

HERTFORDSHIRE COUNTY COUNCIL

**HEALTH AND WELLBEING BOARD
THURSDAY, 4 JUNE 2015 AT 10.00 a.m.**

AIR QUALITY STRATEGIC PLAN

Report of the Director of Public Health, Jim McManus

Author: Gill Goodlad, AD Health Protection

Tel: 01438 845901

1.0 Purpose of report

- 1.1 To inform the Health and Wellbeing Board of the association between air pollution and premature deaths in Hertfordshire.
- 1.2 To describe the County-wide approach to enhance the air quality work of districts and boroughs, with the aim of reducing harm from air pollution.
- 1.3 To recommend actions that will deliver the strategic objectives for air quality.

2.0 Summary

- 2.1 Particulate matter (PM) is a group of pollutants in air that is linked with disease and premature deaths; however, there is not a recommended safe level of PM pollution and therefore very few monitoring sites.
- 2.2 Based on estimates, Hertfordshire's rate of premature death from PM air pollution appears worse than the national average; more monitoring data is needed to provide an accurate position.
- 2.3 PM air pollution is linked with heart disease, lung disease and some cancers. Protecting our most vulnerable residents from its harmful effects will require:
 - Assessment of air quality
 - Prevention/reduction of air pollution
 - Reduction of harm
 - Protection of residents using information and advice.

3.0 Recommendation

- 3.1 That the Health and Wellbeing Board approve the partnership approach and recommended actions for delivering the three strategic priorities to reduce the harm from air pollution: knowledge, prevention and harm reduction.
- 3.2 To provide feedback on the content of the draft Air Quality Strategic Plan for Hertfordshire (attached as Appendix A), including advice for widening the partnership to other networks, partners and programmes.

4.0 Background

- 4.1 The rate of premature deaths in Hertfordshire that are associated with particulate air pollution is a matter of concern within the Public Health domain of Health Protection.
- 4.2 A seminar was held in October 2014 to learn more about the problem and discuss the potential for a multi-organisational, county-wide plan to reduce harm. Elected Members and relevant officers from District councils, Hertfordshire County Council and Health were involved.
- 4.3 Air quality remains a responsibility of districts and boroughs; however, the seminar agreed that more could be done by working together across boundaries.
- 4.4 The attached report describes progress in the first six months and makes recommendations for the way forward.
- 4.5 Capital costs have been met by the Director of Public Health, through an enhancement to the District Offer for 2015/16.
- 4.6 Districts are able to include any revenue costs in subsequent years' District Offer

Report signed off by	Public Health & Localism Panel 19 th March 2015 Public Health Board 13 th May 2015
Sponsoring HWB Member	Director of Public Health
Hertfordshire HWB Strategy priorities supported by this report	Priority 6: Enhancing quality of life for people with long term conditions.
Needs assessment National reporting of Hertfordshire's position (Public Health Outcome Framework) was analysed locally for robustness of conclusions and found to be an estimate based on modelling from national data. Hertfordshire data was not available. The first priority is to establish a system for collecting, collating, analysing and reporting 'live' local particulate air pollution.	

Consultation/public involvement

- Air Quality seminar held 21st October 2014
- Consultation of draft air quality strategic plan to seminar invitees & attendees and identified partner organisations began March 2015:
List of organisations consulted on the Air Quality Strategic Plan
 HCC Property
 HCC Environment - Transport Planning Board/ Strategic Infrastructure Board
 Hertfordshire Infrastructure Planning Partnership
 Highways England (was Highways Agency)
 Hertfordshire Local Enterprise Partnership
 Met Office
 Building Research Establishment
 Herts Sustainability Forum
 Clinical Commissioning Groups
- Planned air quality ½ day workshop, 7th October 2015, to look at feasibility of low emission zones in Hertfordshire.

Equality and diversity implications

Whilst improvements in air quality will benefit all, the greatest benefit will be to those who are frail or have long-term health problems.

The air alert system (when introduced) will take account of protected characteristics and preferred methods of communication to enable the widest possible access. A full equality impact assessment will accompany this stage of the project.

Acronyms or terms used.

Initials	In full
HCC	Hertfordshire County Council
PM	Particulate matter. These are particles within the air that are invisible to the eye. The smaller the particles, the greater the potential harm to health, e.g. PM _{2.5µ} is more harmful than PM _{10µ} . Particulate matter is mostly associated with motor vehicles but can also arise from agriculture and construction.

APPENDIX A

Air Quality Strategic Plan for Hertfordshire

2015 – 2020

1 Executive Summary

Hertfordshire residents are dying prematurely due to local air pollution.

This county-wide air quality strategic plan identifies the importance of good quality air for those who live, visit and work in Hertfordshire. It describes the main types of air pollution in Hertfordshire, the causes of these and provides a focus for more effective collaborative working between the County and District Councils, and other relevant organisations such as the Local Enterprise Partnership and Highways Agency.

The primary aim of the air quality strategic plan is to protect public health from harm associated with air pollution, through adherence to regulatory frameworks for air quality, development of actions to mitigate poor air quality and access to public health advice about air pollution for vulnerable residents.

The adoption of this strategic plan is a key stage in the development of an Air Quality Action Plan for Hertfordshire, which complements District and Borough Air Quality Plans and Hertfordshire County Council's Local Transport Plan and Public Health Strategy.

i. Strategic Objectives

- To improve local knowledge of air quality through a 'network' of monitoring sites.
- To use evidence of effective actions to improve air quality, including evaluation of air quality plans from Local Authorities with 'beacon' status for air quality and Public Health England expertise, to inform action planning in Hertfordshire.
- To provide a county-wide Air Alert system for vulnerable residents which is based upon air quality data from as local a level as possible, and also includes appropriate advice regarding how to protect against the ill effects of air pollution.
- To ensure a partnership approach to improving air quality and reducing harm that involves local authorities, transport planners, highways engineers, Met Office, health and social care commissioners and relevant 3rd sector partnerships such as the Local Enterprise Partnership and the Herts Sustainability Forum.
- To evaluate and report on local interventions.
- To create the framework for a positive feedback loop that would constantly improve the monitoring strategies, targets and planned interventions.

ii. These will be achieved through:

- A new, multi-agency Air Quality working group that will develop a multi-agency action plan and report into existing structures with accountability for aspects contributing to air quality in Hertfordshire.
- Public Health Funding of additional air quality monitoring equipment for smaller particulate pollution (PM_{2.5}).
- Public Health funding of a multi-media Air Alert system for vulnerable residents and settings.

2 Introduction

i. Scope and limitations of the strategy

The Air Quality Strategy is a guiding document, intended to inform policy and direction across a range of councils' services and to co-ordinate efforts to improve air quality and prevent the harms from air pollution across the county of Hertfordshire.

A key role of this strategy is to enable more collaborative working between departments, agencies and other organisations, which have a common interest in maintaining or improving air quality. A number of the common strands within relevant legislation and strategies require an integrated approach.

Not all aspects of air pollution are addressed in this strategy. Air quality which is controlled under occupational health or civil contingencies legislation is excluded, as is the issue of indoor air quality in residential accommodation, and climate change, which could be the topic of future work. However, it is important to realise that actions taken in pursuance of improving local air quality will often also contribute to a lower carbon economy.

ii. The importance of air quality

Tackling air pollution is vital to improve the health and quality of life of people who live, work or visit Hertfordshire, especially those who are vulnerable, such as children with asthma and older people with heart and respiratory diseases.

See Section 4 for details of the health effects of air pollution.

The House of Commons Environmental Audit Committee published its report on air quality in the UK in December 2014, which included evidence that estimated air pollution could be contributing to as many as 50,000 deaths in the UK per year. Defra data estimated that 29,000 people died prematurely in the UK due to air pollution in 2008. These numbers were reached using statistical models based on scarce monitoring of particulate matter (PM), which mainly comes from diesel engine exhausts and biomass burning.

Particulate matter, especially the smaller PM_{2.5} particles are one of the best evidenced in terms of the health impact from long term exposure. This is reflected in Public Health England including premature death due to particulate air pollution in the Public Health Outcomes Framework (Outcome 3.01).

Estimates published by Public Health England suggest that 514 premature deaths in people aged over 25 years occur per year in Hertfordshire, which equates to 5258 life years lost due to PM_{2.5} alone.

iii. Clean air in Hertfordshire

The air quality in Hertfordshire is mostly very good with the majority of the county having clean, unpolluted air. There are, however, a number of locations where the combination of traffic, road layout, topography and geography result in pollutants that build up and are slow to disperse, causing concentrations that reach occasional, unacceptable levels.

The few locations where Hertfordshire may fail to meet national standards have to be investigated and sampled, in order to understand the true extent of the problem. If significant pollution is identified and is in an area where people live, the District or Borough council has to declare an Air Quality Management Area (AQMA) and put plans in place to improve the air quality. There are currently 29 such Areas across Hertfordshire, the majority have been declared because monitoring shows the sites do not meet the EU air quality objective for nitrogen dioxide. There is almost no local monitoring of PM_{2.5} particulate matter pollution.

For details of Air Quality Management Areas in Hertfordshire see section 5ii.

iv. Hertfordshire's Transport Systems & Air Pollution

The amount of traffic in Hertfordshire is high because of the county's location close to London. Hertfordshire has the sixth largest population of any highway authority and there are key strategic transport arteries running north to south across the county (e.g. A1M, A10, M1) and the M25 running east to west in the south of the county. This, combined with high levels of car ownership and use results in congestion hot spots.

Nitrogen dioxide (NO₂) is another air pollutant, caused largely by diesel engines. To date the Euro Standard 5, to which diesel vehicle manufacturers must adhere, has not succeeded in reducing these emissions.

Euro Standard 6 is the latest diesel emission legislation implemented by the European Commission; this means that from September 2015 all newly registered passenger cars will emit less NO₂, but it will take a number of years for the new cars to replace the older vehicles and for their real life performance to be assessed.

Buses, too, will eventually have engines to Euro 6 standard but this will not happen in the short term as they are expensive to replace for commercial bus companies. Some buses Hertfordshire have been replaced by cleaner buses using funding from the Governments 'Greener Bus Fund' and Clean Bus Technology Fund, but the majority are older buses with more polluting engines.

a. Improvements in technology

Sales of Ultra Low Emission Vehicles (ULEVs) including electric, hybrid and extended range electric and petrol and hydrogen fuel cell vehicles, are starting to increase. It is expected that new battery technology will increase the distance electric vehicles can travel without recharging which should increase the popularity of domestic electric vehicles which produce no emissions at source. Hydrogen Fuel Cell technology is expected to develop, particularly when 'green' energy can be produced on a larger scale. Water is the only waste material from Hydrogen Fuel Cell Vehicles (HFCVs).

b. Other transport measures

In addition to waiting for new vehicle technology to catch up, there are other transport measures that are being used to mitigate poor air quality in Hertfordshire:

- *Promote Sustainable Transport.* This means not only encouraging people to use cycles and walk, instead of using a car, for short journeys, but also encouraging public transport use and car sharing. A range of initiatives are underway, for example 'year of cycling' and 'year of walking' to promote travel behaviour change particularly for shorter journeys. A number of other sustainable transport schemes have also been implemented in the county as part of the 'Big Herts Big Ideas' project using Hertfordshire's successful bid to the Government's Local Sustainable Transport Fund (LSTF).
- *School Travel Plans.* There is already a travel planning service available on Herts Direct (**Appendix 1**) and the Transport Access & Safety Team and Highways teams offer advice e.g. Safer Routes to School schemes.
- *Business Travel Plans.* Local businesses are able to use the travel planning service on Herts Direct to reduce car use.
- *Design infrastructure to encourage more walking, cycling and use of passenger transport.* Policy and guidance documents, such as Hertfordshire's Active Travel Strategy (**Appendix 2**) and Roads in Herts Design Guide (**Appendix 3**) are used by planners when working with developers for the best outcomes. District Local Plans should reflect this guidance and incorporate the County's Local Transport Plan.
- *Consideration of air quality issues when deliberating new planning proposals.* Planning practice guidance 32 (6/3/14) on air quality provides guiding principles on how planning can take account of the impact of new development on air quality. For example the guidance states that local plans should consider the potential cumulative impact of a number of developments on air quality. The guidance also says 'when deciding whether air quality is relevant to a planning application, consideration could include whether the development would ... expose people to existing sources of air pollutants. This could be by building new homes, workplaces or other developments in places with poor air quality'. Mitigation measures include promoting transport modes with low impact on air quality and contributing funding to measures such as those identified in air quality action plans.

There is more we could explore, some examples below...

- *Low Emission Zones (LEZ) and Low Emission Neighbourhoods.* LEZ's are where access is limited in accordance to the vehicles' emissions. London has had some success with these, achieving a 15% reduction of particulate matter and nitrogen oxide in its first year of operation, although NO₂ levels are still too high in the whole area. A few

authorities in the country also enforce them for public buses. However implementation costs and the costs of “clean” buses are high.

- *Retro fitting of selective catalytic reduction to existing bus fleets.* Public road transport is dominated by heavy diesel vehicles with very high mileage punctuated with frequent stops and starts. It is responsible for a disproportionate amount of emissions, particular Nitrogen Dioxide. Transport for London’s Transport Action Plan states that buses account for 0.2% of London vehicles but are the source of 25% of NO₂ emissions. Retro fitting exhaust filters can be an effective and cheaper way to reduce emissions. The Transport Minister has attributed a 31% fall in particulate matter from vehicles since 1990 to diesel particulate filters being fitted to newer cars and the Government have provided an £89 million Green Bus Fund to assist Local Authorities in effecting this change for public transport.
- *Anti-Idling schemes.* These are being used by several London Boroughs (Hackney, Tower Hamlets & Islington) to reduce pollution from waiting delivery vehicles. Reading District Council has also been awarded funding by Defra to run anti idling campaigns outside schools.

3 The Regulatory Framework for Air Quality

i. International and national drivers for air quality, including EU Ruling (Dec 14)

In the UK, actions taken to improve air quality are driven by the objectives set out in the 2007 Air Quality Strategy and by EU standards for air quality which are set into English law through the Air Quality Standards Regulations (England) 2010

There have recently been 2 widely publicised court cases against the UK Government for failing to meet EU air pollution targets:

In November 2014 the European Court of Justice ruled that the UK Government should have prepared plans to achieve compliance with limit values for nitrogen dioxide by January 2015, further that UK national courts could order the Government to produce and air quality plan which achieves nitrogen dioxide limits in “as short a time as possible”. The UK Supreme Court is expected to make a final ruling in 2015.

In February 2014 the European Commission started proceedings against the UK Government for persistent air pollution problems. A judgement is not expected until 2018 at which point infraction fines could be imposed if the finding is against the UK.

ii. Background to air quality legislation in the UK

Legislation to address local air pollution has always focussed on reducing the effect on human health.

Legislation to address smoke emissions from burning solid fuels

The Clean Air Acts 1956 and 1968, consolidated by the Clean Air Act 1993, were targeted at regulating domestic sources for the first time and introduced ‘smoke control areas’ in an attempt to solve the smog events generated by the release of smoke from burning coal. A ‘smoke control area’ can be

declared by a local authority for any part of, or all of, its district and is an area within which it is an offence to emit smoke from a chimney, from a furnace or from any fixed boiler.

Legislation targeted specifically at industrial processes

Legislative controls on the emission of pollutants from industry originated in the mid 19th Century but struggled to keep up with the pace of the industrial revolution. The system of integrated pollution control was embodied in the 1996 European Environment Agency Integrated Pollution Policy Control Directive and was further consolidated by the Environmental Permitting Regulations 2010. These regulations control emissions to air from smaller installations and ensure integrated pollution control for the larger installations with greater pollution potential.

iii. More recent air quality related legislation

While the above legislative approaches have focused on the sources of air pollution emissions, such an approach in relation to controlling air pollution from road vehicles is less practical and enforceable for many reasons including, but not limited to, scale and social, cultural, political and technical issues. Therefore, the approach that has been taken is to set standards or targets for specific pollutants in ambient air, which are based on health effects while trying to take account of the cost and benefits in achieving them.

This legislation took the form of a statutory UK Air Quality Strategy first published in 1997 and last updated in 2000, which set targets for eight pollutants to be achieved by dates between 2003 and 2010. The UK Air Quality Strategy was established under Part IV of the Environment Act 1995 and was supported by a system of local air quality management (LAQM) to be implemented by local authorities and requiring them to review air quality within its area, both at the present time and the likely future air quality.

The Air Quality (England) Regulations 2000 (as amended) set the statutory basis for the targets known as air quality objectives (AQOs) and also required local authorities to designate an air quality management area (AQMA) where AQOs are not being achieved within the relevant period. It further specifies that once an AQMA has been specified the local authority must develop an Action Plan for that area with the aim of reducing air pollutants to a level below the AQOs. Due to traffic representing the main source of local air pollutants across the majority of the UK, out of necessity any Action Plan cannot operate in isolation from other regimes, whether they be planning, transport or public health.

The Environment Act 1995 requires all local authorities to review air quality within their area. If it appears that any air quality objective within the regulations and in the National Air Quality Strategy (which sets health based standards for SO₂, NO₂, O₃, CO, PM₁₀, Benzene, Butadiene and Polycyclic aromatic hydrocarbons (PAHs)) is not likely to be achieved, then the Local Authority must designate the affected areas as Air Quality Management Areas (AQMAs). The Act then requires that an Air Quality Action Plan (AQAP) be produced for any areas designated as AQMAs, setting out the actions that the Council intend to take to achieve the air quality objectives.

There are however no statutory obligations on Local Authorities in respect of

PM_{2.5}, the obligation is for PM₁₀, which is a misalignment with the Public Health Outcomes Framework indicator below.

4 The Contribution of Air Pollution to Ill Health

i. Public Health Outcomes Framework

The specific indicator (3.01) for air pollution within the Public Health Outcomes Framework relates to particulate matter and is as follows:
The fraction of annual all-cause mortality attributable to long-term exposure to current levels of anthropogenic particulate air pollution

ii. Understanding Public Health Outcomes Framework 3.01

The indicator uses an estimated amount of particulate matter (PM_{2.5}) based on local measurement. The most recent measurement came from monitoring of one site in Borehamwood (and a second site in Sandy Bedfordshire), which was correlated with increases in relative risks of premature deaths and local mortality data.

Chronic exposure to particulate matter contributes to the risk of developing cardiovascular and respiratory diseases, and there is increasing evidence suggesting that long-term exposure to even low levels of particulate matter may have a significant effect on health.

Fine particles (PM_{2.5}) can be carried deep into the lungs where they can cause inflammation and a worsening of heart and lung diseases.

Relative risks increase of mortality for each 10µg/m³

All cause mortality	6%
Cardiovascular (heart disease & stroke)	9%
Pulmonary (asthma & chronic obstructive airways disease)	9%
Lung Cancer	8%

Public Health England research (2014) linked 5.3% of all deaths in over-25s to air pollution. Using the Public Health England 2014 model 'estimating local mortality burdens associated with particulate air pollution', Hertfordshire has seen up to 514 premature deaths per year, in those aged over 25 years, attributable to anthropogenic PM_{2.5} air pollution. This equates to 5258 years of life lost.

iii. Non-particulate pollution

- nitrogen dioxide (NO₂)
- ozone (O₃)
- sulphur dioxide (SO₂)

In addition to particulate matter in the air, these three pollutants have known harmful effects on human health and the environment. The gases irritate the airways of the lungs, increasing the symptoms of those suffering from lung diseases.

5 Hertfordshire in Context

i. Outcomes of the Hertfordshire Air Quality Seminar held on 21st October 2014

A multi-agency seminar for Air Quality brought together a range of stakeholders with an interest in improving air quality in Hertfordshire to learn

about the latest information, how performance is calculated and to discuss the priorities for air quality in Hertfordshire. **(See Appendix 4)**

Priorities for Action

To develop a county-wide Air Quality Strategic Plan which will then form the basis of an action plan that is aligned to the following themes:

- Assessment of air quality
- Prevention of air pollution
- Reduction of harm
- Protection of residents

Using approaches to ensure that:

- Air quality is an integral part of planning processes
- Partnerships for air quality are extended to include Transport, Highways, Public Health and Local Authorities
- Activities understand and address the effect on children.

ii. Air Quality Monitoring in Hertfordshire

All Districts and Boroughs measure local air quality using passive diffusion tubes. However, these tubes only monitor background nitrogen dioxide levels that provide a general indicator of pollution levels averaged out over monthly periods. The table below lists the real time analysers that are in use across Hertfordshire and from this it can be seen that most local councils are unable to actively contribute to any detailed real time information regarding fine particulate matter, specifically PM_{2.5}, across Hertfordshire.

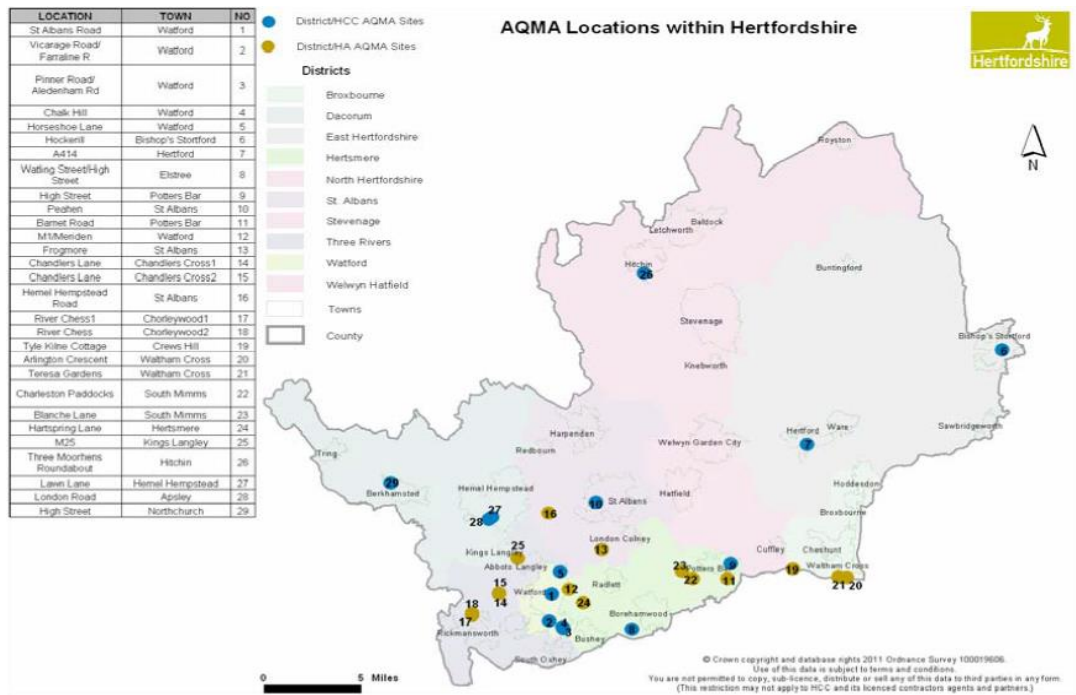
Council	Real Time Analysers operational at December 2014			
	NO ₂	PM ₁₀	PM ₁₀ & PM _{2.5}	O ₃
<i>East Hertfordshire District</i>	2	2	0	1
<i>Hertsmere Borough</i>	2	0	2	0
<i>North Hertfordshire District</i>	2	1	0	0
<i>Watford Borough</i>	1	1	0	0
<i>Dacorum Borough</i>	1	0	0	0
<i>St Albans City District</i>	0	0	0	0
<i>Broxbourne Borough</i>	0	0	0	0
<i>Welwyn Hatfield District</i>	0	0	0	0
<i>Stevenage Borough</i>	0	0	0	0
<i>Three Rivers District</i>	0	0	0	0

iii. Air quality monitoring carried out by Defra

Defra assesses air quality in the UK through a combination of monitoring and modelling. Defra support a network of 273 monitoring sites in the UK which measure concentrations of 13 pollutants for the purposes of statutory reporting and national assessment. Modelling is used to report levels of pollutants where monitoring does not take place, as in the case of Hertfordshire where Defra has no monitors sited.

iv. Air Quality Management Areas (AQMA's) in Hertfordshire

The map below is taken from HCC's Active Travel Strategy:



In all AQMA's Districts are striving to ensure there is no deterioration of air quality and that positive steps towards lower pollution levels are taken through the implementation of air quality action plans.

v. Links to Transport Infrastructure Planning

Hertfordshire's Local Transport Plan 3 (LTP3) promotes the increased implementation of sustainable transport interventions that will change travel behaviour, with associated benefits in terms of congestion, carbon emissions, physical activity and air quality.

The LTP3 is supported by a range of daughter documents which provide strategies for specific areas of Transport in Hertfordshire. One example is the Active Travel Strategy (**see Appendix 2 for full details**).

The Active Travel Strategy sets out 4 policy objectives, several aspects of which are relevant to air quality:

Policy Objective 1: To ensure Active Travel contributes fully to **addressing environmental challenges** in Hertfordshire. Specific challenges that need to be addressed by this strategy are as follows:

- Improving air quality by reducing nitrous oxide emissions from the transport sector, particularly in the locations that are currently designated Air Quality Management Areas.
- Reducing the growth in carbon emissions from the transport sector by increasing the proportion of trips taken by walking and cycling.
- Improving the natural and built environment in Hertfordshire.

Policy Objective 2: To ensure Active Travel contributes fully to **enhancing economic growth** in Hertfordshire. Specific challenges that need to be addressed by this strategy are as follows:

- Reducing economic costs associated with transport, through **reducing congestion**, and increasing productivity.
- Reducing the economic costs associated with lack of exercise, including employee absenteeism and NHS costs.
- Improving accessibility to the labour market and reducing unemployment through **increased availability of alternative transport options**.
- Improving the desirability of facilities and services through **enhanced transport facilities and pedestrian environments**.

Policy Objective 3: To ensure Active Travel contributes fully to **improving public health** in Hertfordshire. Specific challenges that need to be addressed by this strategy are as follows:

- Increasing physical activity levels (and associated reduction in private car usage) to help prevent and manage a number of health conditions including: obesity, heart disease, cancer, diabetes, poor mental health, asthma and other illness.
- Levels of road casualties should not increase.

Policy Objective 4: To ensure Active Travel contributes fully to **improving quality of life** for Hertfordshire communities. Specific challenges that need to be addressed by this strategy are as follows:

- To increase levels of community cohesion through active travel.
- To improve community safety.
- To improve equality of opportunity for Hertfordshire residents.
- To improve **physical access to education by active travel**.

The Active Travel Strategy concludes:

- That measures need to be focussed in areas of greatest need, such as the areas surrounding AQMA's where reducing car journeys would improve emissions.
- That Active Travel should contribute to improved Air Quality wherever possible.

It does not however pick up on the Public Health Outcomes Framework outcome for deaths associated with PM_{2.5} pollution. The current strategic

review of the Local Transport Plan and associated daughter documents provides an opportunity for this to happen.

6 Strategic Objectives

i. Assessment of air quality

Each district and borough will be provided with the opportunity to purchase accredited equipment to enhance or enable each authority's ability to measure PM_{2.5}. In addition to better informing local authorities of their local PM_{2.5} levels, this form of monitoring will mean that Hertfordshire is well placed to meet the expectations in relation to understanding PM_{2.5} levels that is to be placed on them by the new Local Air Quality Management regime which is currently being consulted on by Defra. The results will also be provided to Beds & Herts Air Quality Network for reporting purposes, and will inform a proposed air alert system.

ii. Prevention of air pollution

Prevention is mostly an issue for Transport and Planning functions. The AQMA's demonstrate that the risk of air pollution is not evenly spread throughout the County and is often associated with major roads. In addition to the range of District and County plans that address the causes of air pollution, we will consider evidence from other areas of what works to improve air quality and the feasibility of implementing similar proposals in Hertfordshire.

iii. Reduction of harm from air pollution

The recent (Dec 2014) report of the House of Commons Environmental Audit Committee suggests there is potential for new enterprises that accommodate vulnerable groups, such as schools and care homes, to be situated outside areas of highest potential pollution, for example within specified distances of major or congested roads. Their recommendations are currently under consideration by the UK Government.

iv. Protection of residents

Air quality is currently included in the Daily Hazard Alert from the Met Office. The need for a new air alert system will be evaluated, which will use a range of media for both proactive and reactive reports and advice to residents who are vulnerable to the effects of air pollution.

Proactive alerts will enable residents to sign-up to receipt of air alerts via a choice of media to include text messaging and automated telephone SMS service.

Reactive alerts will ensure that the latest air quality hazard areas are available to all residents via HertsDirect. The availability of this information will be widely publicised, for example in Horizon magazine.

7 Partnership Approach

i. Essential Partners

Due to the complexity of factors that contribute to air quality and the spread of expertise and responsibilities for air quality both across and within organisations, it is essential that the following are engaged with the action planning and implementation processes:

- Local Authorities
- Transport
- Public Health

- Children's Services
- Highways Agency
- Met Office
- 3rd Sector organisations
- Health and social care commissioners
- External specialists in air quality

Full membership will be recorded in the Terms of Reference of the Hertfordshire Air Quality Planning Group.

ii. Accountability to Health and Wellbeing Board

The Air Quality Planning Group will be accountable to the Health and Wellbeing Board, through reporting lines to the Environmental Health Public Health Group and Environmental Health Managers Group, with additional reporting to the Health Protection Committee and Public Health Board. Updates of the air quality Public Health Outcome will be an integral part of regular health protection reporting to the Public Health and Localism Panel.

8 Conclusions and recommendations

Air quality is a complex topic with many contributory factors, many of which are outside Local Authority control. Air quality is subject to a range of EU and UK legislation and guidance. Although generally overseen by Defra, air quality objectives have been extended to involve public health departments where there are excess deaths associated with pollution by particulate matter.

The smaller particulate matter, PM_{2.5}, had not been routinely monitored because there was no previous standard for PM_{2.5} pollution. There remains no standard for safe levels of PM_{2.5}, but modelling from the few monitoring sites is used to estimate an associated mortality rate.

Air quality monitoring and Air Quality Management Areas continue to be the responsibility of District and Borough councils, with some wider aspects of transport and planning sitting with the County Council.

There are three strategic priorities that can be addressed through strengthened partnerships. They are knowledge, prevention and harm reduction. It is recommended that these priorities be addressed through the development of an agreed, multi-faceted action plan which will include:

- Increased air quality monitoring in Hertfordshire, including provision of monitoring equipment for PM_{2.5}.
- Air quality data uploaded to Beds & Herts Air Quality Network for reporting purposes.
- Learning about effective interventions from other areas.
- Air quality education; for schools, decision makers and people at greater risk of harm from pollution.
- Recommendations regarding a multi-media air alert system (**Appendix 5**), which includes health advice (**Appendix 6**), for individuals and communities at increased risk.
- Public Health communications.

APPENDICES

Appendix 1 – Link to School Travel Advice on Herts Direct

<http://www.hertsdirect.org/services/transtreets/schtravel/>

Appendix 2 – Hertfordshire Active Travel Strategy

<http://www.hertsdirect.org/services/transtreets/ltplive/supporting/active/>

Appendix 3 – Roads in Herts Design Guide

<http://www.hertsdirect.org/services/transtreets/devmanagment/roadsinherts/>

Appendix 4 - Summary Report Hertfordshire Air Quality Seminar



Air Quality Seminar
Summary Report.doc

Appendix 5 – Links to AirText and AirAlert service information

<http://www.airtext.info/>

<http://www.airalert.info/Splash.aspx>

Appendix 6 – Current Air Quality Health Advice (Taken from Daily Air Quality Index, Defra website)



Daily Air Quality
Index - Defra, UK.mh