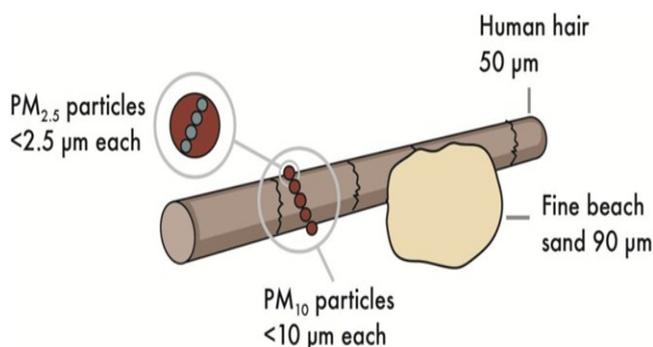


Airsheds that Exceeded the PM₁₀ National Standard on 2 or More Days

This factsheet provides statistics on the number of airsheds that exceeded the PM₁₀ (particulate matter less than 10 micrometre) national standard on 2 or more days a year. Particulate matter in the air can contribute to negative health effects. Monitoring the times the national PM₁₀ standard is exceeded helps to determine the short-term exposure to poor air quality.

HIGHLIGHTS:

- In 2012, 19 out of 38 monitored airsheds exceeded the PM₁₀ standard on 2 or more days.
- Since 2006, the lowest number of airsheds that exceeded the PM₁₀ standard on 2 or more days occurred in 2012



Source: Ministry for the Environment, 2014

Short-term exposure to high PM₁₀ can cause health effect within 24 hours.

Good air quality is fundamental to our health and wellbeing. We each breathe about 14,000 litres of air each day. Contaminants in outdoor air can adversely affect our health.

Particulate matter (PM) consists of small airborne particles, including solid matter and liquid droplets. PM in the air can contribute to heart (cardiovascular) and lung (respiratory) diseases, leading to hospital admission, cancer and premature death (WHO, 2013; Loomis et al., 2013).

PM₁₀ (particles with a diameter less than 10 micrometres) is the major air pollutant monitored in New Zealand. Short-term exposure to high PM₁₀ can cause health effects (e.g., respiratory, cardiovascular health effects and premature death) within 24 hours (WHO, 2013). Monitoring the number of times the national standard is exceeded helps to understand how often people are exposed to short-term poor air quality (Ministry for the Environment, 2014).

The National Environment Standards for Air Quality (NESAQ) includes a daily PM₁₀ standard defining the minimum requirements that outdoor air quality must meet (Ministry for the Environment, 2014).

In 2012, half of all monitored airsheds exceeded the PM₁₀ standard on 2 or more days

In 2012, daily PM₁₀ concentrations were measured in 38 airsheds (areas defined for air-quality management purposes, generally based around urban and city areas) (Ministry for the Environment, 2014).

In 2012, 19 of the 38 airsheds (50%) exceeded the daily PM₁₀ standard on 2+ days. This was a decrease from 22 airsheds in 2011 (Table 1).

In 2012 (Table 1):

- 4 airsheds exceeded the PM₁₀ standard on 21–50 days
- 7 airsheds exceeded the standard on 11–20 days
- 8 airsheds exceeded the standard on 2–10 days.

Table 1: Number of airsheds exceeding the PM₁₀ national standard on 2 or more days

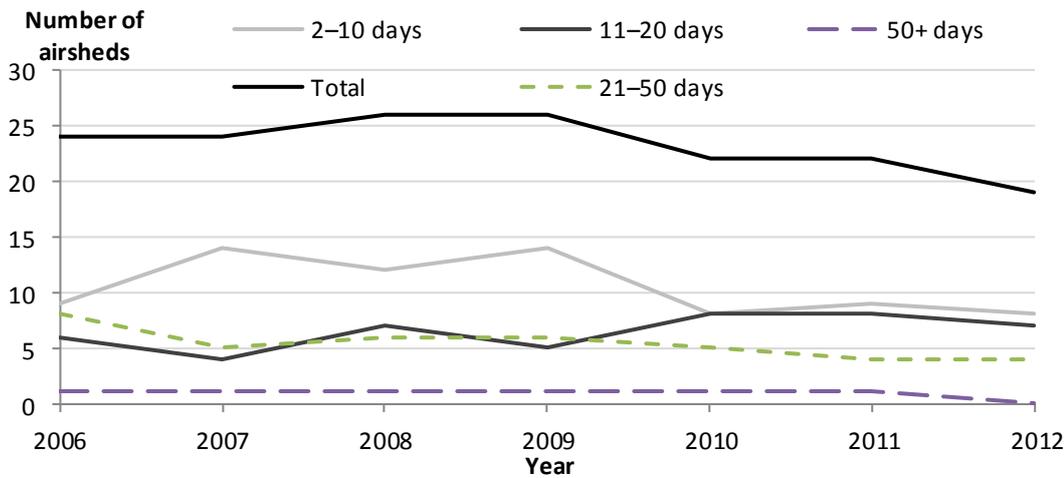
Exceeded days	2011	2012	Change
2–10 days	9	8	↓
11–20 days	8	7	↓
21–50 days	4	4	-
50+ days	1	0	↓
Total	22	19	↓

Source: Ministry for the Environment, 2014

Since 2006, the lowest number of airsheds that exceeded the PM₁₀ standard on 2 or more days occurred in 2012

In the period 2006-2012, the lowest number of airsheds that exceeded the PM₁₀ national standard on 2 or more days occurred in 2012 (Figure 1).

Figure 1: Number of airsheds exceeding the PM₁₀ national standard on 2+ days a year, 2006-2012



Source: Ministry for the Environment, 2014

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References:

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