Table 5.3f
Changes in Daily Average Concentrations (μgm^{-3})
under Typical Photochemical Smog Conditions

AQMS	Nitrogen dioxide	Threshold	RSP	Threshold
Central/Western	18.8	131.2	6.5	173.5
Mong Kok	8.2	141.8	13.4	166.6
Sha Tin	4.6	145.4	10.0	170.0
Yuen Long	1.5	148.5	1.9	178.1
Tsuen Wan	3.0	147.0	3.2	176.8
Kwai Chung	4.8	145.2	8.5	171.5
Sham Shui Po	8.1	141.9	7.8	172.2
Kwun Tong	7.3	142.7	11.8	168.2
Tai Po	3.6	146.4	3.1	176.9

As presented in Table 5.3a, in 1997 the AQMS at Kwun Tong, Mong Kok and Sham Shui Po all reported non-compliances for nitrogen dioxide (daily average greater than 150 μgm^{-3}). The predictions indicate that concentrations at these stations would all be likely to increase under photochemical smog conditions, relative to levels reported in 1997. Analysis of the complete set of AQMS data for 1997 indicates that additional exceedances of the AQO can be anticipated at the Kwai Chung and Tai Po stations. The number of exceedances reported at Kwun Tong is expected to increase from 2 to 4 respectively, while the number of exceedance at Sham Shui Po will remain at 3. The largest increases are predicted to arise at the Central/Western AQMS. The Central/Western AQMS was in compliance with the standard in 1997. For the Central/Western AQMS, the threshold concentration is approximately the same as the maximum reported in 1997, indicating that exceedances of the AQO may occur.

Figure 5.3c presents the predicted changes in nitrogen dioxide concentrations during a photochemical smog event. The most significant increases in the daily average concentration are predicted to arise in the Central/Western area, with an increase of approximately 15 μgm^{-3}. Increases of greater than 7.5 μgm^{-3} are predicted across the whole of Hong Kong Island and most of Kowloon.

Exceedances of the daily average AQO for RSP (180 μgm^{-3}) were reported for the Mong Kok and Sha Tin AQMS in 1997 and under typical photochemical smog conditions, levels of RSP at these two locations are anticipated to increase by 13.4 and 11.8 μgm^{-3} respectively. The most significant increases in concentration are predicted to occur at the Mong Kok, Kwun Tong and Sha Tin AQMS. Non-compliances with the daily average AQO for RSP have been predicted at the Mong Kok, Sha Tin and Kwun Tong AQMS in 2016. For all of the remaining AQMS, whilst increases in the RSP concentration are anticipated, it is not predicted that these will lead to exceedances of the AQO.

Figure 5.3d presents the predicted changes in RSP concentrations over the SAR. The most significant increases are predicted to arise in the Wan Chai and Causeway Bay areas. In these areas, the daily average RSP concentration is predicted to increase by