



Rob White (centre), Green Councillor, Reading Borough Council

POLLUTED CITIES



READING

Reading, like many towns and cities across the South East of England, is blighted by Britain's toxic air crisis. Here we look at the latest available air quality data and set out recommendations on how to clean up our air in our town.

AIR QUALITY LIMITS

Local authorities that experience poor air quality must designate air quality management areas (AQMA) and are mandated to collect and report on pollution levels.¹ Legal limits of exposure have been set by the EU (informed by the World Health Organization (WHO)). For Nitrogen Dioxide (NO₂) – which inflames the lining of the lungs and makes them more susceptible to illnesses such as bronchitis, and in the UK, is linked to the premature deaths of more than 20,000 people every year² – there are both hourly average targets and annual average targets. Within any given year, a local authority has exceeded the hourly average limit if levels of pollutants go above 200µg/m³ more than 18 times for an hour or longer over the course of the year. And if the annual average is higher than 40µg/m³ at any monitoring station, it has broken the safe, legal limit.

Reading is a major commercial centre and the Borough has a population of over 162,000. Despite its proximity to London, Reading has a net inward commuter flow, with more than 42,000 people commuting into the town daily.³

Reading is heavily built up, and at peak times congestion is a big issue. There is currently one large air quality management area (AQMA) in Reading covering all the major arterial roads in and out of the town as well as the central area.⁴

The main air quality issue identified in Reading is vehicle emissions. NO₂ is the only pollutant in the town which is exceeding EU legal limits. But particulate matter pollution (PM₁₀ and PM_{2.5}) is also an issue due to its negative health impacts. Despite not exceeding the current legal limits set in Reading, two of Reading's four sites monitoring PM₁₀ were at the WHO recommended maximum limit of 20µg/m³ and a further site was at 19µg/m³. It is clear that even low levels of PM are damaging. Indeed, some 62 deaths of the over 25s in the town are attributed to PM_{2.5} pollution every year, and over 700 associated life years lost in Reading.⁵

The latest available data from Reading Borough Council reports that NO₂ was monitored at 56 sites in 2016. Nineteen sites (or 34%) exceed the annual legal limits of 40µg/m³. An additional 16 sites registered 'borderline exceedances' of over 36µg/m³. But considering just the annual mean doesn't tell the whole story. Of the areas that, on average, didn't breach annual legal limits in 2016, residents in 35 (or 62%) experienced at least one month of illegally toxic emissions. To take one site as an example, Reading Station was technically within safe, legal limits, but it was over the limit for 10 months of the year – for half of these the levels were over 50µg/m³.

THE AREAS OF READING EXPERIENCING THE WORST AIR POLLUTION

Site	Annual mean (NO ₂ µg/m ³)	Over safe/legal limit	Highest monthly recording (NO ₂ µg/m ³)	Over safe/legal limit
Friar Street	50.1	125%	63.5	159%
Prospect Street	47.8	119%	68.2*	171%
Oxford Road	46.1	115%	58.3	146%

**This was the highest monthly level recorded at any site in Reading.*



KEITH TAYLOR, GREEN PARTY MEP FOR THE SOUTH EAST

“ It is very worrying that air pollution at various locations across Reading, including Cemetery Junction, continues to exceed EU legal limits. Toxic air in Reading is having hugely negative effects on people’s health. Reading Council has been promising a Low Emissions Zone in the city for the last nine years – but has failed to make any progress. Greens care about the health of our residents and believe real action can and must be taken urgently.

**Rob White, Green Councillor,
Reading Borough Council**

- 1 Local authorities are required to report annually on the levels of pollution and can remove an AQMA if the average annual levels fall back within the legal limit
- 2 Defra (2015) Valuing impacts on air quality: Updates in valuing changes in emissions of Oxides of Nitrogen (NO_x) and concentrations of Nitrogen Dioxide (NO₂). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/460401/air-quality-econanalysis-nitrogen-interim-guidance.pdf
- 3 Office for National Statistics; National Records of Scotland; Northern Ireland Statistics and Research Agency (2016): 2011 Census aggregate data. UK Data Service (Edition: June 2016). DOI: <http://dx.doi.org/10.5257/census/aggregate-2011-1>
- 4 Reading Borough Council, 2017 Air Quality Annual Status Report (ASR), June 2017. http://www.reading.gov.uk/media/6388/Air-Quality-Annual-Status-Report/pdf/Reading_2017_Annual_Status_Report.pdf
- 5 Public Health England, Estimating local mortality burdens associated with particulate air pollution, 10 April 2014. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332854/PHE_CRCE_010.pdf
- 6 Reading Borough Council, (2018) Air Quality. <http://www.reading.gov.uk/article/9439/Air-Quality>
- 7 Reading Borough Council, 2017 Air Quality Annual Status Report (ASR), June 2017. http://www.reading.gov.uk/media/6388/Air-Quality-Annual-Status-Report/pdf/Reading_2017_Annual_Status_Report.pdf
- 8 Reading Borough Council (2015) Index of Multiple Deprivation 2015. <http://www.reading.gov.uk/media/3777/Deprivation-Map/pdf/IMD.pdf>
- 9 Reading Borough Council (2016) Living Environment, Index of Multiple Deprivation 2015. http://www.reading.gov.uk/media/5596/LivingEnvironment/pdf/Living_Environment.pdf
- 10 Reading Borough Council/LGA (Undated) Basic facts about Park Ward. http://www.reading.gov.uk/media/7661/Basic-facts-about-Park-Ward-LG-Infom-Census-profile/pdf/Basic_facts_about_Park_Ward_LG_Infom_Census_profile.pdf

CEMETERY JUNCTION

Despite recording no data for the first five months of 2016, the monitoring station at Wycliffe Church near Cemetery Junction on London Road, still saw ‘annual’ levels over the legal limit at 44.1µg/m³, with exceedances of over 50µg/m³ for four of the remaining months, so the actual exposure at this site is likely to be much more severe than reported.

Although sites are clearly over the safe levels, there are larger issues in this part of town. They have to do with poor monitoring.

This lack of information is a major issue for tackling the problem. Not only has the monitoring network not been changed since 2013⁶, the Council’s Annual Status Report reveals that in 2016, the London Road capture rate for NO₂ was just 75% and for PM₁₀ it was only 64%⁷, and despite techniques to calculate an annual estimate, by looking at the rest of the data across all the other sites in Reading, it is very clear that there are such large scale changes month-to-month, it would be very difficult to accurately account for the damage being done when the pollution in the air is not being monitored. This means that levels could really be much worse than reported.

The Council needs to rectify these issues as a priority. Not having data may mask the severity of the issue, meaning that certain areas might be neglected despite suffering severe problems. This will place people’s lives at further risk.

London Road and Cemetery Junction are in Park Ward. Whilst not one of the most deprived areas of Reading⁸, in terms of quality of the living environment, it was ranked as one of the worst areas, in the bottom 5-10%⁹.

Given that Park has a younger population than the Reading average, and more than double the Asian/British Asian population compared to the rest of the town¹⁰, in this instance it is clear that the effects of air pollution are not felt evenly by people in Reading; some communities are impacted more than others.



Urgent action is needed to tackle the bad air quality in Reading. Despite intentions to establish a Clean Air Zone dating back to 2009, and continued pressure from the local Green party to progress the plans to limit traffic, Reading Council has been slow to act.

Green Councillors in the town have been long campaigning to cut congestion and pollution. They oppose the plans for new roads to be built on green spaces along the river. They are calling for:

- **More walking and cycling provision**
- **The introduction of more 20mph zones across the town**
- **More charging points for electric cars**
- **A reduction in public transport fares**

Reading Greens also look to initiatives implemented by other European countries, such as diverting traffic and providing free bus travel on days when pollution levels are especially high.

KEITH TAYLOR, GREEN PARTY MEP FOR THE SOUTH EAST

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