APPENDIX 14.4: MODEL VERIFICATION

The comparison of modelled concentrations with local monitored concentrations is a process termed 'verification'. Model verification investigates the discrepancies between modelled and measured concentrations, which can arise due to the presence of inaccuracies and/or uncertainties in model input data, modelling and monitoring data assumptions. The following are examples of potential causes of such discrepancy:

a) estimates of background pollutant concentrations;
b) meteorological data uncertainties;
c) traffic data uncertainties;
d) model input parameters, such as 'roughness length'; and
e) overall limitations of the dispersion model.

Verification Methodology

Detail of the verification process data is presented in the table below. The adjustment factor (7.4) was derived which shows model results were under-estimating current conditions when comparing to the measured concentrations.

Monitoring Site	Monitored Total NO_2	Background NO_2	Monitored Road Contribution NO_2	Monitored Road Contribution NO_x	Modelled Road Contribution NO_x	Ratio of monitored NO_x road contribution /modelled road contribution NO_x	Adjustment factor for modelled road contribution
Whiston Tube	16.0	9.8	6.2	11.8	1.6	7.4	**7.4**