

emission standards for vehicles.

A comparison between Figures 5.3a and 5.3g indicates that the areas of reduced nitrogen dioxide concentrations are more extensive under this scenario and are more clearly associated with the densely populated urban areas in Kowloon and the Hong Kong Island.

Table 5.3j
Annual Average Concentrations of RSP (μgm^{-3})

AQMS	1997	Increment	Total
Central/Western	51	2.3	53.3
Mong Kok	60	5.6	65.6
Sha Tin	49	5.7	54.7
Yuen Long	58	6.5	64.5
Tsuen Wan	54	1.6	55.6
Kwai Chung	46	3.6	50.6
Sham Shui Po	57	3.7	60.7
Kwun Tong	56	3.7	61.7
Tai Po	59	0.5	59.5

The total number of AQMS deemed to be out of compliance with the annual average AQO for RSP is predicted to increase to six, from the five stations observed to be out of compliance in 1997. Concentrations are predicted to increase at all AQMS. At Yuen Long the annual average is anticipated to increase by 11%, to approximately $64.5 \mu\text{gm}^{-3}$, 17% higher than the AQO. At Sha Tin, the RSP concentration is predicted to be within $1 \mu\text{gm}^{-3}$ of the AQO and exceedance at this AQMS cannot be ruled out.

Figure 5.3h shows the predicted increases in RSP on a territory-wide basis. Increases of 2.5 to $7.5 \mu\text{gm}^{-3}$ are predicted in the western half of the SAR, particularly in the Mong Kok, Tsuen Wan, Tuen Mun, Yuen Long and Fanling areas. Concentrations in the vicinity of Pokfulam are predicted to increase by approximately $5 \mu\text{gm}^{-3}$. Decreases in predicted concentrations are most marked in the Kowloon Peninsula and Wan Chai/Causeway Bay areas, thereby demonstrating that if vehicle growth is constrained, the improved emission standards assumed under this analysis are sufficient to bring about reductions in ambient levels of RSP.

Daily Average Concentrations of Nitrogen Dioxide and RSP

Table 5.3k presents the daily average concentrations of nitrogen dioxide and RSP predicted to occur under conditions typical of photochemical smog in the SAR. The table also shows the threshold concentration for observations in 1997, beyond which there is a strong probability that the AQMS would exceedance the AQO for either nitrogen dioxide or RSP.