

over $15 \mu\text{gm}^{-3}$. Increases of daily average RSP concentrations of over $2.5 \mu\text{gm}^{-3}$ are predicted across most of the urban areas.

In addition to photochemical smog episodes, air quality in Hong Kong is also influenced by periods in which high levels of RSP prevail. These are typically associated with northerly or north-easterly winds which create a general increase in background concentrations.

Table 5.3g
Changes in Daily Average Concentrations (μgm^{-3})
under Typical Episodes of High Levels of RSP

| AQMS | Nitrogen dioxide | Threshold | RSP | Threshold |
|-----------------|------------------|-----------|-----|-----------|
| Central/Western | 11.8 | 138.2 | 5.8 | 174.2 |
| Mong Kok | 3.1 | 146.9 | 3.6 | 176.4 |
| Sha Tin | 2.9 | 147.1 | 3.8 | 176.2 |
| Yuen Long | 1.1 | 148.9 | 1.7 | 178.3 |
| Tsuen Wan | 1.2 | 148.8 | 2.2 | 177.8 |
| Kwai Chung | 1.7 | 148.3 | 2.2 | 177.8 |
| Sham Shui Po | 2.8 | 147.2 | 2.3 | 177.7 |
| Kwun Tong | 2.2 | 147.8 | 2.2 | 177.8 |
| Tai Po | 0.4 | 149.6 | 0.5 | 179.5 |

With reference to the data presented in Table 5.3b, it is evident that the Kwun Tong and Sha Tin AQMS would continue to report exceedances of the AQO for daily average concentrations of RSP. Although the increase is relatively small (2% above 1997 levels), exceedances at Mong Kok AQMS are also predicted in 2016. For all of the remaining stations, it is anticipated that the AQO would not be exceeded under these conditions.

Maximum Hourly Average Concentrations of Nitrogen Dioxide and Ozone

Table 5.3h presents the predicted changes in the maximum hourly average concentrations of nitrogen dioxide and ozone under typical photochemical smog conditions. In addition to the presentation of predictions at each of the AQMS, the table also shows the threshold concentration and the maximum increase predicted in the model domain. The latter is considered particularly important for the ozone predictions as these are likely to be at a maximum some distance downwind of the urban areas in which the AQMS are located. Emissions of nitric oxide from the urban areas would tend to reduce local ozone concentrations. As the AQMS are intentionally sited in densely populated areas, it is probable that increases in emissions from sources such as motor vehicles would create local reductions on ozone concentrations but increases in the areas downwind.