

State of the Environment Report Card 2017

How does our air stack up?



How we measure air quality?

PM₁₀ is the concentration of fine smoke particles. The National Environmental Standard for PM₁₀ is 50 µg/m³ expressed as a 24 hour mean. The guideline annual average PM₁₀ is 20 µg/m³. However, adverse health effects can occur when any particles are present.

The National Environmental Standard (NES) for PM₁₀ was not exceeded in 2017 in the Napier and Awatoto airsheds, and was exceeded once in the Hastings airshed.

- There has been a downward trend in PM₁₀ over the past ten years
- Strong winds and warm temperatures help reduce concentrations.
- The maximum 24 hour average concentration in Hastings was 55 µg/m³, 44 µg/m³ in Napier and 75 µg/m³ in Awatoto. The high concentration in Awatoto was caused by sea spray, so the Minister for the Environment exempted it from being recorded as an exceedance of the NES.
- Annual average PM₁₀ in the Hastings and Napier airshed in 2017 was 13 µg/m³ and in the Awatoto airshed it was 18 µg/m³.

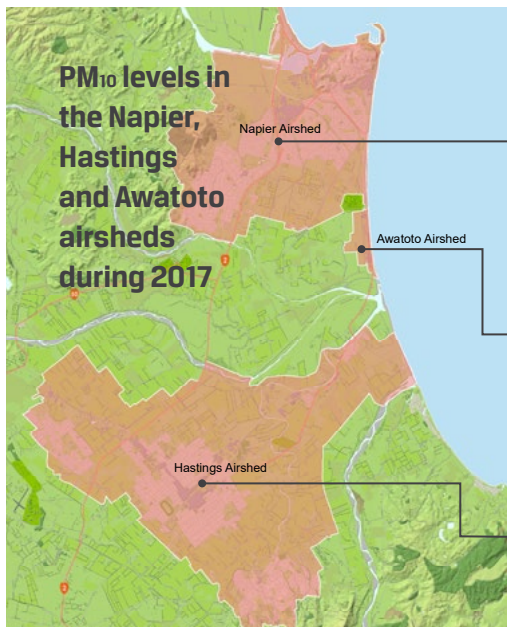
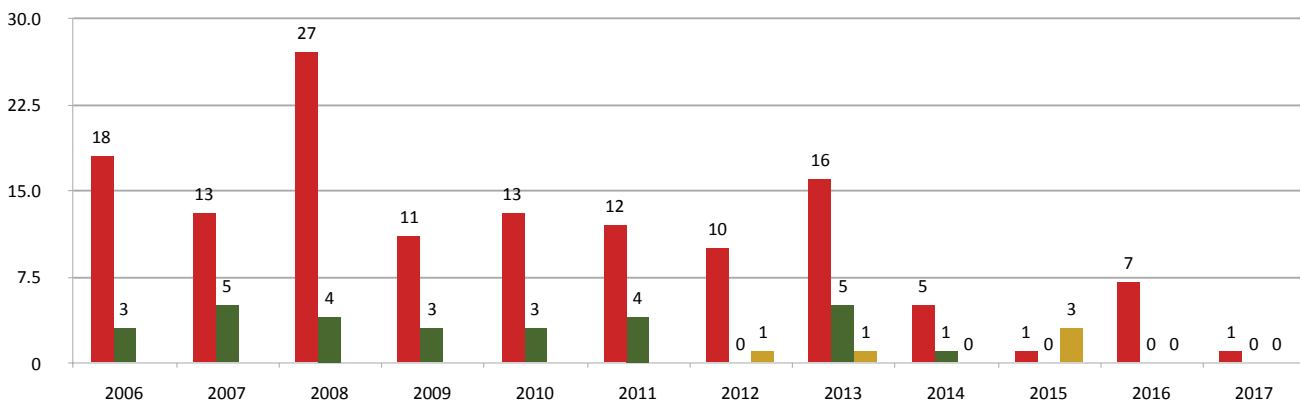
QUICK FACTS

On average we breathe **10** litres of air a minute

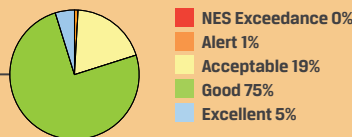
On a typical winter's day approx **1.5** tonnes of PM₁₀ is emitted into the air from human sources in Napier and Hastings.

The annual number of exceedances of the NES for PM₁₀ from 2006 to 2017

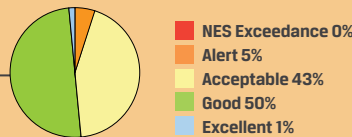
Hastings Napier Awatoto



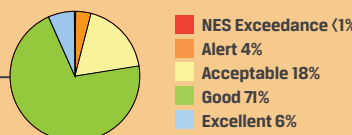
Napier Airshed



Awatoto Airshed



Hastings Airshed



Monitoring sites

HBRC monitors PM₁₀ at three sites in Napier, Hastings and Awatoto. Every 15 minutes 365 days a year.

- NES Exceedance >50 µg/m³
- Alert 33.3 - 50 µg/m³
- Acceptable 16.6 - 33.3 µg/m³
- Good 5 - 16.6 µg/m³
- Excellent <5 µg/m³

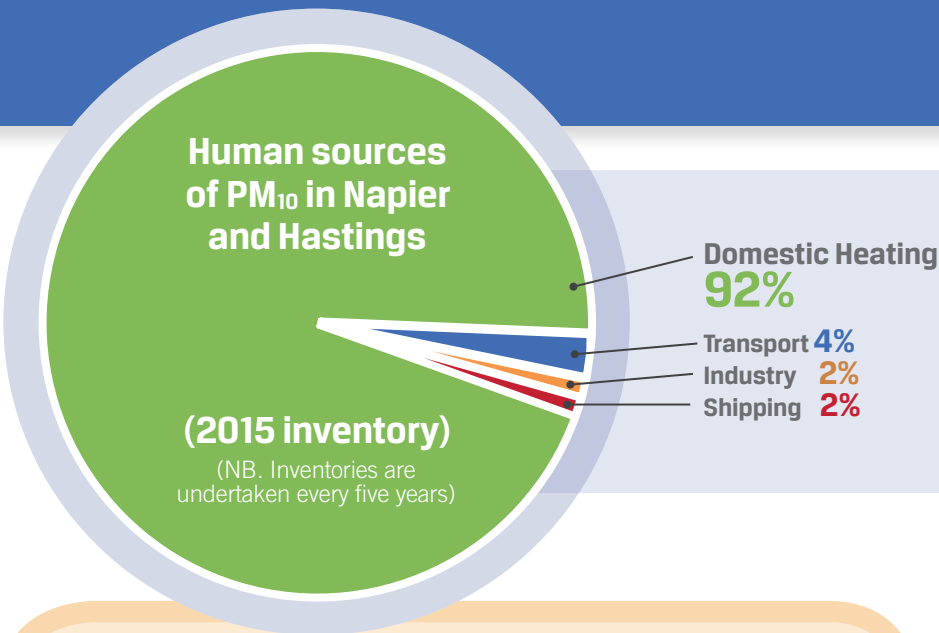
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QUICK FACTS

Health effects attributed to air pollution include lung cancer and other lung and heart diseases

Burning treated and painted timber can release toxins, e.g. arsenic and lead, into ambient air and into your home



Air quality rules

We want clean, healthy air in Hawke's Bay.

Smoke, fumes, odours and other products of combustion have a major impact on air quality. Apart from natural forest fires and geothermal activities, combustion/burning is the result of people's activities. Burning has a major impact on human health and activity. It smells and can aggravate or cause lung conditions and cause sore eyes.

HBRC has consulted with the community and set rules through the Regional Resource Management Plan to limit the effects of smoke from industrial, agricultural and home based activities. Local city and district councils also have their own rules about burning and should be contacted to check whether you are able to light a fire.

HBRC has run a campaign to encourage orchardists and farmers to manage fires, so that dry material only is included and that no accelerants are used (ie no tyres or waste oil, which produce damaging toxic fumes).



Find out more

Hawke's Bay Regional Council monitors our land, water and air.

We use this data to inform our work with communities to improve and protect the environment.

Each year we develop a series of report cards to provide you with a snapshot of how our environment is tracking.

For more details including the full technical reports visit www.hbrc.govt.nz (search: report search)

For up to the minute monitoring results from Hawke's Bay and other parts of the country visit www.lawa.org.nz

