

RACE - REVIEW AND ASSESSMENT OF COMMUTER EMISSIONS**N.E. Davey¹, J.W.S. Longhurst²**¹*WSP Environmental Ltd, Bristol, UK*²*Air Quality Management Resource Centre, University of the West of England, Bristol, UK*

The importance of accurate and representative air quality impact assessment (AQIA) for new developments is becoming increasingly important with the introduction of Air Quality Management Areas, air quality action plans, stricter legislative requirements and increasing traffic flows. It is argued that incorporation of workforce profile variables (WPVs) will allow a more detailed site-specific air quality assessment to be undertaken. The findings from this work enable an evaluation of whether such variables should be included in AQIAs for employment related developments. The RACE project examines the effect of including regional, specific location and WPVs (age, gender and socio-economic grouping) in commuter emissions prediction and the need for inclusion of such variables in AQIA for new employment related developments. Such WPVs are not considered in conventional AQIA and therefore results from this work are compared with conventional techniques. In order to achieve this, two models have been developed which inter-relate specific data from the UK National Travel Survey and emission factors. These predict emissions impact and traffic generation and have been applied to three case study scenarios in the UK covering a range of employment development in London, Bath and Devon. The outcomes from the comparison indicate that lower pollutant concentrations are likely from the inclusion of WPVs when compared with the conventional approach to AQIA. The significance of these differences will be interpreted and reported to the conference. It is concluded that the inclusion of WPVs will lead to greater confidence in the air quality predictions associated with new employment developments.