



## Ozone levels have markedly decreased from previous year

Ozone levels decreased from the previous year however, the long term trend still indicates a continuing increase in ozone levels.

Short term changes in pollution in the UK are mainly dictated by weather. The changeable nature of weather in the UK results in highly variable levels of pollution. The situation is further complicated by atmospheric chemistry; pollutants react with other gases in the atmosphere and deposit onto surfaces such as roads and buildings.

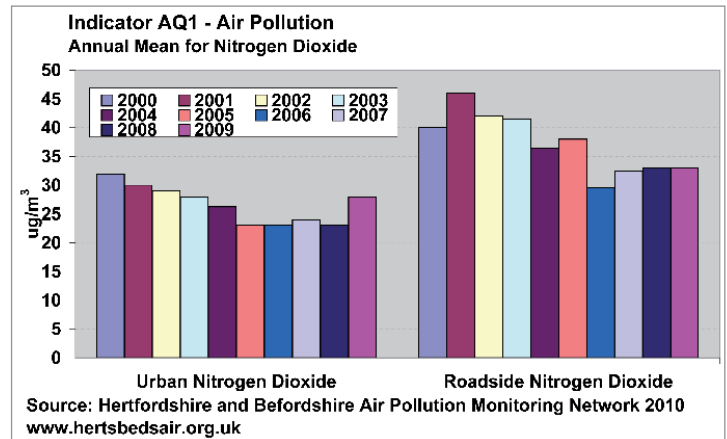
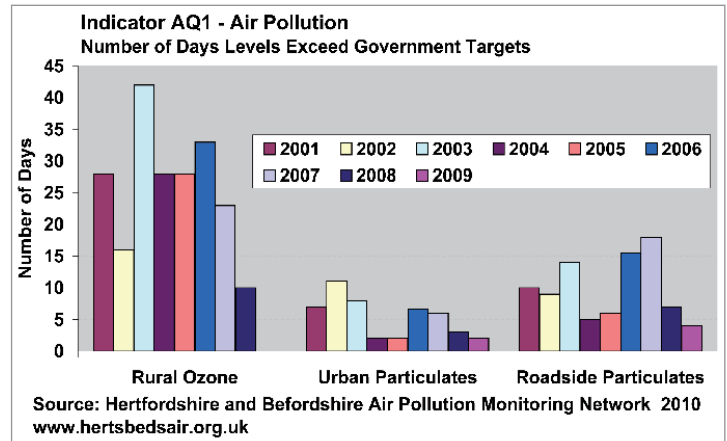
Monitoring data collected by the Herts and Beds Air Pollution Monitoring Network allows the assessment of air quality from day to day, establishes which areas are worse than others, and whether pollutant levels are rising or falling. The data can be used to see how pollutants interact with each other and how they relate to traffic levels and industrial activity. By studying the relationship between meteorology and air quality, it is possible to forecast which weather conditions will give rise to pollution episodes.

### Indicator AQ1 – Air Pollution

This indicator shows the quality of the county's air against the Government's five air quality criteria (see indicator graphs opposite for criteria). As seen in previous years, there were several days of 'moderate' ozone recorded at all network background and rural sites monitoring for this pollutant. These occurred throughout the late spring and early summer of 2009. Ozone levels recorded a marked decrease during 2009 from 2008 levels but the long term trend still indicates a continuing increase since 1998. The East Herts Rural site was decommissioned in 2009 due to poor data capture. Funding has been received to install an ozone monitor in a rural location in East Herts. Data should be available for the year 2011.

Moderate particulate matter (PM<sub>10</sub>) levels were also recorded at all roadside sites across the network. There were no days of 'high' or 'very high' PM<sub>10</sub> recorded at any site during 2009. The running annual mean PM<sub>10</sub> concentrations recorded at all sites during 2009 remained relatively stable with the end of year levels similar to those at the start. This follows a two year period of downward trend during 2007 and 2008.

All sites met the air quality objectives for nitrogen dioxide. There were no incidents of 'moderate' nitrogen dioxide recorded at any site during 2009.



### What are European Emission Standards?

The major source of air pollution in Hertfordshire is road traffic emissions. An effective method of reducing these emissions and improving air quality has been through legislation.

European Union (EU) directives have defined acceptable limits for exhaust emissions of all new vehicles covering oxides of nitrogen (NO<sub>x</sub>), hydrocarbons (HC), carbon monoxide (CO) and particulate matter (PM) emissions. The limits are set at different levels for different vehicle types.

DEFRA has modelled the effectiveness of introducing Euro III, IV and V emission standards for the years 2001-2010.

However the increased efficiency of motor vehicles is currently being outweighed by the increasing number of cars driven on the roads. The recession has seen a small downward trend in the sales of motor vehicles, apart from the smaller city car. This may be reflected in the air quality in the UK over the next few years.