

Frequently asked questions about air quality in the Latrobe Valley

Environment Protection Authority Victoria (EPA) answers some of the community's most frequently asked questions about air quality, air pollution and monitoring in the Latrobe Valley.

FACT SHEET

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200 Victoria Street, Carlton VIC 3053

What pollutants are in the air in the Latrobe Valley?

In many parts of Victoria, low levels of nitrogen dioxide (NO₂), sulfur dioxide (SO₂) and carbon monoxide (CO) from industry and car emissions are present in the air. In the Latrobe Valley all of these gases have remained well below the relevant national air quality standards in the previous 12 months.

Fine airborne particles (PM_{2.5}) from smoke will occasionally exceed the national air quality standard. In most places in Victoria, this is usually due to bushfires, planned burns or landholders burning off.

There will also sometimes be high levels of slightly bigger particles (PM₁₀) in the air. This will normally be caused by localised dust events from unsealed roads or mines.

What is smoke?

Smoke is a complex mixture of gases and fine particles and can come from a variety of sources.

What are the potential health impacts of smoke exposure?

Smoke can affect people's health. The small particles can cause itchy eyes, a sore throat, a runny nose and coughing. For healthy adults these effects usually disappear quickly once they move away from the smoky conditions.

People with heart or lung conditions (including asthma), children, pregnant women and people over the age of 65 years are more sensitive to the effects of breathing in smoke.

In the case of exposure to smoke, people with existing heart or lung conditions should follow the treatment plan advised by their doctor. If a person is experiencing symptoms that may be due to smoke exposure, seek medical advice or call NURSE-ON-CALL on 1300 60 60 24.

Anyone experiencing wheezing, chest tightness and difficulty breathing should call 000.

What does the general standard of air quality in the Latrobe Valley mean for human health?

EPA's air quality data shows that air quality in 2015 was consistently good in the Latrobe Valley. This is consistent with long-term air quality data in the region. Overall, air quality in the Latrobe Valley is comparable to Geelong and metropolitan Melbourne.

In 2015 all the pollutants monitored by EPA in the Latrobe Valley (PM_{2.5}, PM₁₀, NO₂, SO₂, O₃ and CO) have met the air quality goals set by the national air quality standards ([Ambient Air NEPM](#)). These goals allow for a small number of breaches of the daily standards for key pollutants, such as PM_{2.5}.

The various ambient air quality standards and investigation levels used by EPA are set at levels for the protection of human health and wellbeing from the sort of exposures that might be experienced by the general public.

What does it mean if I see cautionary health advice on EPA's website?

The cautionary health advice shown on [EPA AirWatch](#) is triggered by levels of PM_{2.5} in the air. Low and moderate levels of PM_{2.5} do not trigger health advice.

Each category shown on EPA's website has specific health advice that suggests practical ways you can reduce the possible impacts of smoke on your health.

On occasion, cautionary health advice can be triggered when the air is no longer smoky. This normally means that PM_{2.5} levels have been high at some stage over the previous 24-hour period, but that the smoke has now cleared.

If you see or smell smoke when a health category is triggered, this means that the cautionary health advice applies.

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What is 'visibility reduction'?

Visibility reduction is a measure of how visual range is affected by particles such as dust and smoke - it is not a measurement of the concentration of particles in the air.

Visibility reduction is shown on EPA AirWatch as an airborne particle index. This is different to how EPA reports on concentrations of PM_{2.5} and PM₁₀.

Do visibility reduction measurements trigger health advice on EPA AirWatch?

The health categories used on EPA AirWatch are based on PM_{2.5} levels. Visibility reduction measurements are not used to automatically trigger health advice. This is because visibility reduction measurements and PM_{2.5} concentrations are not the same thing.

When no other particle measurements are available, EPA will use visibility reduction measurements to assess the level of particles in the air.

[Observing landmarks](#) is a good way to estimate particle levels when

no air quality data is available. Generally the further you can see into the distance, the lower the level of particles in the air.

For more information, go to [Smoke from fires - plan ahead and protect your health](#) on the [health.vic website](#)

What is 'ambient air' and why does EPA monitor it?

Ambient air is the air at ground level that we breathe every day.

EPA monitors ambient air because this is the part of the air where pollution potentially will have the most impacts on the health of the community.

The Air NEPM sets the national standards for the key air pollutants most Australians are exposed to.

For more information see [Air quality standards](#) on the [Department of the Environment website](#)

Why are the air monitoring stations at Moe and Churchill only monitoring PM_{2.5} particles?

EPA commissioned the air monitoring stations at Moe and Churchill in response to the

Hazelwood mine fire in February and March 2014.

Since the mine fire, EPA's air quality monitoring in the Latrobe Valley has focused predominately on monitoring PM_{2.5}. This is because PM_{2.5} levels are a good indicator of the concentration of smoke in the air, and are used to evaluate any risks to human health.

This focus on monitoring PM_{2.5} is consistent with changes to EPA's air monitoring across the state, with an increased number of PM_{2.5} monitors added to the air monitoring network.

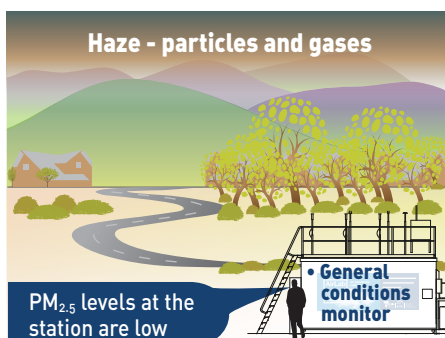
Why do EPA's air monitoring stations go off line sometimes?

Important routine maintenance activities (such as calibrating air monitors) or technical difficulties with a monitor or a database will sometimes result in an air monitoring station not showing data on EPA's website.

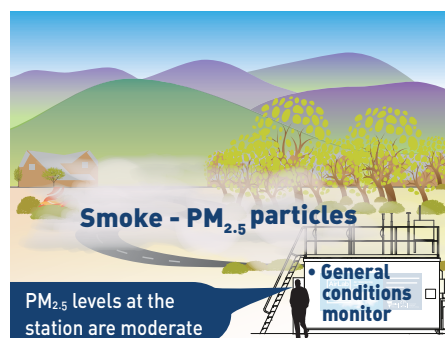
When this occurs, EPA will inform the community of the cause of the missing data with a notice on EPA AirWatch.

I can see haze in the air - why is there no health advice on EPA AirWatch?

Haze is high up in the air - not hazy at ground level



Haze at the air monitoring station is caused by moderate levels of smoke



Haze at the air monitoring station is caused by particles bigger than PM_{2.5}

