

Air Pollution and its Impact on Public Health Scrutiny Task Group

1. INTRODUCTION

- 1.1 On 12 July 2017, the Environment and Communities Scrutiny Committee received a report on the Air Quality Schools Pilot Project. Following a discussion, the Committee agreed that a task group should be established to consider further issues relating to air pollution. The minutes for the meeting can be accessed at:

<http://glostext.gloucestershire.gov.uk/ieListDocuments.aspx?CId=673&MId=8403&Ver=4>

- 1.2 Overview and Scrutiny Management Committee agreed to the establishment of a scrutiny task group on air pollution and its impact on public health. The ambitions of the task group were to:

- Understand the effects of air pollution on public health and which communities within the County are particularly affected;
- Consider actions Gloucestershire County Council and partners could take to reduce air pollution and its effects on public health, taking into account national legislation on air pollution and the evidence base for effective interventions;
- Consider how to improve collaborative working with partners and how to channel existing funds and secure national funding to effectively reduce the harmful impacts of air pollution within the County;
- Understand how to effectively engage and enable the public to reduce air pollution and the impact on their health;
- Complete a Health and Systems Impact Assessment on Air Quality and Health in Gloucestershire; and
- To identify Council policy areas which could contribute to air quality improvements, e.g. new housing development, transport, parking and energy.

1.3 Membership of the Task Group

Councillors Carole Allaway Martin, Matt Babbage, Rob Bird, Iain Dobie, Terry Hale, Jeremy Hilton (Chair), Keith Rippington and Rachel Smith.

1.4 Who did the Task Group speak to?

- Commissioning Director: Communities and Infrastructure
- Director of Public Health
- Lead Commissioner Community Infrastructure
- Consultant in Public Health
- Data and Analysis Manager (Place)
- Dr Adrian Davis BA, PHD, FFPH, Visiting Professor of Transport and Health, and Senior Fellow at the University of the West of England
- Key stakeholders from district councils, partner organisations, and local businesses.

1.5 The following report considers the evidence behind air pollution and its impact on public health in Gloucestershire, and sets out the findings and recommendations of the task group. A number of the task group's recommendations are focused on the establishment of a Gloucestershire Air Quality Monitoring Group, and a Gloucestershire Air Quality and Health Partnership, in addition to the development of a county-wide strategy to address air pollution and health in Gloucestershire.

2 BACKGROUND

Air Quality

- 2.1 As defined by the World Health Organisation, air quality is a measure of the degree to which the surrounding air in a given location is pollution free from any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere.
- 2.2 Air pollution is a combination of particles and gases that contribute to poor air quality, and can have adverse effects on health. Particulate matter (PM) and Nitrogen Dioxide (NO₂) are the most significant primary air pollutants within the UK.
- 2.3 PM consists of particles from combustion products, soot, part-burnt diesel and petrol compounds, rubber and other waste matter from road surfaces, and can be generated through construction and agricultural processes. PM₁₀ and PM_{2.5} are of most concern as these particles, due to their size, can be inhaled deep into the lungs. NO₂ is a gas which, as highlighted by a growing evidence base, has a significant impact on public health. One of the main sources of NO₂ is petrol and diesel road vehicles. Whilst NO₂ emissions have fallen by 69% and PM emissions by 73% since 1970, poor air quality continues to be an issue in areas across the country.

- 2.4 Air quality objectives for England determine the legal limits pollutant concentrations should not exceed in a given area. However, even exposure to air pollution measuring below the legal limits can still have an effect on health.

Impact of Pollutants on Public Health

- 2.5 Evidence has increasingly highlighted the significant impact of air pollution on public health. Even exposure over a short time period or to low levels of air pollution can impact on health. According to Public Health England, poor air quality is the largest environmental risk to public health in the UK. The Royal College of Physicians has also estimated that poor air quality is responsible for 40,000 premature deaths in the UK annually. In Gloucestershire, national modelled data suggests that exposure to PM is estimated to contribute to around 278 deaths a year (as referenced in Table 2, p.22 of Appendix A).
- 2.6 Exposure to air pollution can contribute to the development of cardiovascular disease, lung cancer, and respiratory diseases, and can limit an individual's quality of life. Those who may be at particular risk from the effects of poor air quality include older people, children, people with pre-existing lung and heart conditions, and people on lower incomes.

National Policy

- 2.7 In July 2017, the government published the 'UK plan for tackling roadside nitrogen dioxide concentrations', which sets out the government's ambition for a better environment and cleaner air.
- 2.8 As detailed in the publication, the government has committed over £2.7 billion to fund air quality and cleaner transport schemes, including:
- £1 billion to invest in ultra low emission vehicles (ULEVs);
 - £290 million to the National Productivity Fund for reducing transport emissions;
 - £11 million awarded through the Air Quality Grant scheme to help local authorities improve air quality; and
 - £1.2 billion identified through the Cycling and Walking Investment Strategy which may be invested in cycling and walking from 2016-2021.
- 2.9 The publication also sets out the requirement for local action plans to be developed to deliver the national plan, recognising the importance of action at the local level and highlighting the vital role of local authorities in addressing air pollution.

- 2.10 Additionally, the government published the 'Clean Growth Strategy – Leading the Way to a Low Carbon Future' in October 2017, and is expected to publish a further strategy on the pathway to zero emission transport for all road vehicles by March 2018. The government is also expected to release a wider Clean Air Strategy in 2018 setting out how the UK will meet its international commitments to significantly reduce emissions of five damaging air pollutants by 2020 and 2030.

Air Quality in Gloucestershire

- 2.11 The main sources of air pollution in Gloucestershire are transport and farming. Estimates suggest that levels of PM_{2.5} are highest in Cheltenham and Tewkesbury, where they exceed regional averages, whilst NO₂ levels are estimated to be at their highest in north Gloucester, Cheltenham and around Gloucestershire Airport. Evidence also indicates that deprived populations in Gloucestershire disproportionately bear the impact of air pollution, and levels of NO₂ are higher in areas in Gloucestershire where there are a higher proportion of children.
- 2.12 The legal obligation to monitor air pollution lies with the district councils in the County. If the legal limits for air pollutants are exceeded, the district councils have a responsibility to declare an air quality management area (AQMA). There are a number of AQMAs across the County, including:
- a town wide AQMA in Cheltenham;
 - at Painswick Road, Barton Street and Priory Road in Gloucester;
 - the town centre in Tewkesbury;
 - Lydney town centre in the Forest of Dean; and
 - at the Air Balloon roundabout in the Cotswolds.
- 2.13 The issue of poor air quality within Gloucestershire has also been highlighted by a recent High Court ruling in London on 21 February 2018. The ruling orders ministers to require local authorities to investigate and identify measures to tackle illegal levels of pollution in 33 towns and cities as soon as possible. Cheltenham is one of the areas affected by the ruling.

Action to Address Air Pollution within the County

- 2.14 A number of strategies have already been implemented within the County by Gloucestershire County Council to address the issue of poor air quality.
- 2.15 In particular, the 2016/17 Council budget included £50,000 to carry out an independent study of air quality outside schools. As part of the Air Quality Schools Pilot Project, the Council worked with district councils and schools

in Tewkesbury, Gloucester and Cheltenham to examine solutions to reduce pollution levels outside primary and secondary schools in AQMAs.

- 2.16 Other actions to tackle air pollution by the Council include investment into cycling and walking projects, subsidised transport projects, and reviewing specifications in transport contracts.

3 MULTI-STAKEHOLDER WORKSHOP ON AIR QUALITY AND HEALTH

- 3.1 In order to gain an understanding of the relationship between public health and air quality, to examine the evidence base on the issue, and to prioritise actions to take forward, the task group hosted a health and systems impact assessment stakeholder workshop on air quality and health in Gloucestershire.
- 3.2 The workshop took place on 16 January 2018 and was attended by 55 delegates representing a wide range of organisations, including Gloucestershire County Council, the district councils, GFirst LEP, NHS Gloucestershire Clinical Commissioning Group, South West Highways England, Public Health England, Gloucestershire Wildlife Trust, Stagecoach, and the University of Gloucestershire.
- 3.3 An evidence pack (Appendix A) was collated and shared with the task group and stakeholders prior to the workshop to inform discussions. Following a presentation by Dr Adrian Davis BA, PHD, FFPH, Visiting Professor of Transport and Health, and Senior Fellow at the University of the West of England, delegates were allocated to five discussion tables and were asked to consider the following questions:
- What are we doing in Gloucestershire that is making air quality worse?
 - What are we doing in Gloucestershire that is helping to improve air quality?
 - What changes should we make in Gloucestershire to improve air quality and reduce its impact on our health?
 - What are the challenges and barriers to making positive changes in Gloucestershire?
 - What are the top three changes you would prioritise for Gloucestershire to improve air quality and/ or reduce its impact on our health?
- 3.4 The outcomes from the workshop were collated into a report (Appendix B), which was presented to the task group to inform their findings.

4 FINDINGS

- 4.1 When considering its recommendations, the task group reflected on the outcomes and recommendations from the multi-stakeholder workshop, which provided the group with an understanding of the relationship between air quality and public health, and the actions that could be taken forward to address the issue of air quality in Gloucestershire.

Air Quality Monitoring

- 4.2 The task group understands that the evidence for air pollution levels in Gloucestershire is currently heavily based on modelled data. The monitoring of air quality is limited across the County, and only includes NO₂. The task group recognises the importance of improving air quality monitoring, in order to develop a comprehensive evidence base on air pollution levels. Considering that the strongest evidence base for the impact on the public's health is related to PM, it is particularly important that this is addressed in the approach to monitoring.
- 4.3 The collection of data through increased air quality monitoring will contribute to a better understanding of air quality issues within the County, including the identification of areas particularly affected by air pollution. The data can be used to develop effective strategies to address poor air quality and to measure the success of these strategies. The data can also be shared with the public to inform behaviour choices and action to address air pollution by communities and individuals.
- 4.4 The task group welcomes the recent investment by the Council into additional mesh pod air quality monitoring equipment, which can be used to measure gases and particulates, including PM_{2.5}, across three areas in Gloucestershire. However, the task group believes that, given the considerable risk posed to public health by air pollution, and in particular PM, further work needs to be carried out to improve monitoring across the County.

Recommendation 1: The task group recommends that a Gloucestershire Air Quality Monitoring Group, comprising of relevant officers from the district and county councils, be established by the end of September 2018 to:

- Evaluate how to improve air quality monitoring across Gloucestershire;
- Focus air quality monitoring on PM;

- **Review the deployment of air quality monitoring equipment across Gloucestershire to improve understanding of air pollution levels;**
- **Analyse the data collected across the County to develop objectives to address air pollution levels;**
- **Monitor the impact of interventions to improve air quality across the County; and to**
- **Consider how air quality monitoring information can be shared with the public.**

Leadership and Collaboration

- 4.5 The task group recognises that partnership working across both public and private sector organisations is crucial to drive forward strategies to improve air quality and to reduce the impact of air pollution on public health in Gloucestershire. Leadership to develop this collaboration is vital.
- 4.6 There are already good examples of collaborative working across Gloucestershire, such as the development of the Joint Core Strategy between Gloucester City Council, Cheltenham Borough Council, and Tewkesbury Borough Council. The multi-stakeholder workshop also highlights the enthusiasm across organisations to work collaboratively towards improving air quality and reducing the impact on public health within the County. Nevertheless, the task group feels that there is still too much ‘silo working’, with organisations and departments working independently to address the issues.
- 4.7 The group believes that there needs to be a partnership approach across organisations to address air quality in the County, which includes the development of a wider, unifying air quality strategy. The County Council should have a leading role in facilitating this partnership approach.

Recommendation 2: The task group recommends that a Gloucestershire Air Quality and Health Partnership, comprising of representatives from both public and private sector organisations, including the relevant Gloucestershire County Council Cabinet Member, be established by December 2018 to drive the development and delivery of the agenda for air quality and health in Gloucestershire.

Recommendation 3: The task group recommends that the terms of reference and membership for the Gloucestershire Air Quality and Health Partnership be presented for consideration at a meeting of the Environment and Communities Scrutiny Committee.

Recommendation 4: The task group recommends that the Gloucestershire Air Quality and Health Partnership develop a strategy to address air quality and health within Gloucestershire by June 2019.

Recommendation 5: The task group recommends that the Gloucestershire Air Quality and Health Partnership report into the Gloucestershire Health and Wellbeing Board on strategy development and implementation. Updates on progress should also be reported and scrutinised at both the Environment and Communities Scrutiny Committee and Health and Care Overview and Scrutiny Committee at the County Council.

Public Awareness and Engagement

- 4.8 Increased public awareness of air pollution and its impact on health is crucial in order to change the public mind-set towards the issue. The task group notes that, currently, the public is not fully aware of the impact of poor air quality on communities and the health of individuals.
- 4.9 Information on air quality needs to be made more accessible to the public, and should include data on air pollution levels across the County. This information will enable the public to make informed choices regarding their behaviour, such as their method of travel, and will help the public to develop actions to reduce air pollution and the impact it has on health.

Recommendation 6: The task group recommends that a website and information material be developed by the Gloucestershire Air Quality Monitoring Group to provide the public with information on air quality and its impact on health within Gloucestershire, including access to real-time air quality monitoring data in open data format, and actions members of the public and private sector can take to address the issue.

Planning and Transport Policies

- 4.10 The task group understands that current planning policies do not explicitly promote consideration of air quality in the development of new schemes. However, the group feels that this area is key to delivering improvements to air quality in Gloucestershire, by addressing the issues earlier rather than later in the planning process when it may become too difficult or expensive.
- 4.11 The task group recognises the opportunity to promote air quality objectives through Joint Core Strategy development plans, however believes there should be wider consideration of air quality in the development of other

planning policies. The consideration of air quality should also be included in the development of transport policies, such as the Gloucestershire Local Transport Plan.

- 4.12 The task group also understands the effects of traffic congestion on increased air pollution levels, which subsequently impacts on health. The task group believes that interventions should be developed to tackle congestion on the roads, which will improve air pollution levels across the County.

Recommendation 7: The task group recommends that the district and county councils in Gloucestershire take account of air quality when developing planning and transport policies, including consideration of the impact of additional traffic on air quality, and active travel into larger development proposals and highway schemes.

Recommendation 8: The task group recommends that greater recognition of the impact of transport on air quality and public health is included in the review of the Gloucestershire Local Transport Plan. This should include more ambitious targets set for trips made by sustainable and active travel.

Recommendation 9: The task group recommends that Gloucestershire County Council consider highways interventions to reduce congestion and pollution across Gloucestershire.

Electric Vehicles

- 4.13 The task group recognises the importance of investment into infrastructure to support the use of electric vehicles in the County, and welcomes the investment of £470,000 by the Council in its 2018-19 budget into an Electric Vehicle Charging Infrastructure Delivery Programme to include on-street charging points and the provision of Council electric vehicles. The task group feels that additional work should be undertaken to further explore the opportunities to promote the uptake of electric vehicles.

Recommendation 10: The task group recommends that a sub-group of the Gloucestershire Air Quality and Health Partnership be established to explore opportunities to promote uptake of electric vehicles for both business and private use, and to review options to incentivise electric vehicle uptake.

Active Travel

- 4.14 Active travel, such as walking and cycling, is a cleaner and healthier way for members of the public to travel. The task group identifies the promotion of active travel as an important intervention to improve air quality and reduce reliance on car use. The task group also recognises the benefits of active travel for other public health concerns, such as obesity.
- 4.15 Current measures to promote active travel within Gloucestershire include school active travel plans, the establishment of a Cycling Advisory Group by the Council, and the development of a Think Travel Coordinator role at the Council. Additionally, some infrastructure to support active travel already exists, however it is often fragmented and inadequate in terms of capacity and range. The task group therefore supports further improvements to promote and enable active travel in Gloucestershire.

Recommendation 11: The task group recommends that Gloucestershire County Council establish a programme of work to promote the uptake of active travel in Gloucestershire. This work should engage the public, local businesses, the district councils, other public sector organisations, and schools. This programme of work should also link with other public health schemes that are already focusing on behaviour change to improve activity levels, such as Gloucestershire Moves.

Public Transport and Public Sector Fleets

- 4.16 The task group recognises the role of public transport in contributing to a change in travel behaviour to reduce air pollution, and the significance of making public transport more accessible so that it can become a viable alternative to car travel. Members of the task group also support improvements to the public transport and taxi fleet in the County so that vehicles are more fuel efficient and emit less pollution.
- 4.17 Finally, the task group also feels that the vehicle fleets used by the Council, district councils, and NHS within Gloucestershire should be fuel efficient and less polluting. By reviewing its fleet and developing plans to reduce the emissions of its vehicles, the Council can lead by example and promote the adoption of cleaner vehicles to other organisations within Gloucestershire.

Recommendation 12: The task group recommends that a sub-group of the Gloucestershire Air Quality and Health Partnership be established to review:

- **Interventions to accelerate the uptake of cleaner vehicles for public transport and taxis, including the role of licensing policies and additional infrastructure requirements;**
- **The specification of transport contracts to better understand the effects of stricter emissions standards on areas of poor air quality, and any implications for accessibility;**
- **County Council, district council and NHS vehicle fleets, and develop plans to reduce the emissions of these fleets; and**
- **County Council, district council, and NHS contracting arrangements with providers to reduce emissions from external contractors' fleets.**

The sub-group is to make recommendations to the County Council, district councils and NHS in respect of its findings.