

Air Quality

Community
information



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EPA Victoria, 200 Victoria Street, Carlton.

What is EPA's role with regard to air quality?

EPA routinely monitors air quality in Melbourne, Geelong and the Latrobe Valley. During major bushfires, extra monitoring may be set up in affected areas, to check for impacts on local communities.

For the fire at the Hazelwood open cut mine, EPA is providing specialist air quality advice to the CFA and the Department of Health based on monitoring data, around the vicinity and weather forecasts. Extra air quality monitoring is also being installed today and tomorrow, including specialised equipment from out of State.

Emergency services and the EPA will continue monitoring over coming weeks to inform risk management for communities and firefighters.

What does EPA measure?

EPA takes measurements of a range of common air pollutants, including particles and gases.

In Melbourne, this includes three measures of particles (visibility reduction, PM₁₀ and PM_{2.5}), and four types of gases (ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide). A subset of these pollutants is measured in Latrobe Valley and Geelong. The monitoring program in Latrobe Valley has been designed to focus on particles from planned burns and bushfires, and sulphur dioxide from power generation.

All monitoring is done with modern specialised instruments to a high standard.

What additional monitoring does EPA have in place as a result of the fire at the Hazelwood open cut mine?

Monitoring of carbon monoxide is being undertaken continuously both at the mine site and in the Morwell community by Emergency Services HazMat technicians. This information is being used by the Emergency Services and the Department of Health to ensure appropriate advice is being given to the community, via the Emergency Information website: <http://emergency.vic.gov.au>.

EPA is currently measuring particle levels in Morwell East and Traralgon, plus a range of gases at Traralgon. Deployment of further monitoring in Morwell and Morwell East is planned over the next week. EPA is currently installing additional monitoring for carbon monoxide, particulates and visibility at Morwell East. Results from these new monitoring systems will be made available as soon as possible.

When will air quality improve?

While progress has been made to extinguish the fire at the Hazelwood open cut mine, there are weeks of work ahead with a large emergency response contingency in place dedicated to this fire.

FURTHER INFORMATION

Bushfires and your health

Bushfires have the potential to cause a number of environmental health concerns beyond the immediate damage caused by the fire. For more information go to <http://www.health.vic.gov.au/environment/bushfires.htm>

Bushfires and air quality

Smoke from bushfires can lead to significant deterioration in air quality, with high concentrations of fine particles and reduced visibility being the main concerns. Bushfire smoke can have widespread impacts throughout summer, depending on fire and weather conditions. For more information go to <http://www.epa.vic.gov.au/your-environment/air/bushfires-and-air-quality>.

Air Quality

Over the past few days weather conditions have occasionally resulted in significant amounts of smoke being transported across Morwell, and to other areas of Latrobe Valley including Traralgon. Until the fire is out, similar weather conditions may occur again resulting in further smoke impacts. The EPA has commenced a program to assess the extent of the smoke impacts with mobile monitors.

What are the impacts of smoke from fires?

Smoke is a mixture of gases and fine particles produced by burning materials such as wood, coal or liquid fuels such as diesel. These can get into your eyes and respiratory system, where they can cause burning eyes, a sore throat and runny nose.

In healthy people these effects disappear quickly once the smoke has cleared. Those with respiratory or heart conditions (such as congestive heart failure, angina, chronic obstructive pulmonary disease, emphysema or asthma) are more sensitive to the effects of smoke. Exposure to smoke can aggravate their condition and sufferers may experience symptoms at lower smoke levels than healthy people. Children and the elderly may also be more sensitive to the effects of smoke.

Is the smoke toxic?

All smoke including bushfire smoke can be harmful for your health. A program of smoke analysis is being undertaken, but there is currently no reason to expect the smoke from the Hazelwood Mine to be significantly different from smoke from other coal sources. Anyone with concerns about their health should seek medical advice or call NURSE-ON-CALL on 1300 60 60 24.

How long will the smoke last?

During major fire events, smoke can be transported to our towns and cities and remain there for many days. EPA provides routine daily forecasts of air quality in Melbourne based on the latest weather predictions, taking into account the smoke from large fires.

During significant fire events, extra forecasts are also prepared for major populated areas, including Latrobe Valley, which are made available via the front page of EPA's website, <http://www.epa.vic.gov.au>. When significant impacts are expected, smoke advisory messages are published on EPA's website.

The Bureau of Meteorology also provides smoke forecasts for all Victoria towns, updated twice daily, available at www.bom.gov.au/vic/forecasts/towns.shtml.

What are normal Carbon Monoxide (CO) levels in the air?

Carbon monoxide (CO) levels in Melbourne and Latrobe Valley are normally very low compared levels that might result in significant health effects. CO levels have improved noticeably in the past 20 years as petrol car exhaust has become cleaner. The national standard for CO is 9 parts per million, measured as an 8-hour average, and typical measurements in Victoria are very much lower than this. Levels of carbon monoxide are usually higher in winter and lower in summer.

During a bushfire, carbon monoxide is generated and the effect can be seen on EPA instruments, although the effect is quite small. For example, during the severe December 2006 bushfire episode, the highest 8-hour average CO level in Melbourne was less than a third of the CO air quality standard, but the highest 24-hour PM10 level was more than four times the PM10 air quality standard. This shows that in a typical bushfire, particles are normally the pollutant of most concern.

Any large fire is capable of generating CO and the EPA is undertaking CO monitoring around Morwell to accurately assess the extent of any effects in the vicinity of the fire. This is normal procedure and it is being applied in this case, with extra emphasis and resources to make reliable and timely assessments. Emergency Services including the CFA are also undertaking CO monitoring using specialist equipment, and results are used to inform regular updates and safety advice for the community.

What can I do to protect myself?

Excessive smoke levels can not only aggravate existing heart or lung conditions, but may also cause members of the community to experience irritated eyes, coughing or wheezing.

Anyone with a heart or lung condition should take their medication as prescribed by their doctor while people with asthma should follow their asthma management plan.

When a low-level smoke advisory has been issued, the elderly, children and those with existing heart or lung conditions should limit prolonged or heavy physical activity.

When a high-level smoke advisory has been issued, everyone should avoid prolonged or heavy physical activity and keep informed about fire activity in their immediate area.