

TITLE	Effect of Pollution on Public Health and Wellbeing in Wokingham Borough
FOR CONSIDERATION BY	Health Overview and Scrutiny Committee on 19 January 2015
WARD	None Specific



**WOKINGHAM
BOROUGH COUNCIL**

OVERVIEW AND SCRUTINY – WORK PROGRAMME SUGGESTION FORM

I would like to suggest a Scrutiny or Policy Review item for the Overview and Scrutiny Management Committee's next work programme.

Name Keith Malvern

I would like to suggest that the following matter is reviewed:

The effect of pollution on public health and wellbeing in Wokingham Borough.

Public Health England recently reported recently (10th April) on local mortality associated with particulate air pollution. In the case of the Wokingham Unitary Authority area it gives a figure of 5.7% as the percentage of deaths attributable to long term exposure to pollution.

Do these figures match any local data? And if they do what can be done to reduce the level of pollution, particularly that caused by motor vehicles?

Reasons for suggestion:

The Council has underpinning principles of :

Improving Health, Wellbeing and quality of life

Tackling traffic congestion in specific areas of the Borough is a priority

As far as I am aware this report from Public Health England provides new information and this review could provide the baseline for future (yearly?) reviews of mortality data and the levels of particulate pollution.

If this led to reduced levels of pollution this could lead to a healthier environment in the Borough

Please consider:

- Why should there be a review on this?
- Any linkages with the Council's Vision, Priorities and Underpinning Principles – you can find these at <http://www.wokingham.gov.uk/council/decisions/vision/>
- What benefits would there be to residents?

Are there any specific aspects of the issue you would like scrutiny to focus upon or supporting evidence?

As much of the pollution could be laid at the door of traffic and as this information may be easier to establish I would suggest that traffic counts and pollution levels should be analysed on the major routes in the Borough. This also needs to be seen over time – how has traffic increased and have more modern engines had an impact on pollution. Also projections should be made of

Please consider:

- What evidence is there to support the above reasons?
- What are the facts?
- Are there specific organisations or documents you would like a review to refer?
- Do you have any suggestions for potential witnesses?

how future traffic will change as a result of an ageing population and any other demographic changes that could have an effect on modal shift

For a while the Council has emphasised the importance of development within sustainable locations as a way of reducing traffic. Has that policy been effective?

Additionally travel plans have been requested from some developments – have these been monitored to see if they have been effective? The issue of travel plans could be applied to the Borough Council itself if it has not already been done and that could show how this policy has been effective in a large organisation.

What would you like to see coming out of the review in terms of desired outcomes?

As a result of the review I would like to see a clear statement of how the Council views the report from Public Health England.

To analyse as far as possible figures for traffic and pollution and how they relate. To provide targets for future traffic levels and pollution levels.

Agree when this issue should be looked at again

Please consider:

- What would you wish to see happen as a result of any review?
- Why do you think the desired outcome is achievable?

Would you like to attend the Overview and Scrutiny Management Committee to make a short statement in support of your request?

Yes – if possible.

No

I am (Please tick appropriate box)

- ☐ A Member or Officer of Wokingham Borough Council
- ☐ A group with an interest in the Wokingham Borough Council area
- ☐ A local business situated in the Wokingham Borough Council area
- ✓ A resident of the Wokingham Borough Council area

Please return this form to:

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In response to the question surrounding the effect of pollution on health and wellbeing of Wokingham, taking into consideration the report published by Public Health England in April 2014.

Question posed - *'As a result of the review I would like to see a clear statement of how the Council views the report from Public Health England'*

Summary

The report from Public Health England (PHE), *'Estimating Local Mortality Burdens associated with Particulate Air Pollution'* published in April 2014, demonstrates that long term exposure to particulate air pollution contributes to deaths from respiratory and cardiovascular causes; however these are not exclusively attributable to air particulate levels, there are a combination of other risk factors that will also have an effect on mortality.

The report highlights that Wokingham has an attributable fraction (proportion of local deaths attributable to long-term exposure to anthropogenic particulate (arising from human activities) air pollution) of 5.7%.

In comparison England has an attributable fraction (AT) of 5.6%, the region of South East England has an AT of 5.5%, and the London Borough of Westminster has an AT of 8.3%.

For more local comparison, Bracknell has an AT of 5.6%, Reading has an AT of 5.9%, Slough has an AT of 6.8%, Windsor and Maidenhead has an AT of 5.9% and West Berkshire has an AT of 5.5%.

It must be stated that comparisons between areas are not good predictors of good or poor practice. This is because the amount of anthropogenic fine particulate matter is dependent on the characteristics of each area, such as the amount of rural and urban areas in a Borough and the numbers of people living in each condition. The contributions of pollution from other sources that are local to each area also influence the concentrations of anthropogenic fine particulate matter. Despite the fact that all the measures displayed in the report have a number of uncertainties surrounding them, this demonstrates that there is improvement to be made to reduce this number, which in turn should have a knock on effect on multiple other areas of health such as physical activity levels and perceptions of wellbeing. The Council is already aware of the air quality within the Borough and where improvements need to be made, a number of steps have been taken and with Public Health now having a measure added to their Public Health Outcomes Framework (PHOF) addressing mortality attributable to particulate air pollution, the Council takes very seriously the report by Public Health England.

Measures used

There are three measures used in the report all of which are estimations, these calculations are based on the results of a study by Pope et al. 2002, which produced a concentration-response coefficient for use in quantifying the mortality effect of long-term exposure to particulate air pollution. The figure produced was a relative

risk (RR) of 1.06 for all-cause mortality per $10\mu\text{g}/\text{m}^3$. The study by Pope et al. was conducted in the US and so the application to the UK could give unreliable results, there could also be differences between the situation and conditions of the study by Pope et al., adding uncertainty. It must also be stated that within the local measures there will be variability when considering individual levels of exposure. Some areas will have higher levels of anthropogenic particulate air pollution and other will have lower levels, it can depend on where an individual lives and their lifestyle choices (e.g. do they commute regularly on a traffic heavy road). The local mortality burden estimates in the report will be insensitive to the local condition and projects that aim to have an effect on traffic emissions, therefore local schemes such as the Sustainable transport fund projects that are running along the A329 corridor will most likely be excluded from the data presented in the report. There are also uncertainties when looking at the variability in small data sets with variations of local annual numbers of deaths being typically larger than those in the national statistics.

Despite all of these uncertainties the measures are likely to be reasonable and can be used as representing the increased risk to the local population as a whole, associated with current levels of air pollution.

Local

Within the 2014 Air Quality Progress Report for Wokingham Borough Council it states that Wokingham Borough has a number of Air Quality Management Areas (AQMA) this can partly be attributed to the location of the Borough. The M4 transects the Borough from East to West and the A329(M)/A3290 runs from the border with Reading to Bracknell, and the M4 and the sheer number of road traffic users have been identified as a large contributor to air pollution. These AQMA are measurements of Nitrogen Dioxide (NO_2) and not particulates, which are measured in the PHE report, and so cannot be compared with the results of the PHE report.

The Wokingham Borough Council report highlights that in 2013 the annual mean objective of $40\mu\text{g}/\text{m}^3$ was exceeded within the AQMA in 2013. These were Lane End Villas, Shinfield and Mill Lane, Sindlesham both with $48\mu\text{g}/\text{m}^3$, a detailed explanation of these results is given in the report. There was also 7 areas of concern outside of the AQMA in Church Road ($42\mu\text{g}/\text{m}^3$), Bath Road ($41\mu\text{g}/\text{m}^3$), Shute End ($57\mu\text{g}/\text{m}^3$), Peach Street ($44\mu\text{g}/\text{m}^3$), Wiltshire Road ($50\mu\text{g}/\text{m}^3$), High Street ($57\mu\text{g}/\text{m}^3$) and Rectory Road ($52\mu\text{g}/\text{m}^3$).

The Wokingham Borough Council report does give a more localised view of the problem and so should be read in conjunction with the PHE report to give a clearer picture of the air quality within Wokingham.

Wider Influences

The report highlights the importance of air quality; it also highlights the wider health gains to be achieved from tackling air quality. It is Wokingham Public Health's ambition to make Wokingham a healthier borough through increasing physical activity, mental wellbeing and encouraging people to take control of their own health, this is all stated in the JSNA, Health and Wellbeing strategy and the forthcoming Maximising Independence strategy. All of these will have a knock on effect on air

quality and reducing air quality will also have a knock-on effect on them. It is a two way relationship that continues to be at the front of both the local and national agenda.

References

Public Health England. (2014). *Estimating Local Mortality Burdens associated with particulate Air Pollution*. London: PHE

Wokingham Borough Council. (2014) *2014 Air Quality Progress Report for Wokingham Borough Council*. Wokingham