



## HEALTH AND WELLBEING BOARD 21<sup>st</sup> March 2019

# ITEM 09

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## Developing a Health and Wellbeing Board Air Quality Strategy

### Purpose

- 1.1 The purpose of this report is to provide an overview of the impact of air quality on health and potential role of a strategy and seek approval for the development of a draft Strategy by the Air Quality Working Group.

### Recommendation(s)

- 2.1 To approve the development of a Health and Wellbeing Board Air Quality Strategy through the Derbyshire Air Quality Working Group.

### Reason(s)

- 3.1 To support the Board in delivering against its responsibility to improve the health of the local population.

### Supporting information

#### ***The impact of air quality on health***

- 4.1 Air pollution is a mixture of particles and gases that can have an adverse effect on health. Air pollution has a significant effect on public health, and poor air quality is the largest environmental risk to public health in the UK. Costs to society are estimated at more than 20 billion pounds every year<sup>1</sup>. Epidemiological studies have shown that long-term exposure to air pollution (over several years) reduces life expectancy, mainly due to cardiovascular and respiratory causes and from lung cancer. The annual mortality burden of human-made air pollution in the Derby City is estimated to be equivalent to 131 deaths and 1425 life years lost<sup>2</sup>. Health can be affected both by

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<sup>1</sup> Royal College of Physicians (RCP). Every breath we take: the lifelong impact of air pollution. Report of a working party 2016 19/07/18. Available from: <https://www.rcplondon.ac.uk/file/2914/download?token=qjVXtDGo>.

<sup>2</sup> Committee on the Medical Effects of Air Pollutants (COMEAP). Long-term exposure to air pollution: effect on mortality (final report - June 2009) 2009 14/10/15. Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/304667/COMEAP\\_long\\_term\\_exposure\\_to\\_air\\_pollution.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/304667/COMEAP_long_term_exposure_to_air_pollution.pdf).

short-term, high-pollution episodes and by long term exposure to lower levels of pollution. Air pollution plays a role in a range of major health issues including cancer, asthma, stroke and heart disease, diabetes, and obesity. The impact of air pollution affects the whole population, however disproportionately affects the young, older people, those with underlying health conditions and the most disadvantaged within our communities.

- 4.2 Man-made sources of outdoor air pollutants include transport, household burning of solid fuels, and industrial activities. Highest levels are seen near the sources of pollution. Small particulate matter (PM) and nitrogen dioxides (No2) have the greatest epidemiological link to health outcomes, with traffic related and combustion heating sources being the most significant contributors. Evidence highlights adverse health effects from air pollutants are observed at lower exposure levels than those outlined within National air quality objectives and European Directive limit and target. Further action is needed to achieve air pollution levels below current objectives and in line with World Health Organisation recommendations.

### ***National Strategy***

- 4.3 The profile of air quality has increased nationally in recent years with a number of policy and strategies supporting change to improve air quality including most recently the National Air Quality Plan 2017, Clean Air Strategy 2018 and Road to Zero 2018.

### ***Air quality in Derby City***

- 4.4 Under the Environment Act 1995, local authorities in the UK are required to assess air quality within their administrative areas and report annually. When potential breaches of the Air Quality Standards (AQS) occur, an Air Quality Management Area (AQMA) is declared and an Air Quality Action Plan (AQAP) developed.
- 4.5 There are currently two AQMAs within the City, one covering the outer and inner rings roads and another around the A52 in Spondon. The Council has therefore produced an AQAP covering these areas, which includes a range of air quality improvement measures.
- 4.6 NO2 is the most widely measured air pollutant across Derby City. In recent years this monitoring data has been collated by the Chief Regulators Group and presented to the Health Protection Board (a sub group of the Health and Wellbeing Board) on an annual basis. Medium term analysis (7 year range) shows improvements in air quality at 12% of monitoring sites within AQMAs and 22% of sites outside of AQMAs. The data however is based on a small number of monitoring sites, and is likely to reflect increases in traffic seen on major road networks across the City.

### ***Derby City Clean Air Zone; EU Ambient Air Quality Directive***

- 4.7 In 2015 the Government launched the national air quality plan to ensure compliance with the EU Directive for nitrogen dioxide. As part of this plan a modelling exercise was undertaken on all the UK major road networks. The model indicated that Derby was one of nearly 30 local authorities outside London where levels of nitrogen dioxide from transport were likely to exceed the EU values in 2020, unless action was taken. Areas have as such been mandated to implement schemes to improve air quality, known as Clean Air Zones.

### ***Local Strategy***

- 4.8 Following a paper to the Health and Wellbeing Board in 2016, the Derbyshire County and City Joint Air Quality Working Group was established. The group aims to agree drive progress on air quality, receive assurance on progress, facilitate strategic relationships between stakeholders, and support action based on best available evidence. The group chaired by the Director of Public Health for Derby City, is formed of a range of stakeholders including Borough and District Environmental Health, Public Health, Highways, Planning, Sustainable Travel, voluntary sector, and health representatives, and acts as a sub group of the Health Protection Board.
- 4.9 Specific actions from partners have included:
- The production of air quality heat maps.
  - Initiatives to raise the profile of air quality including participation in Clean Air Day, Low Emission events, attendance at Sustainable Travel and Planning Groups.
  - Annual report to Health Protection Board of trends and issues related to Air quality locally.
  - Evidence review.
  - Development of supplementary planning guidance for local planners.

### ***Why develop an Air Quality Strategy?***

- 4.10 Even modest decreases in air pollution can lead to population impacts including increases in life expectancy and reductions in morbidity<sup>3</sup>. Similarly interventions to address air quality will likely deliver wider public health benefits, including increases in physical activity and support reductions in health inequalities.
- 4.11 The work of air quality management areas and the clean air zone project will be instrumental to improving air quality within specific areas of Derby City, and ensuring compliance with national air quality objectives and European directive limits, however evidence suggests health benefits can be achieved well below these thresholds. The cumulative effect of a range of interventions has been shown to have the greatest potential to reduce population level air quality and improve health. The partners of the Health and Wellbeing Board are therefore well positioned under a shared vision to work collaboratively to improve public health through the reduction of local air pollution, alongside existing strategies.

### ***Developing an Air Quality Strategy***

- 4.12 A growing evidence base exists which examines the most effective interventions to reduce air pollution at a local level, including NICE guidance and soon to be published evidence review by Public Health England. This provides a strong evidence base to inform the development of local Strategy.

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<sup>3</sup> Public Health England (2018) Health Matters Air Pollution

- 4.13 Interventions which seek to reduce sources of pollution and provide additional health benefits should be prioritised over interventions which seek to mitigate risk and reduce exposure.
- 4.14 Five core strategic aims are proposed:
- Working together; Build a stronger working relationship across Derbyshire, and will seek to support and influence national policy and strategy.
  - Lead by example; We will ensure our own practice reduces the impacts of local authorities and partners on Derbyshire's air quality
  - Support travel behaviour change; Work collaboratively to support modal shift amongst our workforce and wider population, through the promotion of active travel, investment in infrastructure and travel planning.
  - Reduce sources of air pollution; Work to implement measures to reduce sources of air pollution through air quality management areas, planning and urban design, and supporting infrastructure for low emission vehicles.
  - Mitigate against the impact of air pollution; Seek to reduce the impact of air pollution with particular reference to those who are vulnerable to its impacts including children, elderly and those with long term conditions.
- 4.15 Under each strategic aim it is suggested that strategic actions sit with identified lead partner agencies. It is suggested that the Air Quality working group (a sub group of the Health and Wellbeing Board) develop these strategic actions, with relevant key partners and present a draft strategy to the Board by no later than December 2019, for adoption in 2020.
- 4.16 A ten year strategy is recommended in order to support long term change, with annual measurable objectives within a supporting action plan. As evidence on the impact of air pollution on health is constantly advancing, it will be important to ensure the strategy is regularly reviewed in line with changes in evidence base and changing pollution levels locally. It is recommended that the strategy be monitored through the air quality working group, with annual progress reported to the Health and Wellbeing Board. Existing data from the network of air quality monitoring sites and modelled data will be utilised to support performance monitoring against measurable targets. The Strategy will seek to reflect national policy and integrate within local relevant policies and strategies.

## **Public/stakeholder engagement**

- 5.1 A range of engagement activity will be undertaken in the development of the strategy including workshop sessions with Derby and Derbyshire Health and Wellbeing Boards.

## **Other options**

- 6.1 None.

## **Financial and value for money issues**

7.1 None arising from this report.

## **Legal implications**

8.1 None arising from this report.

## **Other significant implications**

9.1 None arising from this report.

**This report has been approved by the following people:**

<b>Role</b>	<b>Name</b>	<b>Date of sign-off</b>
<b>Legal</b>		
<b>Finance</b>		
<b>Service Director(s)</b>		
<b>Report sponsor</b>	Cate Edwynn, Director of Public Health	
<b>Other(s)</b>	Robyn Dewis, Consultant in Public Health Medicine	