exposure to poor air quality in Gloucestershire

Within Gloucestershire there are nine Lower Super Output Areas that exceed the recommended levels for Nitrogen Dioxide, of these two are in the most deprived 20% of the country in terms of indices of multiple deprivation. Air pollution is a health inequality issue as the most deprived experience disproportionate exposure to poor air quality. Moreover, areas with the worst exposure to poor air quality also have the lowest levels of car ownership so contribute less to the pollution. Conversely, areas with the highest levels of car ownership have less exposure to poor air quality.

In Gloucestershire children (who are more vulnerable to the effects of poor air quality) also have on average higher levels of exposure than other age groups.

Data for Gloucestershire suggests that those who are already reliant on adult social care also have a higher exposure to poor air quality. This exposure can be a substantial risk factor for poorer health outcomes, development or exacerbation of long term conditions, acute episodes of hospital care, or increased reliance on health and social care services.

Protective factors

Gloucestershire has high rates of car use for travel to work compared to the rest of the UK. According to the most recent census, approximately 76% of people in Gloucestershire travel to work by car, compared to 66% nationally. Even where journeys to work are less than two kilometres, a much lower proportion are made on foot or by bicycle than in the rest of the UK. Levels vary substantially within the county between rural and urban areas.

-

⁹ 2011 Census, ONS

3 Strategy Development Process

The development of the Gloucestershire Air Quality and Health Strategy originates from the work of the Gloucestershire County Council Members' Task Group on Air Quality and Health. This group was set up to review air quality and its relationship to health in Gloucestershire. The Member's Task Group directed the completion of a Health and System Impact Assessment (HSIA) for air quality and health in Gloucestershire. The HSIA was used to inform members' recommendations to the Gloucestershire Environment and Communities Overview and Scrutiny Committee, and the Gloucestershire County Council Cabinet.

The Member's Task Group recommendations covered a range of areas, including: policy and planning, electric vehicles, and active travel. Three key recommendations from the Members' Task Group related to the development and implementation of the strategy include:

- Development of an Air Quality and Health Partnership, comprising of representatives from both public and private sector organisations
- Gloucestershire Air Quality and Health Partnership develop a strategy to address air quality and health within Gloucestershire
- Gloucestershire Air Quality and Health Partnership report into the Gloucestershire Health and Wellbeing Board on strategy development and implementation

3.1 Strategy Development Coordination Delivery and Oversight

The development of the strategy has been directed through three key levels of governance: the Gloucestershire Health and Wellbeing Board (HWB); the Gloucestershire Air Quality and Health Partnership; and the Air Quality and Health work stream delivery groups (figure 1).

Role of Gloucestershire Health and Wellbeing Board

The Gloucestershire Health and Wellbeing Board (HWB) is the central point of governance for the development of the strategy and its implementation. The Partnership will present the draft strategy to HWB for its review, amendment and sign-off. Following the approval of the strategy, the Partnership will present annual reports to HWB to update on the progress of the strategy implementation.

Role of the Gloucestershire Air Quality and Health Partnership

The Partnership has overall responsibility for directing the development and implementation of the strategy. The Partnership has developed the approach for the strategy development and directed the creation and coordination of work stream delivery groups. The Partnership will approve the draft strategy for presentation to HWB.

Role of the Air Quality and Health Work Stream Delivery Groups

The Partnership has created three multi-agency, multi-professional, work stream delivery groups on: air quality monitoring and behaviour change; active travel; and electric vehicle and fleet. The purpose of these groups is to help inform the development of the strategy, and once the strategy has been agreed to develop work plans for its delivery.

Environment and Health and Care Health and Communities **Overview Scrutiny Wellbeing Board** Committee* Scrutiny Committee* (Report into) (Provide update on (Provide update on progress) progress) Gloucestershire Air **Quality and Health Partnership Air Quality Electric Vehicles** Monitoring and **Active Travel** and Clean Fleet Behaviour Change sub-group sub-group sub-group

Figure 1: Overview of strategy development coordination delivery and oversight

3.2 Key Informants of the Strategy

The Gloucestershire Air Quality and Health Strategy has been developed based on the contributions of a wide range of stakeholders from private and public bodies, and a range of professions and knowledge bases. The Strategy has also been informed by the evidence base about what works to improve air quality and mitigate its impact on health, and local data on air quality and health in Gloucestershire. The following provides a brief overview of the principal sources used to inform the Strategy:

Gloucestershire Air Quality and Health System Impact Assessment

The Health and System Impact Assessment (HSIA) was a systematic approach to the consideration of data and evidence regarding air quality and health in Gloucestershire. The HSIA summarised evidence of the relationship between air quality and health, and the interventions to improve air quality or mitigate its impact on health at the local level. It also includes a comprehensive review of data on air quality in Gloucestershire, relevant health outcomes, and associated information including levels of active travel. The HSIA included strong participation from a range of stakeholders across Gloucestershire through a workshop involving 55 delegates. The findings from the HSIA were summarised in a set of recommendations which were presented to the Members' Task Group.

Members' Task group on air quality and health

The Gloucestershire Air Quality and Health Members' Task group was a cross party group, supported by County Council officers. Informed by the HSIA and member discussions the group agreed a set of recommendations, which covered: air quality monitoring;

^{*}Structure of scrutiny committees currently under review

establishment of Air Quality and Health Partnership; development of an air quality and health strategy for Gloucestershire; digital air quality information sharing; consideration of air quality and health in planning and transport policy; strengthening of the local transport plan regarding air quality and health; uptake of electric vehicles; uptake of active travel; and cleaner vehicle fleets. The recommendations were presented for endorsement to the Environment and Communities Overview and Scrutiny Committee and Gloucestershire County Council Cabinet.

Air quality and health strategy development workshop

The Partnership group set up a multi-agency, multi-professional workshop to identify and prioritise initiatives for inclusion in the Gloucestershire Air Quality and Health Strategy. The workshop was attended by more than 60 delegates from private and public bodies. The delegates were divided into groups to discuss opportunities, challenges and priorities regarding: active travel; air quality monitoring; behaviour change; policy and planning; and electric vehicles and clean fleet. The outputs from the workshop were developed into a thematic strategic review.

Partnership and work stream delivery groups

The partnership reviewed the draft key strategic themes, which were derived from the integration of the three sources of information detailed above. As part of the Partnership's strategy development process, the work stream delivery groups were tasked with reviewing the strategic themes and agreeing amendments. Once the work stream delivery groups had completed their review, the Partnership agreed the final strategy.

The key strategic areas identified in section five are the agreed outputs from the strategy development process detailed above.

4 Strategy Vision and Aims

4.1 Strategy vision

For organisations, professionals and the public across Gloucestershire to work together to improve air quality in the county and reduce the impact of air pollution on human health and the environment. To contribute to the vision of Gloucestershire as a prosperous, happy, healthy, and sustainable county.

4.2 Strategy aims

The key aims of the strategy are to:

- Bring about a significant and measurable improvement to air quality in Gloucestershire through joined-up working to implement cost-effective measures.
- Reduce the impact of poor air quality on the health of residents, workers and visitors, and the environment.
- Raise public awareness of air quality, its impact on health and personal protection measures in order to promote sustainable behaviour change.
- Increase our understanding of the state of air quality in Gloucestershire and the impact of measures to improve air quality.
- Meet and exceed statutory obligations and national targets on air quality.

The strategy focuses on the impact of air quality as related to particulate matter and nitrogen dioxide as these are the most amendable to action at the local level. However, the strategy recognises the developing evidence base regarding the relationship between air quality and health, and the need to be flexible in the approach to improving air quality and minimising its impact on health as directed by the evidence.

5 Key strategic areas for delivery

This section describes the key deliverables to achieve the strategy vision and aims. It reflects the evidence base for what works to improve air quality related to particulate matter and nitrogen dioxide, the Gloucestershire context, and the views and expertise of a range of organisations and professions.

5.1 Public Engagement

It has been acknowledged throughout the strategy development process that relatively little is known about the views and understanding of the public in Gloucestershire regarding air quality and health. It is important that we take steps to understand the public's views, knowledge and motivations, in order that they can be engaged in developing actions which are aligned with their priorities. This should be developed in partnership with all work stream delivery groups to ensure a joined up approach to communications. The outcomes will be used to ensure a joined up approach for the delivery of the Gloucestershire Air Quality and Health Strategy and to inform the approaches of the three sub-groups in their areas of specialism.

- **5.1.1 Public survey**: Review options for a public survey, either aimed at the general public or targeting a specific group (e.g. primary schools).
- 5.1.2 Public engagement in addressing air quality: Review opportunities to engage the public in the development of interventions to improve their knowledge and understanding of air quality and health, and their role in protecting their communities. This work should be completed through community groups and agencies that already have established relationships with target groups.

5.2 Air Quality Monitoring and Information

Air quality monitoring data in Gloucestershire is currently limited in scope and restricted to NOx levels. The local understanding of air quality relies heavily on modelled data, which has some substantial limitations. Efforts to improve the scope of monitoring should be directed towards informing action on air pollution. A more accurate picture of air pollution in the county will support partners to develop interventions and monitor their impact on air quality more effectively.

- **5.2.1 Monitoring particulate matter (PM)**: Gloucestershire should explore options for monitoring PM. There is a strong evidence base for the negative impact of particulate matter on health, however, in Gloucestershire we do not currently monitor PM.
- **5.2.2 Improving the coverage of air quality monitoring**: The current coverage of air quality monitoring in Gloucestershire should be reviewed and inform a plan to improve the coverage of air quality monitoring in the short, medium and longer term.
- **5.2.3 Engaging the public in monitoring**: The public have a key role to play in contributing to the understanding of air quality and this should be considered as part of air quality monitoring plans for Gloucestershire.

The public have limited access to data on air quality in Gloucestershire. The data must be made available to the public through mediums with which they can easily engage, to support

positive behaviour change and the actions which they can take to protect themselves and their communities.

- 5.2.4 Integrating air quality data with other data sources: Opportunities to join up data sources to improve understanding of the relationship between air quality and health should be explored. This should include, but is not limited to qualitative data; consideration of health outcomes; healthcare activity; road traffic information; road safety information; policy and planning decisions; among other appropriate data sources identified.
- 5.2.5 Digital solutions to air quality data availability: A digital solution to make air quality and related health data available to the public should be explored. This should make data available in ways which members of the public can use to make decisions to protect themselves, and to reduce their negative impact on air quality. The solution should also support private and public sector organisations to reduce their impact on poor air quality and to help engender positive behaviour change in the members of their organisation.
- 5.2.6 Identify information sharing opportunities: The public in Gloucestershire receive regular information through a range of well established mediums (weather and traffic reporting etc.). Partners who already have large captive audiences should be engaged on the issue of air quality and health, to identify opportunities to disseminate data and information to the public in more effective ways.

5.3 Active Travel

Switching journeys from cars to walking, cycling and public transport not only has a large beneficial impact on the individual's health, but a wider benefit to the population health as there are corresponding decreases in overall air pollution levels. There are also subsequent impacts in term of health improvement from increased activity levels. This area will be led by the Active Travel work stream delivery group, with support from the other work stream delivery groups.

Public and private sector organisations as well as the public should be communicated with to support their understanding and uptake of active travel. This communications plan should focus on actions to support behaviour change to improve the uptake of active travel.

5.3.1 A pilot health promotion, health education, and behaviour change initiative: A pilot should be co-designed with target groups and build on the results of the public survey. The pilot should inform future plans to support behaviour change regarding active travel in Gloucestershire. This should be developed in partnership with all sub-groups to ensure a joined up approach to communications.

It is important that schools and workplaces are supported to develop plans which promote active travel options. This should include consideration of actions to promote the uptake of, and to remove barriers to, active travel. This work should act as a catalyst for behaviour change and modal shift to green travel.

5.3.2 School travel plans: Work with schools to develop dynamic travel plans that support pupils, families and staff to engage in active travel to and from school.

This may include working directly with specific schools to develop their travel plans, or by developing a template dynamic travel plan for schools to complete.

5.3.3 Workplace travel plans: Work with employers to develop travel plans which enable their staff to utilise active travel options between work locations, and between work and home, and onward work journeys. This may include workplace and health programmes to engage workplaces and support the adoption of a template best practice travel plan, and/or to engage specific larger employers to develop travel plans which promote an increase in the uptake of active travel. This work area should also include Universities in Gloucestershire (both students and staff) and work to lever the substantial expertise and drive of locally funded programmes such as Active Gloucestershire.

5.4 Planning and Policy

Measures to improve air quality are highly cost-effective when integrated into the planning and policy process. ¹⁰ Planning and policy will be critical to providing an environment which promotes the uptake of active travel and ULEVs as an alternative to other options. This should be developed in partnership across all three work stream delivery groups.

- 5.4.1 Development of guidance and frameworks for planners and developers:
 Guidance and frameworks should be developed with and for planners to support measures to improve air quality and identify and address developments which may worsen air quality. This should also look at how to promote investment in active travel and electric vehicle charging infrastructure, and be part of a joined up approach with other green infrastructure planning initiatives including the Building with Nature benchmark.¹¹
- 5.4.2 Consultation into planning and policy strategy: The Gloucestershire Air Quality and Health Partnership should review draft plans and actively engage in consultations to help shape strategies to be effective in promoting air quality improvement measures. Key transport and planning strategies should be identified, including Gloucestershire's Vision 2050, the Local Transport Plan, the Industrial Strategy, and the Local Energy Strategy.
- 5.4.3 Identifying key infrastructure for active travel improvements: Key plans and interventions to improve current travel infrastructure to make it more amenable to active travel should be developed and prioritised. This work should be aligned with work on implementing the Building with Nature benchmark. Once these plans have been agreed for prioritisation, funding opportunities can be pursued.

5.5 Ultra Low Emission Vehicles (ULEVs)

There are a range of low emission vehicle options which includes electric vehicles. Whilst none of these options are completely non-polluting, switching to a low emission option when journeys have to be made by vehicle has the potential to substantially reduce the pollution

-

¹⁰ Ibid

¹¹ https://www.gloucestershirewildlifetrust.co.uk/what-we-do/our-work/research-and-publications/building-nature

caused by road traffic. This area will be led by the Electric Vehicles and Clean Fleets work stream delivery group, with the support of the other sub-groups.

The infrastructure supporting low emission vehicles, particularly electric vehicles in the short term, is not currently developed enough to make ULEVs a viable option for most individuals and organisations in Gloucestershire. Promoting the uptake of ULEVs thus must include developing the supporting infrastructure.

- **5.5.1** Review charging infrastructure and related business opportunities: Review the current electric vehicle charging infrastructure and make recommendations for the positioning of charging points with specific timelines for delivery. Business opportunities to provide charging facilities should be pursued.
- 5.5.2 Prioritise funding opportunities for Gloucestershire County Council's electric car charging budget: Make recommendations to the Lead Commissioner in charge of this budget regarding investment priorities to support the uptake of low emission vehicles.
- **5.5.3 Keep up to date with evolving ULEV technology**: Stay up to date with technological developments in low emission vehicles in order that Gloucestershire can future-proof its implementation.

ULEVs, particularly electric vehicles and electric bikes, are increasingly in the public spotlight but many myths persist which can dissuade people from using them. Incentivising and promoting the uptake of ULEVs is essential to increasing their use and ensuring that investments in infrastructure are worthwhile.

- 5.5.4 Develop a communications plan to promote the uptake of ULEVs: This may include events and/or campaigns and should focus on the benefits to individuals and organisations of adopting low emission vehicle options, including electric vehicles and electric bikes. This should be developed in partnership with all subgroups to ensure a joined up approach to communications and behaviour change.
- **5.5.5 Identify partnerships with key employers in Gloucestershire**: Identify and work with some key employers in Gloucestershire, supporting these workplaces to incorporate ULEVs into their travel plans and infrastructure.
- 5.5.6 Utilise parking incentives to encourage low emission vehicle uptake:

 Review the potential to promote the uptake of ULEVs through the provision of designated low emissions parking spaces at key strategic parking sites, including park and rides, offices, hospitals, town centres, and public attractions.

5.6 Cleaner Fleets and Public Transport

Public sector organisations in Gloucestershire account for a substantial proportion of motorised vehicle journeys, through employee commutes and work-related travel, or contracted services. It is important that public sector bodies lead by example in terms of reducing the negative impact on air quality of their operations, and the operations of services that they contract. The focus of this area is to identify opportunities to improve fleet vehicles and to encourage improvements in their contracted service providers' fleet. This area will be led by the Electric Vehicles and Clean Fleets work stream delivery group, with the support of the other sub-groups.

- 5.6.1 Improve standards of fleet vehicles through fleet replacement policies: Public sector organisations operating in Gloucestershire should be encouraged to review their policies on fleet vehicle replacement. They should be supported to review their approach to adopt plans which result in a low emission fleet. This should include development and sharing of best practice, and monitoring public sector fleet replacement policies.
- 5.6.2 Improve standards of fleet vehicles through contracting arrangements: Public sector organisations should be encouraged to review their contracting arrangements to promote best practice in lowering the emissions of their contracted services. Sharing of good local practice should be a key element of this work.

Public transport (buses and taxis/private hire) has a strong role to play in improving air quality in Gloucestershire. It is important that public transport operators are encouraged and supported to improve vehicles to the least polluting option. Given the importance of affordable and practical public transport to reducing transport-related emissions, careful consideration of viability will accompany all efforts to improve the standards of public transport vehicles.

5.6.3 Utilise mechanisms to promote the adoption of low emission vehicles for all public transport fleet (including taxis and private hire vehicles): Local authorities should review their mechanisms for influencing vehicle standards in public transport to incentivise low emission options and disincentivize polluting ones. This work will need to identify a fair and manageable process to promote vehicle fleet upgrades within an agreed timeframe.

As well as the specification of the vehicle, the way a person drives can reduce emissions, along with related benefits to fuel efficiency and road safety. Gloucestershire should review opportunities to introduce 'cleaner driving' measures in public transport, public sector fleets and contracting, and through influencing businesses. As a behaviour change initiative, this should be developed in partnership with all three sub-groups, but led by the Electric Vehicles and Clean Fleets work stream delivery group.

- 5.6.4 Provide opportunities for training and education to promote cleaner driving: This should focus on promoting the adoption of smooth driving techniques, highlighting the fuel saved and improved air quality as an incentive. This work should also review the potential for employers to introduce incentives to employees/teams for cleaner driving.
- **5.6.5 Utilise smart technology for vehicles to support cleaner driving**: Partners have already developed technology to support cleaner driving. Opportunities to share and promote this technology should be reviewed.
- 5.6.6 Sign-up to and promote schemes for businesses which promote cleaner driving: There are existing programmes and certification schemes which aim to promote cleaner, safer and more efficient driving for businesses which Gloucestershire should consider promoting to private and public sector organisations.

6 Governance Arrangements

The Gloucestershire Air Quality and Health Partnership (GAQHP) is a multi-agency group which has responsibility for the development and implementation of the Gloucestershire Air Quality and Health Strategy. GAQHP is made up of stakeholders from the following organisations: Gloucestershire County Council Cabinet Members; Gloucestershire County Council Officers; District Environmental Health services; Gloucestershire Local Enterprise Partnership; Chairs of Air Quality and Health delivery work groups; Gloucestershire NHS Clinical Commissioning Group; Gloucestershire Hospitals NHS Foundation Trust; Gloucestershire University; Gloucestershire Rural Community Council; Stage Coach; schools representatives; Gloucestershire Local Nature Partnership; Gloucestershire Police Constabulary; as well as members and organisations co-opted as required to inform or advance the strategy and work plans.

The Partnership reports into the Gloucestershire Health and Wellbeing Board (HWB). The HWB will provide overall governance for the Strategy development and implementation. The GAQHP will present the draft strategy to HWB for revision and sign off. Additionally, the GAQHP will present an annual report to the HWB detailing progress against the strategy. The HWB may also require exception reporting from GAQHP should issues be identified which the Board require further clarification on.

The GAQHP will coordinate the implementation of the strategy through three work stream delivery groups: air quality monitoring and behaviour change; active travel; and electric vehicles and clean fleets. The work stream delivery groups are multi-agency, multi-professional groups with responsibility for the development and delivery of work plans to implement the strategy. Work plans will be signed off by the GAQHP, and groups will report on progress to the GAQHP.

Owing to the implications for health and the environment of the strategy, both the Health and Care Overview and Scrutiny Committee (HCOSC) and the Environment and Communities Overview and Scrutiny Committee (ECOSC) will provide overview and scrutiny regarding the implementation of the strategy. The Director for Public Health and the Director for Place from Gloucestershire Country Council will provide annual updates to HCOSC and ECOSC respectively.

7 Evaluation and objective setting

This is a medium term strategy with a timeline for completion of between three to five years. Specific timed milestones will be included in the work plans of the work stream delivery groups, which will be agreed by the GAQHP.

The work plans will be reviewed, approved and monitored by the GAQHP. The partnership will require that work plans include specific measurable objectives for delivery. The partnership will review progress against measureable objectives which will also be reported to the HWB. The 1st annual report from the GAQHP to the HWB will include a set of targets against which the delivery of the strategy will be measured. Included in the first report will be an evaluation framework and timeline for delivery. Both of these elements will be reviewed for approval by the HWB.

8 Risks and Mitigation

The Gloucestershire Air Quality and Health Partnership (GAQHP) will hold a risk register. Risks and mitigating actions will be agreed by the GAQHP, with exception reporting to the Gloucestershire Health and Wellbeing Board as part of the annual review report or by exception.

9 Funding and Finance

This strategy will be funded through funding streams and resources already in place, and through the funding provided through individual organisation initiatives, or by funding applications to local or national funding opportunities.

The GAQHP will review work group delivery plans to identify funding requirements, gaps in resources, and to agree funding priorities. It will be a core function of the GAQHP to identify and pursue funding opportunities to support the delivery of the subgroup work plans. Opportunities for funding should be pursued across organisations in the Partnership, and look to a range of sources: internal organisation; local funding mechanisms; and national funding mechanisms. The analysis of funding needs and prioritisation should be completed in the first quarter following signoff of work group delivery plans.

Organisation or professional involvement through the GAQHP or the associated work stream delivery groups will be funded from organisations' own staffing resources or personal finances.