

air quality assessments



One of the most important environmental concerns of the 21st Century is the impact of traffic flow on the quality of the air that we breathe. With the nationwide demand for new residential and commercial developments increasing, the additional traffic that they generate could only add to the problem. As a reaction to this, many local authorities have designated specific parts of their towns as Air Quality Management Areas due to the potentially high levels of pollution there.

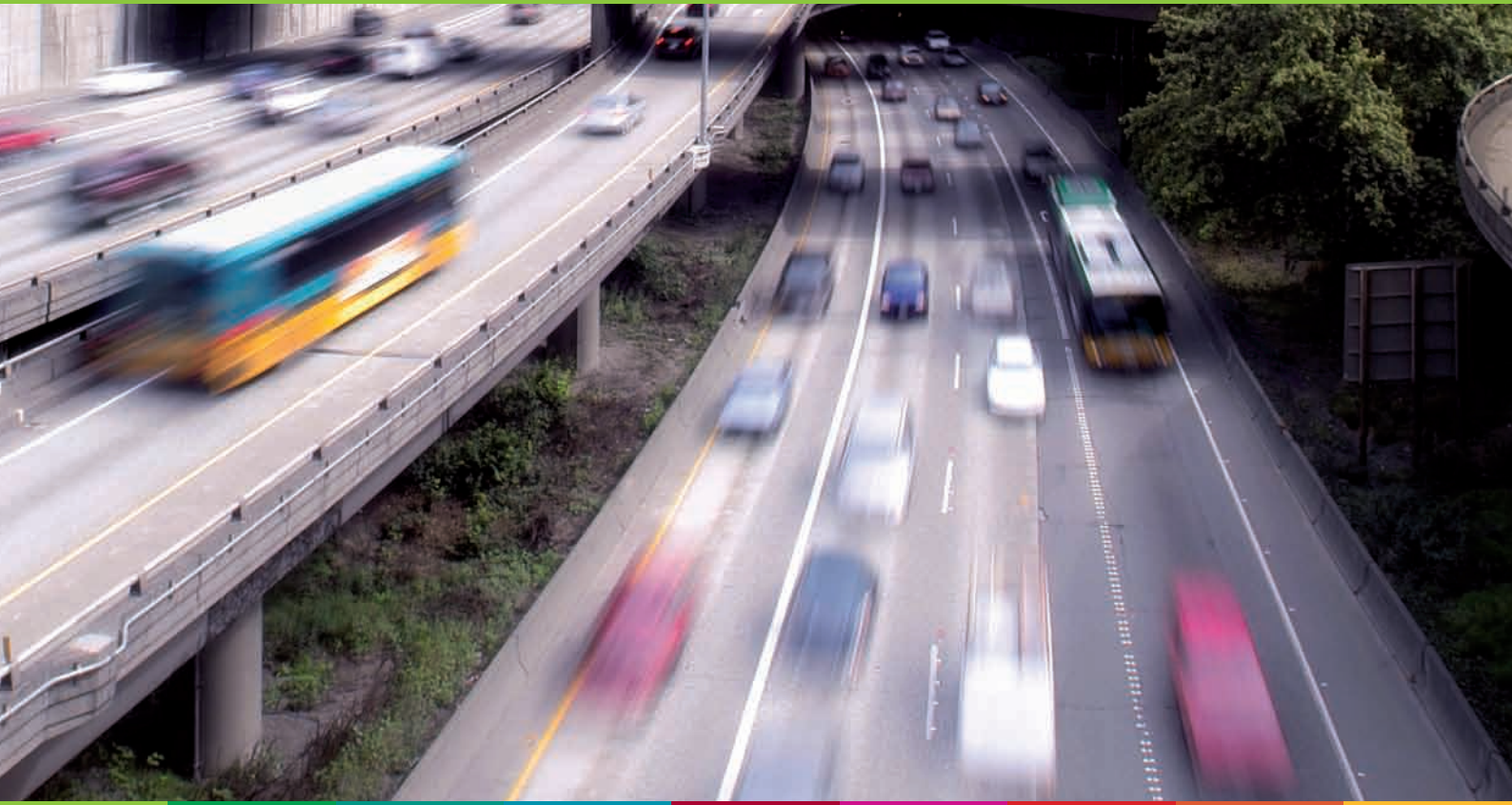
Denis Wilson specialises in conducting Air Quality Impact Assessments for new developments, especially where there's likely to be a change in pollutant concentrations.

When we carry out these assessments we use volume 11 of the DfT's Design Manual for Roads and Bridges' (DMRB) Screening Method, which looks at traffic volume, traffic composition and vehicle speeds to determine the amount of pollution along a given road in a specific location. Any change in these factors could potentially have an effect on the quality of air in the surrounding area and within the immediate community.

The Screening Method measures four different types of component, as identified by DMRB 11, for local assessment:

- >> carbon monoxide
- >> hydrocarbons
- >> oxides of nitrogen
- >> particulates

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As different types of vehicle will have different types of engine, they will produce different quantities of each component. By comparing the results from the Screening Method with the standards specified by the Government's Air Quality Strategy, we can see if any pollutants are exceeding their concentration threshold.

Finally, by calculating pollution levels for some years ahead, we can see whether future vehicle emission restrictions will have an impact on pollution level reduction that is significant enough to outweigh the effects of increased traffic from the development.