

It is evident from the results presented in these tables that under all scenarios there would continue to be non-compliances with the AQOs in the SAR. In 1997, ten such non-compliances were recorded. This is expected to increase to 14 under the High Growth (High End) Scenario and to 12 under the High Growth (Low End) Scenario. Under the Low Growth scenario the number of non-compliances is predicted to be the same as in 1997.

All scenarios under the Recommended Transport Strategies exceeded Air Quality Objectives. The predicted air quality under the Low Growth Scenarios is similar to that of 1997.

A series of model runs were undertaken to ascertain the contribution of traffic emissions to air quality in the SAR. For illustrative purposes, the predictions for daily and annual average concentrations of nitrogen dioxide and annual average concentrations of RSP have been selected for analysis. The year 2016 was selected and the High Growth (Low End) and Medium Growth scenarios were used.

Figures 5.3y and 5.3z present territory-wide daily average concentrations of nitrogen dioxide attributable to traffic emissions under typical photochemical smog conditions for the High Growth (Low End) and Medium Growth scenarios, respectively. Under the High Growth (Low End) scenario, concentrations in excess of 30  $\mu\text{gm}^{-3}$  are predicted to be generated from traffic, this is similar for the Medium Growth scenario.

Annual average concentrations of  $\text{NO}_2$  and RSP attributable to vehicle emissions are presented in Figures 5.3aa to 5.3ad for the High Growth (Low End) and Medium Growth scenarios. Predictions of the  $\text{NO}_2$  and RSP annual average concentrations at each of the AQMS were repeated but with all vehicle emissions set to zero. The percentage contributions to annual average concentrations of  $\text{NO}_2$  and RSP attributable to traffic emissions at each of the existing AQMS are presented in Tables 5.3x and y, respectively.

**Table 5.3x**  
**Traffic contributions to annual average  $\text{NO}_2$  concentrations**

AQMS	High Growth (Low End) % traffic contribution	Medium Growth % traffic contribution
Central/Western	14%	13%
Mong Kok	18%	17%
Sha Tin	27%	24%
Yuen Long	22%	20%
Tseun Wan	11%	10%
Kwai Chung	22%	20%
Sham Shui Po	20%	18%
Kwun Tong	14%	13%
Tai Po	16%	15%

Note: Contribution from traffic are in terms of general air quality, traffic contributions to road-side air quality are expected to be higher.