

Winchester: Thinking Ahead factsheet 12

Air pollution

Winchester has a major pollution problem in its centre which the council has declared an Air Quality Management Area. On calm clear mornings the extent of the pollution is visible from Morestead Road.



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Almost all of this pollution is the result of vehicle emissions, especially from diesel vehicles. In their February 2016 report *Every Breath We Take* the Royal College of Physicians identified these emissions as the major cause of at least 40,000 premature deaths per year in the United Kingdom from asthma, other breathing problems, heart problems, and cancer; far more deaths than from other causes of concern other than smoking:

<i>Cause of premature death in UK 2014</i>	<i>Low Estimate</i>	<i>High Estimate</i>
Illegal Drugs	2,248	2,248
Alcohol	5,000	8,000
Pollution (mostly vehicle emissions)	40,000	50,000

Early deaths in and around Winchester Town will be at least (roughly) one thousandth the national total. However, the high levels of pollution in Winchester town centre are likely to increase this to over 50 deaths a year from traffic emissions.

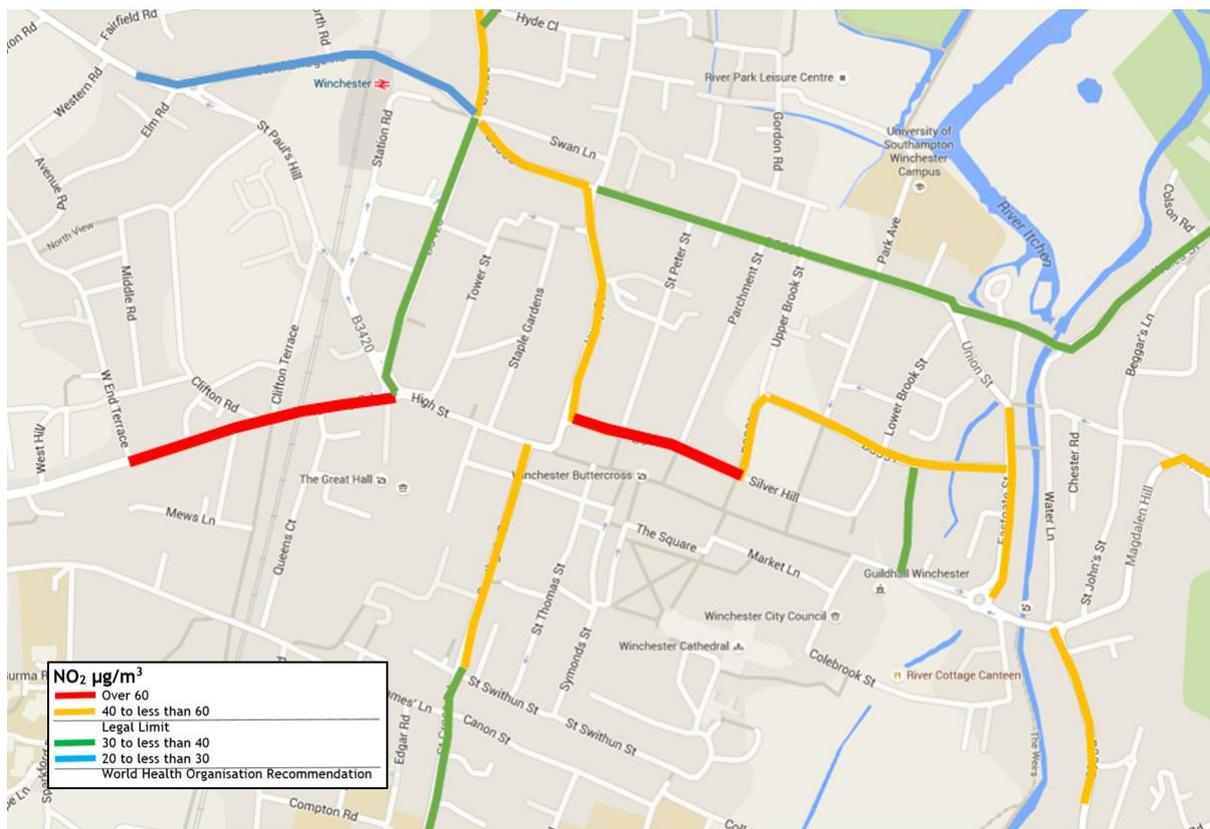
High levels of particulates in traffic pollution are also associated with low birth weight, delayed brain development, and reductions in IQ.

Concern is about a number of substances, especially particulate matter (or soot). Monitoring concentrates on nitrogen dioxide (NO₂) emissions because it is relatively easy to measure, so it is used as an indicator of a range of harmful substances.

There is a legal limit for NO₂ emissions of 40µg/m³.and the World Health Organisation recommends a 20µg/m³ limit. Annual average NO₂ concentration in central Winchester is persistently around 50µg/m³, 25% above the legal limit.

All the sites where the maximum was exceeded were either on the central circulatory system or on the approaches to it.

In 2014 monitoring identified 14 places where the legal maximum average pollution level was exceeded, often by a considerable margin, and in many places pollution was on the increase. The map below shows the emissions reported for 2014. There were no reports for High Street or Union Street. Red and orange are above legal limits, green and blue above WHO recommendations.



Compared with central Southampton Winchester is far more acutely polluted. In Southampton a similar map shows central streets as mostly blue and green. The route along the sea front is orange, and turns to red only as it leaves the centre. Winchester has the highest levels of pollution right in the centre.

Conclusion

Winchester town's air quality problems will not go away without action.

Nitrogen dioxide is emitted in the highest concentrations by diesel vehicles. Cars, especially diesel cars, contribute a high proportion. The City Council's study showed that buses have comparatively small impact, and this will decrease even more now the operators are changing to new Euro-6 buses.

A reduction in vehicle mileage in Winchester town centre is essential. A City Council working party is considering options.

Phil Gagg 18 July 2016