

Air Quality

What this is about...

High levels of suspended particulate (fine dust) can directly impact on the health and wellbeing of citizens. The main causes of high levels of suspended particulate are fires and industrial emissions from smoke stacks. Levels are generally higher in winter than in summer as wood fires are used to heat homes.

It is very important that air quality is monitored and managed. Recently, the NZ Automobile Association reported that “(a)ir quality monitored from different sites by the Auckland Regional Council shows toxic pollutants going into the air weigh more than half the solid waste going into landfills in the area. The amount of fine particulate pollution, caused mainly by diesel vehicles, amounts to 500 bags of cement being shaken out into the air every day”.¹⁶¹

Each of the six cities records the number of times the level of suspended particulate exceeds Ministry for the Environment (MfE) standards (exceeds 50 mgm³) in a year at selected sites. It is difficult to compare results for each city as there are a number of factors that can affect readings.¹⁶² However, the data presented here provides an indication of air quality problems where remedial action is required.

What did we find ?

The main finding was that there are very high levels of suspended particulate in Christchurch City compared to the five other largest cities. This is affected by the city’s location with the Port Hills to the south and the sea to the east, which creates the effect of an inversion layer. By contrast, the prevailing winds in Auckland and Wellington Cities disperse air pollution relatively quickly.

NUMBER OF EXCEEDANCES OF AIR QUALITY STANDARD
AT THE WORST SITES IN EACH CITY (1997 TO 1999)

	1997	1998	1999
Auckland - Penrose	3	0	2
Manukau - East Tamaki	4	1	2
North Shore - Takapuna	1	0	0
Waitakere - Henderson	n/a	0	1
Wellington	n/a	0	0
Christchurch - St. Albans	33	27	35

Data Source: Data supplied by each Council

There are other ways to measure air quality such as carbon monoxide levels. Carbon monoxide is mainly caused by vehicle emissions. The Auckland Regional Council recently ran a campaign encouraging vehicle emission testing in an effort to reduce carbon monoxide levels in the Auckland Region. (It is estimated that a well-tuned vehicle can reduce emissions by up to 25%.) It focused on motor vehicles as the main cause of air pollution stating “Over 80% of the air pollution in the Auckland Region is the result of vehicle emissions” and “Carbon monoxide levels in Auckland are higher than London”.

161 NZ Automobile Association. Directions. August 2000.

162 Because there are a different number of sites for each city, one site per city has been selected for this report, where there was more than one site, the results from the worst site are highlighted.