

# NO<sub>2</sub>, PM<sub>10</sub> & O<sub>3</sub> Levels around Gloucestershire Schools

## Client: Gloucestershire County Council

The primary objectives of this study were twofold, firstly, to determine the spatial distribution of air pollutants (particularly nitrogen dioxide, PM<sub>10</sub>, and ozone) around 7 schools in Gloucestershire, and secondly, to compare the relative levels of air pollution during half term and during term time. For each school, the pollutant data measured during the morning traffic peak at half term and term time were compared, in order to establish the impact of the school run on the local pollution levels.

Findings determined the concentrations of PM<sub>10</sub> and O<sub>3</sub> tended to vary more from day to day rather than place to place, mainly due to a particulate pollution episode around this time, and variable weather conditions affecting the ozone levels. In contrast, NO<sub>2</sub> showed a large degree of spatial variability quite clearly associated with higher volumes of vehicle traffic. In general, the NO<sub>2</sub> levels directly outside the schools during term time were noticeably higher than during half term, but no obvious trend was seen for PM<sub>10</sub> or O<sub>3</sub>, due to the particulate pollution episode and variable weather conditions.



PM<sub>10</sub> levels in Gloucester 09/03/17

