Air Quality

"Air pollution is the biggest environmental threat to health in the UK, with between 28,000 and 36,000 deaths a year attributed to long-term exposure. There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and exacerbates asthma."

PHE (2019) Air Pollution Evidence Review[1]

Evidence and Data

Deaths and illness caused or exacerbated by poor air quality are linked most closely to exposure to small particulate matter (PM) of less than 10 or 2.5 microns in diameter (PM_{10} and $PM_{2.5}$). These tiny particulates comprise a mixture of health-harming substances. Cyclists are the least exposed to air pollution on a daily route into a congested city. People in cars or buses spend the longest in toxic airs.[2]

A recent study by Kings College London found roadside air pollution in Oxford stunts lung growth in children by 14.1%, whilst living near a busy road in Oxford increases risk of hospitalisation for stroke by 7.4%[3]. People exposed to particulates over time develop significant life-limiting health problems, as well as triggering further underlying health problems, making them worse, and in some cases causing death.

Transport is also the most significant source of nitrogen dioxide (NOx) in Oxfordshire, accounting for 75% of emissions. Whilst national policy already places walking and cycling at the top of the transport hierarchy, in practice transport planning can often give priority to motor vehicles. This is despite evidence showing the major contribution of traffic (and slow, static traffic, for example rush hour traffic queues), to air pollution.

Tackling air pollution requires the input of many different partners and will mean a change in behaviour by all of us. It will require significant investment in walking and cycling infrastructure and other alternatives that make it easy for residents to make different and healthier travel choices, and for children to more easily avoid pollution in their everyday lives.

Lowering air pollution is directly linked to getting more people out of their cars and into different forms of transport for more journeys. Whilst electric cars may help with improving air quality, they do not provide the benefits of public transport or active travel; such as lowering congestion, improving road safety, increasing public health.

What can we do about it?

Transport is the main source of air pollution in Oxfordshire; transport policy has a clear role to play in setting a direction to tackle the issue, and then enabling action to make a difference. Working with partners and stakeholders, the County Council is already reducing the air quality impacts of transport in Oxfordshire through specific actions and projects which have reducing air quality problems at their heart. These include:

- The ‘Connecting Oxford’ project, which sets out to tackle congestion and air quality by proposing the introduction of new traffic restrictions and bus gates, and a workplace parking levy.
- Working with Oxford City Council in taking forward the UK’s first Zero Emission Zone supporting air quality improvements in the City.

- Planning investment in walking and cycling, through developing Local Cycling and Walking Infrastructure plans, initially for Oxford, Bicester and Didcot before extending to other areas, and working with partners to develop Greenways for cyclists and other users.
- Supporting and accelerating the move to electric and low emission vehicles, including buses where operators have pledged to invest in only ultra-low or zero emissions vehicles from 2025.
- Working with district councils and other stakeholders to develop and implement Air Quality Action Plans for the County's Air Quality Management Areas.
- Piloting smart technology to better understand air pollution, reduce emissions and empower people to reduce personal exposure.
- Providing better information to help people take action now, such as public health information, and anti-idling campaigns in some districts across Oxfordshire.
- Roll out the NEVFMA (Network Emissions/Vehicle Flow Management Adjustment) project in Oxford, which will allow air pollution data to guide dynamic adjustments to traffic flows and reduce emissions[4].
- The School Streets project, which aims to restrict roads outside schools at the start and end of the day, reducing air pollution and making it easier and safer for children to walk, cycle or scoot to school.

There is much more that needs to be done however, to bring air pollution down to safe levels, and the County Council will therefore continue to need to work with partners in development of new initiatives to help tackle these issues. [5].

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[1] PHE (2019) Air Pollution Evidence Review: https://www.gov.uk/government/news/public-health-england-publishes-air-pollution-evidence-review

[2] Source: Exposure to traffic-related air pollutants & NO2 when commuting by modes (University of Leeds, 2018).

[3] http://www.erg.kcl.ac.uk/Research/home/projects/personalised-health-impacts.html

[4] https://www.transportxtra.com/publications/local-transport-today/news/62231/developing-digital-roads-and-improving-air-quality/

[5] This Clean Air Fund Toolkit about how to communicate AQ and health issues is great: https://www.cleanairfund.org/assets/documents/CFA_toolkit_UK.pdf

Question 13

Air Quality - What do you think?

What more could you do about air pollution where you live or work? In what ways could we get the message across more strongly, when pollution is an invisible issue and easily ignored?

To respond please use the online consultation form.