



## **Interpreting atmospheric composition measurements around London during the ClearfLo campaign using the NAME dispersion model**

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In order to interpret composition measurements taken in London during the ClearfLo (Clean Air for London) campaign from 2011 to the present (with intensive measurement campaigns in summer and winter 2012), atmospheric dispersion modelling with the NAME model was undertaken. Measurements of a variety of trace gases, aerosols and meteorology were taken at five sites to the west of London, in central London and east of the city. Dispersion modelling showed when each site received the same air masses and whether the evolution of the air mass composition could be tracked as the air crossed the city. Variability in the level of pollutants and trace gases could be assigned to changes in air mass origin at certain times but more local events were too small scale to be assigned with this dispersion model. Dispersion modelling and using the resulting air mass footprints was found to be a useful visualisation as well as quantitative tool to interpret the many trace gas measurements at strategically different geographical locations around a city and help explain the complex air quality influences on London and the South east of England.