

VICTORIA'S AIR QUALITY – 2005

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OVERVIEW

Victoria's air was generally clean in 2005. While the air quality objectives were met for most pollutants, particle pollution continues to be an issue needing attention. Air quality was typically poorer on days when emissions were trapped in calm, highly stable air or when strong winds transported dust picked up from the ground.

In an international context Melbourne's air quality (compared to similar urban centres) remains relatively good. There has been little change in air quality over the last decade despite increasing pressures such as population growth.

Particles monitoring in 2005 showed:

- in Melbourne, there are still days when the visibility and particles objectives are not met. While bushfires and windblown dust were not as important as in some recent years, individual monitoring stations were affected by local sources of dust
- in Geelong, the objective for PM₁₀ (particles smaller than 10 micrometres) was exceeded less frequently than in 2004, and the visibility objective more frequently
- in the Latrobe Valley, the PM₁₀ objective was met. Performance against the visibility objective was similar to Melbourne

- in Ballarat there were some days when the visibility objective was not met
- in Bendigo there were days when the particles and visibility objectives were not met
- in Mildura windblown dust led to a large number of days when the particles objective was not met.

EPA Victoria is engaged in programs to further investigate and manage particle pollution across Victoria.

The Melbourne/Geelong region remains an area that will at times experience ozone episodes. In 2005 the ozone objectives were met except for a single day at one Melbourne station.

The air quality objectives were achieved for carbon monoxide, nitrogen dioxide and sulfur dioxide at all EPA monitoring stations in Victoria.

The 2008 national and State air quality goals were achieved, with the exception of visibility (at most sites) and PM₁₀ (at six out of 16 sites), as shown in Table 1.

Further information on Victoria's air quality can be found on EPA's website (www.epa.vic.gov.au/air).

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Table 1: Assessment of Victoria's air quality on a station-by-station basis

The numbers in the table indicate the number of days the objectives were not met.

Region	Station	Particles			Ozone		NO ₂	CO	SO ₂	
		Visibility	PM ₁₀	PM _{2.5}	1h	4h				
MELBOURNE	City	Richmond		1				0	0	
		RMIT	5	0		0	0	0	0	0
	East	Alphington	19	0	3	0	0	0	0	0
		Box Hill	10*	10		0	0	0	0	0
		Brighton	12	0		0	0	0		
		Dandenong	11	0		0	0	0		
		Eltham		6	9*	0*	0*	0*	0*	
		Moorooduc			.	0	0			
		Mooroolbark		9		0	0	0	0	
	West	Footscray	3*	0	2	0	0	0	0	0
		Melton				0	0			
		Paisley	7	3*		0	0	0		0
		Pt. Cook	2*			0	1	0		
Geelong	Geelong South	7	7		0	0	0	0	0	
	Pt. Henry				0	0				
Latrobe Valley	Moe	11	0		0	0	0		0	
	Traralgon	18*	0*		0*	0*	0*		0*	
Other Rural	Ballarat	5	0*		0*	0*	0*	0*		
	Bendigo	1*	2*		0*	0*	0*	0*		
	Mildura		24*							

0	Objectives and Goal met on all days.		Exceeded the objective but met the Goal.		Goal not met.
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* Compliance with the 2008 goal can only be demonstrated when a data capture target of at least 75% in each quarter is met. Monitoring not meeting this data capture target is indicated by an asterisk and where possible an assessment is made of whether it is likely that the goal would have been met. There is no 2008 goal for PM_{2.5}.

AIR QUALITY IN GENERAL

Why EPA monitors

EPA monitors air quality in order to ensure that the health and wellbeing of Victorians are maintained. Monitoring provides information for the community on the concentration of pollutants in the air. Monitoring also enables EPA to assess air quality relative to objectives, inform the development of air quality management strategies and evaluate the effectiveness of air quality management activities.

What EPA monitors

EPA monitors a range of pollutants specified in the National Environment Protection Measure (NEPM) for Ambient Air Quality:

- *Particles smaller than 10 micrometres (PM₁₀)* – these particles (less than one-tenth the width of a human hair) can exacerbate existing respiratory and cardiovascular disease. High levels can lead to increases in hospitalisations and premature death.

- *Particles smaller than 2.5 micrometres (PM_{2.5})* – these particles can penetrate deeply into the lungs.
- *Ozone (O₃)* – an oxidant that impacts on the respiratory system. Exposure to high levels of ozone can result in increases in asthma attacks and hospitalisations for heart and lung conditions.
- *Nitrogen dioxide (NO₂)* – this affects the respiratory system and the body's defence mechanisms. At high concentrations, this can lead to increases in hospitalisations and respiratory infection, particularly in children.
- *Carbon monoxide (CO)* – a gas readily absorbed into the bloodstream that affects transport of oxygen through the body. People suffering from cardiovascular disease are particularly sensitive.
- *Sulfur dioxide (SO₂)* – an irritant gas that affects the respiratory system at high concentrations. Asthmatics are particularly sensitive to sulfur dioxide.

Lead, a constituent of airborne particles, for which long-term exposure can affect development in children, is also specified in the Measure.

Monitoring of lead in Melbourne has been discontinued because the levels are so low (now that leaded petrol is no longer used).

These pollutants are monitored because of their health effects.

Victoria's *State Environment Protection Policy (Ambient Air Quality)*, which is consistent with the National Measure, also specifies monitoring for:

- *visibility-reducing particles* – these particles reduce visual distance and aesthetic enjoyment.

Assessments against the objective for visibility-reducing particles are based on light-scattering measurements.

Recent studies by EPA have concentrated on airborne particles and the air toxics specified in the National Environment Protection Measure for Air Toxics (benzene, polycyclic aromatic hydrocarbons, formaldehyde, toluene and xylenes).

How does EPA assess the air monitoring results?

Air quality for 2005 has been assessed against the national and state *objectives* and *goals*. *Objectives* are concentrations, in parts per million (ppm) or micrograms per cubic metre (µg/m³), against which air quality can be assessed.

The *goals* specify a maximum permissible number of days per year when the objectives can be exceeded and a timeframe in which this goal must be met (by 2008). The goals guide the formulation of strategies for the management of human activities that may affect the environment. The objectives and 2008 goals for the pollutants are shown in Table 2. Each monitoring site is assessed against these objectives and goals.

The NEPM specifies advisory reporting standards for PM_{2.5}, with a daily (25µg/m³) and annual (8µg/m³) objective. EPA is monitoring PM_{2.5} to collect data that will enable a review of the NEPM (this review commenced in 2005).

As well as assessing air quality against the objectives and goals, EPA uses an air quality pollutant index defined as the maximum pollutant level on a day as a percentage of the objective.

Table 2: State and national air quality objectives and goals

Pollutant	Averaging period	Objective	2008 goal days exceeded
Visibility-reducing particles	1 hour	20 km	3 days a year
Particles as PM ₁₀	1 day	50 µg/m ³	5 days a year
Ozone	1 hour	0.10 ppm	1 day a year
	4 hours	0.08 ppm	1 day a year
Carbon monoxide	8 hours	9.0 ppm	1 day a year
Nitrogen dioxide	1 hour	0.12 ppm	1 day a year
	1 year	0.03 ppm	none
Sulfur dioxide	1 hour	0.20 ppm	1 day a year
	1 day	0.08 ppm	1 day a year
	1 year	0.02 ppm	none
Lead	1 year	0.50 µg/m ³	none

The indices are classified in one of five colour-coded categories, ranging from Very Good to Very Poor (see Table 3). Days of Poor or Very Poor air quality occur when the highest pollution level on that day exceeds the relevant objective. Days with Very Good, Good or Fair air quality comply with the objective. The percentage of days in each category during 2005 is presented in graphs such as Figure 3. The average (across all monitoring stations) percentage of days in the Very Good/Good/Fair categories is used as a regional measure of compliance with the objective.

Trends in air quality over a number of years can indicate whether the situation is improving or not. Comparisons have limitations because different stations operate from year to year, and weather patterns can vary dramatically. In this report, regional trends have been reported in two ways:

Table 3: EPA pollutant index

Category	Index range	Colour code
Very Good	0–33	
Good	34–66	
Fair	67–99	
Poor	100–149	
Very Poor	150+	

- the maximum number of days per year that any individual station in a region does not meet an air quality objective (for example, Figure 4). This may occur at different stations each year. Also, in the case of Figure 4, the average number of such days in the region is included
- annual maximums, defined as the average of the maximum pollutant concentrations recorded at all stations in a region (for example, Figure 10). These maximums are expressed as a percentage of the corresponding air quality objective.

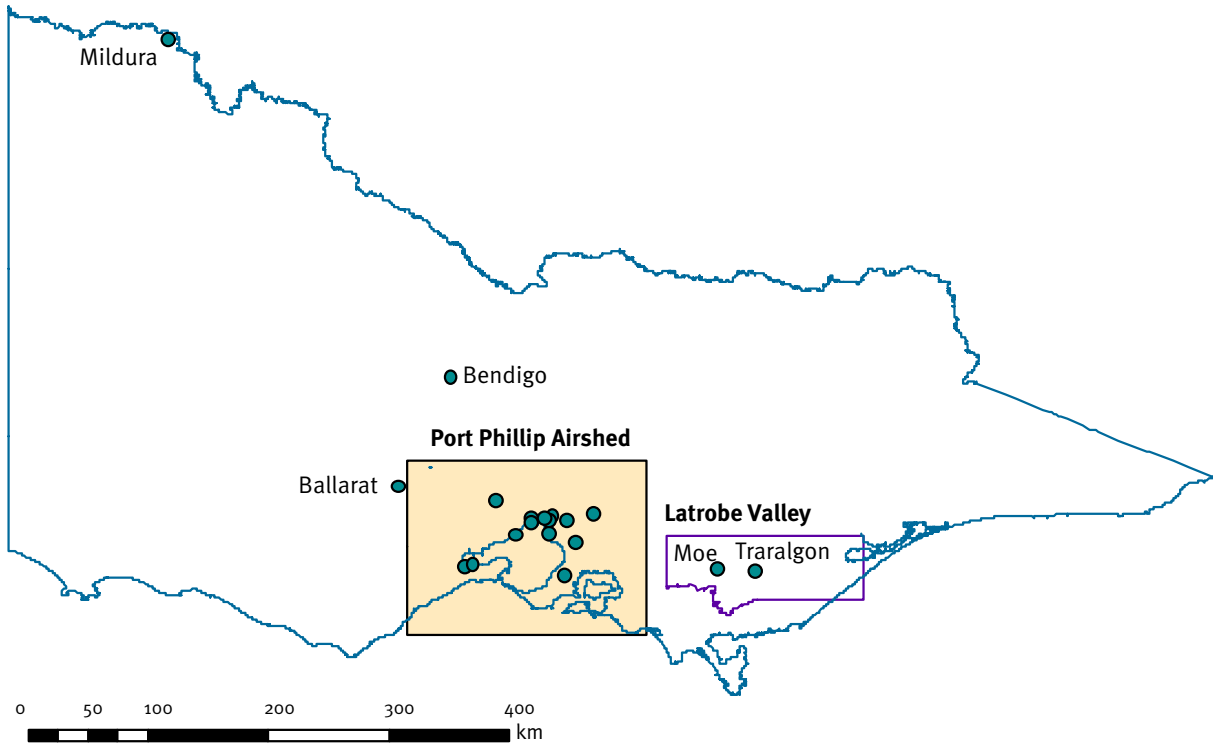
Where EPA monitors

In 2005, EPA's air monitoring program recorded representative air quality measurements (see Table 1) from 20 sites (both permanent and short-term), with:

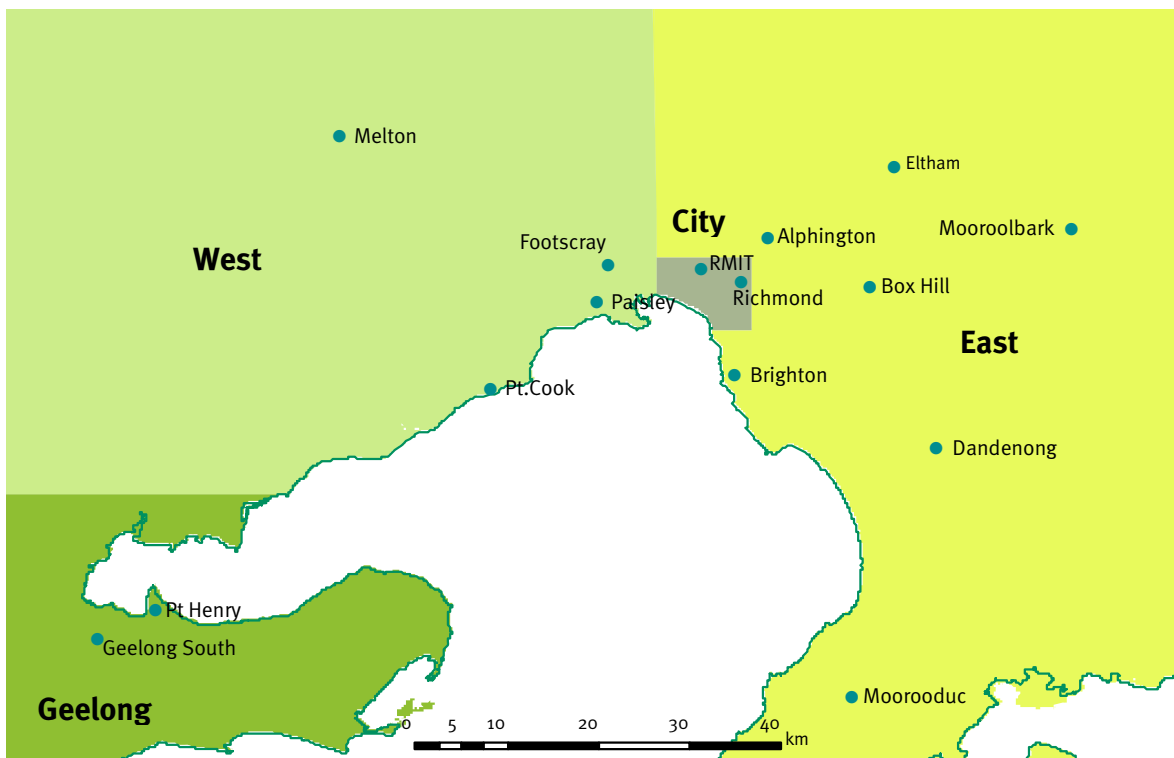
- 13 in metropolitan Melbourne (stations are assigned to regions in the City, East and West – see Figure 1)
- two in Geelong
- two in the Latrobe Valley
- three other sites in country Victoria (Ballarat, Bendigo and Mildura).

The locations of all monitoring stations are shown in Figure 1.

VICTORIA'S AIR QUALITY – 2005



a) Air monitoring stations across Victoria



b) Air monitoring stations in the Port Phillip airshed

Figure 1: EPA air monitoring stations in 2005

Industry monitoring

In addition to the air quality monitoring performed by EPA, monitoring is conducted for common pollutants by major industries licensed by EPA, including: electricity generators in the Latrobe Valley and at Anglesea, aluminium smelters at Geelong and Portland, and an oil refinery at Corio. More information is available from EPA regional offices (contact details are at www.epa.vic.gov.au/neighbourhood/offices).

Upgrading the network

A significant upgrade of EPA's air monitoring network commenced in 2005. Over a three-year period, most of the monitoring stations will be refitted with new instruments and enclosures as the older equipment reaches the end of its useful life. During 2005, stations were upgraded at Dandenong, Melton and Traralgon (Figure 2).



Figure 2: The upgraded Traralgon air monitoring station

As part of the upgrade, new permanent monitoring stations are to be located in the northwest (Deer Park) and northern suburbs (location yet to be determined) of Melbourne. Alphington and Footscray will become premier monitoring sites (covering inner east and west suburbs), where some

of EPA's special-purpose equipment will be concentrated.

During 2005 EPA continued to develop the air monitoring network, with:

- a mobile air monitoring station located at Bendigo from May 2004 to July 2005
- monitoring for ozone at Moorooduc from December 2004
- monitoring for PM₁₀ at Mildura from December 2004
- a mobile monitoring station located at Eltham for 12 months from April 2005
- a mobile air monitoring station located at Ballarat for 12 months from July 2005.

As part of an overall upgrade of the monitoring network EPA has also decided to increase the number of stations continuously monitoring PM₁₀ using an instrument known as a tapered element oscillating microbalance (TEOM). Intermittent (one day in six) monitoring using an older type of instrument called the high-volume sampler will be reduced, whilst the PM₁₀ network will expand over the next few years. Most PM₁₀ monitoring is already done with TEOMs and the two methods give equivalent results.

AIR QUALITY IN 2005

A summary of Victoria's performance against the national and state air quality objectives and goals is shown in Table 1. Details of monitored pollution levels can be found on EPA's website at www.epa.vic.gov.au/air/air_monitoring_report_2005, along with a report assessing Victoria's performance against the requirements of the Ambient Air Quality NEPM. Results from EPA's air monitoring network are presented below for Melbourne, Geelong, the Latrobe Valley and other regional centres.

Air quality in Melbourne

Summary

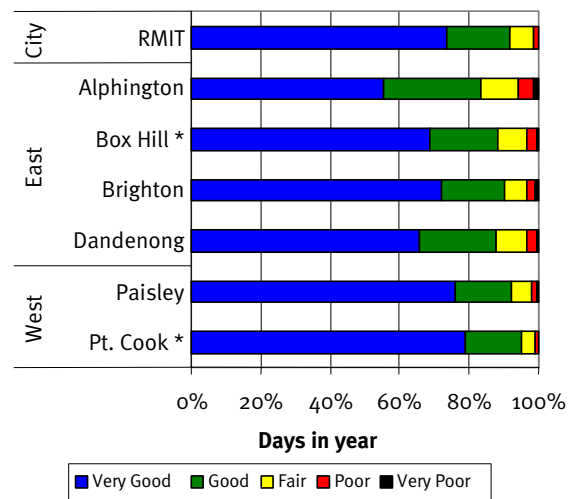
Air quality in Melbourne was generally good in 2005. Visibility and particles continue to need attention. Performance against the air quality objectives is summarised below.

- *Visibility* – there were days at all stations when the objective was not met, particularly in autumn and winter.
- *Particles as PM₁₀* – half of Melbourne's monitoring stations met the objective. Several of the others were affected by local sources.
- *Particles as PM_{2.5}* – there were days at the three stations monitoring PM_{2.5} when the daily reporting standard was not met.
- *Ozone* – All stations met the objectives except Point Cook, which reported a single day in March just above the four-hour ozone objective.
- *Carbon monoxide, nitrogen dioxide, and sulfur dioxide* – these continue to meet the objectives.

Visibility

Visibility remains an issue in Melbourne. In 2005, visibility was worst in autumn and winter, when overnight emissions from sources such as wood heaters and open fires contributed significantly to elevated particle levels during stable atmospheric conditions.

Visibility at Melbourne stations is shown in Figure 3, according to EPA's air quality index (defined on pages 3 and 4). Visibility complied with the objective on 97 per cent of days in 2005.



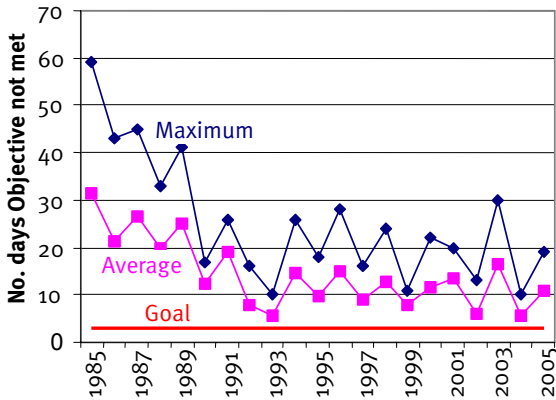
* Annual data capture below 75%.

Figure 3: Air quality index for visibility in Melbourne

The number of days not meeting the visibility objective at each station is shown in Table 1. In 2005 the objective was not met on up to 19 days (compared to 10 in 2004), with the increase occurring mainly in the East. In 2004 the weather during autumn and winter was windier than usual, resulting in relatively good visibility in 2004.

There has not been a significant change in visibility levels during the last 10 years, following a significant improvement in the previous decade (see Figure 4). Maximum and average visibility levels for

2005 were similar to those of the last decade (with the exception of 2003, which had higher readings because of major bushfires).

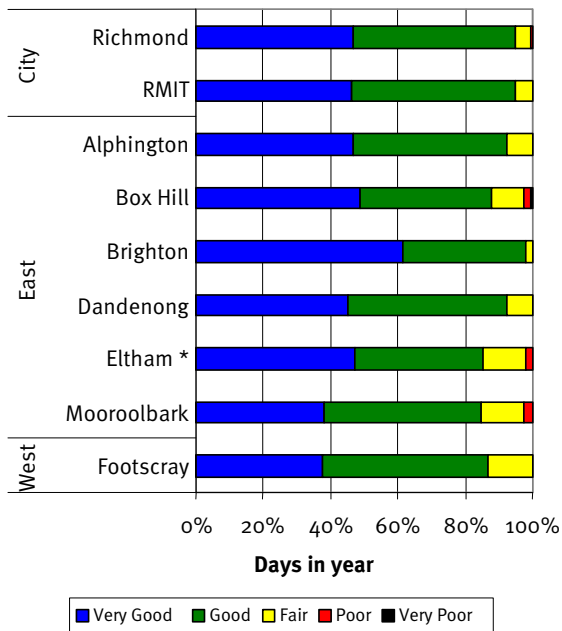


Maximum and average number of days stations did not meet the objective

Figure 4: Visibility trend in Melbourne

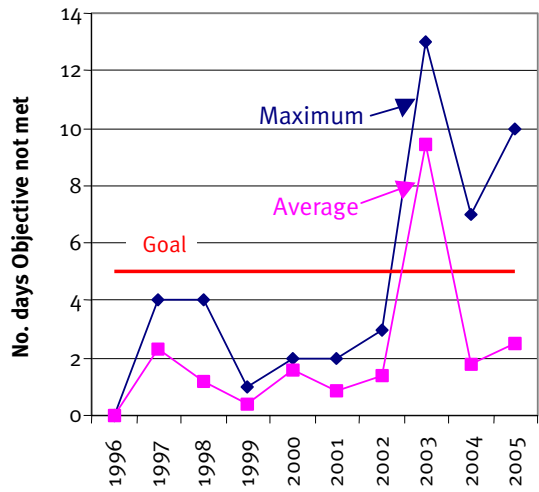
Particles as PM₁₀

The air quality index for PM₁₀ at Melbourne stations in 2005 is shown in Figure 5. PM₁₀ complied with the air quality objective on 99 per cent of days.



* Annual data capture below 75%.

Figure 5: Air quality index for PM₁₀ in Melbourne



Maximum and average number of days an individual station did not meet the objective

Figure 6: PM₁₀ trend in Melbourne

Five of the 10 stations monitoring PM₁₀ met the objective (compared with three out of 10 in 2004). Individual stations were affected by earthworks, as was the case in 2004 (Figure 6). The days when results were above the objective have been analysed:

- Box Hill was influenced by dust from construction work adjacent to the station. This was also the case in 2004. EPA issued a notice requiring dust control measures at the construction site and no breaches were recorded after May 2005.
- Eltham, a one-year station established in April 2005, experienced dust-related PM₁₀. Full results from this study will be reported later in 2006.
- Mooroolbark's high levels were found to be due to the accumulation of local emissions in stable air overnight, sometimes added to by traffic emissions during the day. This is to be expected, given the location of the station within a valley.

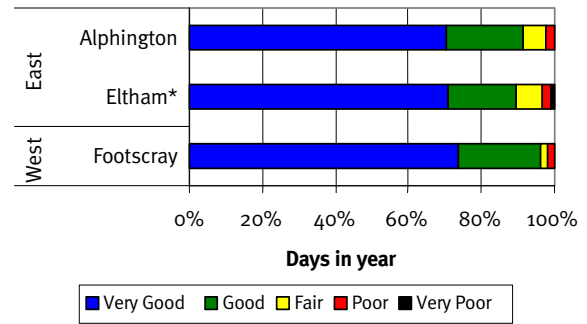
- Paisley monitored PM₁₀ on every sixth day. Its ability to detect the highest readings is therefore limited. However, three high readings occurred when the station was affected by nearby construction works. These isolated readings were atypical – in the past 10 years PM₁₀ at Paisley has been high only when particle pollution was widespread.

Excluding the effect of bushfires and construction work, over the last nine years there has been little change in the number of days the objective has not been met (see Figure 6, noting that for most of 1996 only one station monitored PM₁₀ continuously). Average and maximum levels of PM₁₀ have also shown no trend and in 2005 were similar to 2004.

Particles as PM_{2.5}

EPA also monitored particles as PM_{2.5} at Alphington and Footscray every third day and at Eltham every day from April. The daily PM_{2.5} advisory reporting standard was exceeded at each station, as shown in Table 1, compared with only one day in 2004 (at Alphington; Eltham was not operating in 2004). The annual reporting standard was marginally exceeded at Alphington. PM_{2.5} levels complied with the reporting standard on 97 per cent of days – Figure 7.

High PM_{2.5} tends to occur on the same days as poor visibility (this is expected, as fine particles reduce visibility). As mentioned above, 2004 was relatively windy and it is likely that PM_{2.5} in 2005 was more typical, as all the high values occurred in poor dispersion conditions. Eltham was chosen as an area with high PM_{2.5} wood heater emissions and all nine days at Eltham occurred in June, when wood heaters were in use.



* Annual data capture below 75%.

Figure 7: Air quality index for PM_{2.5} in Melbourne

Ozone

During the hotter months, ozone building up over Port Phillip Bay can be transported across Melbourne by sea breezes. In 2005 this caused the four-hour objective to be exceeded by two per cent on one day, at Point Cook (other stations met the four-hour objective). In addition, all stations met the one-hour objective. Figure 8 shows the annual

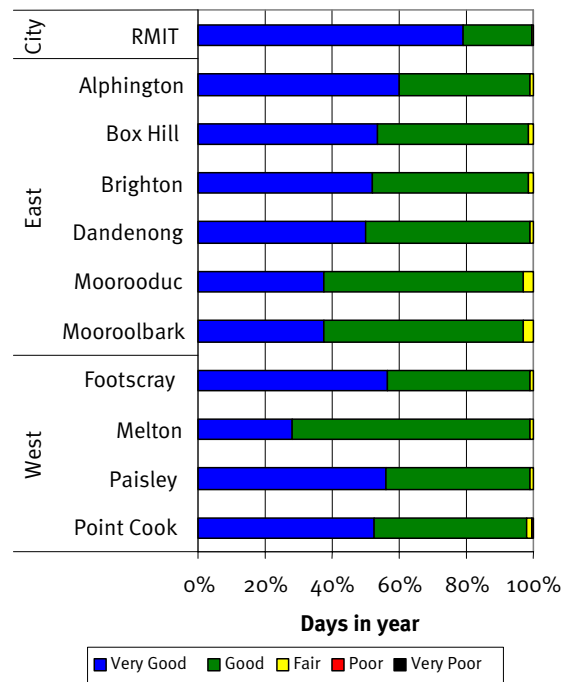
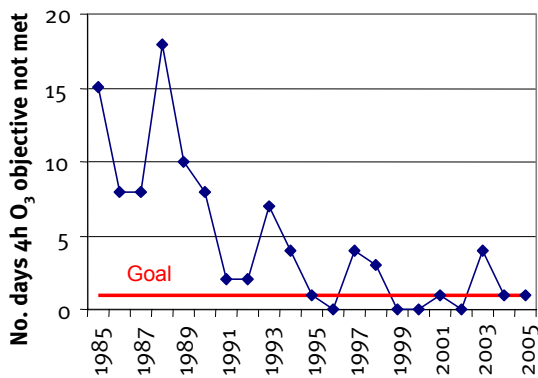


Figure 8: Air quality index for four-hour ozone in Melbourne

breakdown of the four-hour ozone air quality index at each Melbourne station.

Days with ozone levels higher than the objective are now much less common than they were in the 1980s, although bushfires caused a peak in 2003 (see Figures 9 and 10) and maximum concentrations are tending to decline (Figure 10). The objective for four-hour averages is presented in Figures 9 and 10. The one-hour objective is less stringent.



Maximum number of days an individual station did not meet the objective

Figure 9: Four-hour ozone trend in Melbourne

To better understand ozone behaviour in Melbourne, EPA has undertaken additional campaigns at Pakenham, Craigieburn and Moorooduc in the past four years. Further ozone monitoring occurred at Eltham over the 2005–06 summer and will commence at Deer Park in mid-2006.

Other pollutants

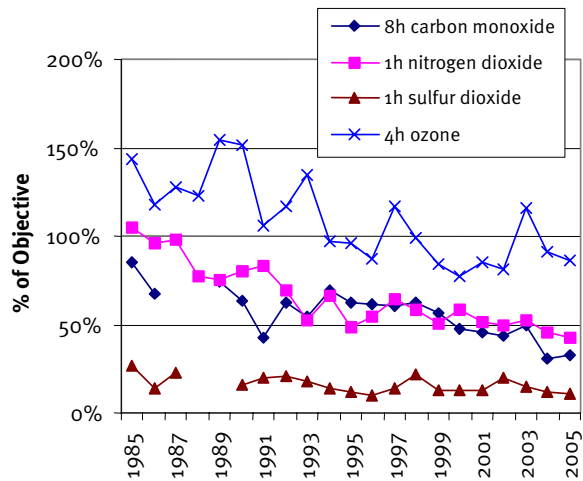
Motor vehicles remain a large source of pollutants, accounting for around 75 per cent of emissions of oxides of nitrogen and carbon monoxide in the Melbourne–Geelong region. Despite motor vehicle usage increasing on a year-to-year basis, improvements in fuel standards and vehicle

performance have resulted in an overall improvement in nitrogen dioxide and carbon monoxide levels.

Sulfur dioxide levels in Melbourne are very low, except where influenced by specific industrial sources, and have not increased over the years.

Figure 10 shows that levels of carbon monoxide, nitrogen dioxide and sulfur dioxide in Melbourne are well below the relevant objectives. The averages of the annual maximums at Melbourne monitoring stations are plotted. Only stations with at least 75 per cent of the year's data are included.

Air toxics were monitored at Eltham, an area where wood heater use is common. None of the levels exceeded the national monitoring investigation levels. A full report will be published on completion of monitoring in 2006.



Average of annual maximums at Melbourne stations

Figure 10: Trend of maximum readings

Air quality in Geelong

Summary

Air quality in Geelong was generally good in 2005, with the exception of particles (see Figure 11 for summary).

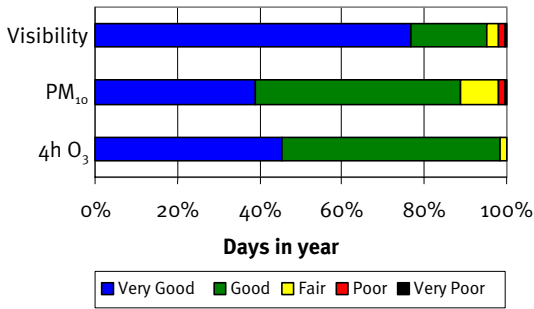


Figure 11: Air quality index for Geelong

Performance against the air quality objectives was as follows:

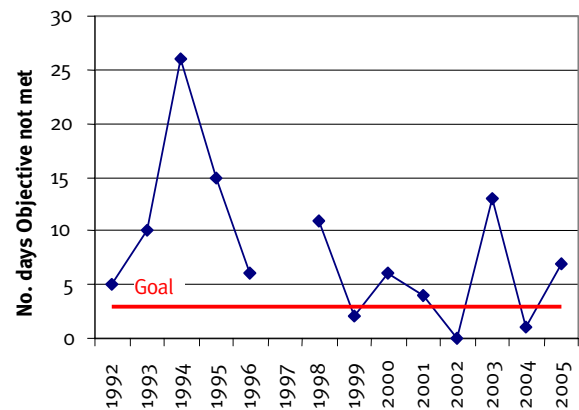
- *Visibility* – seven days did not meet the visibility objective.
- *Particles as PM₁₀* – the objective was not met on seven days, most of them due to windblown dust.
- *Ozone* – both stations met the objectives throughout the year.
- *Carbon monoxide, nitrogen dioxide, sulfur dioxide* – continued to meet the objectives.

Visibility

In 2005, seven days did not meet the visibility objective, compared to only one day in 2004. These seven days were relatively close to the objective, apart from one day, believed to have been influenced by earthworks near the monitoring station. As a consequence, the visibility goal was not met in Geelong (the goal is no more than three

days not meeting the objective). Visibility levels met the objective on 98 per cent of days (Figure 11).

The number of days exceeding the objective at Geelong (seven) lies within the range at Melbourne monitoring stations (zero to 19). Five of the poor visibility days occurred in autumn. Annual average visibility at Geelong is better than at most Melbourne stations. There is little evidence of a change in visibility levels in Geelong over the last 10 years (Figure 12).



Visibility was not monitored at Geelong in 1997

Figure 12: Visibility trend in Geelong

Particles as PM₁₀

In 2005, the Geelong South station recorded seven days on which the PM₁₀ objective was not met. Five of these days were due to windblown dust and two winter days had poor dispersion conditions. For comparison, in 2003 and 2004 the objective was not met on 10 and 11 days, respectively.

In 2005 the annual average PM₁₀ recorded at Geelong was 10 per cent higher than at most Melbourne stations. PM₁₀ levels met the objective on 98 per cent of days, similarly to Melbourne (Figure 11).

Ozone

The one-hour and four-hour objectives were met at both the Geelong South and Point Henry stations throughout 2005. Figure 11 shows the average of the ozone pollutant index from the two stations for four-hour ozone.

Historically, ozone levels have been above the objectives less frequently than in Melbourne. Average levels in Geelong are similar to those for Melbourne stations. The ozone goals have been met for the last ten years.

Other monitoring

Annual average carbon monoxide and nitrogen dioxide levels in Geelong were about 30 and 60 per cent of the Melbourne averages, reflecting lower motor vehicle traffic densities. Annual average sulfur dioxide in Geelong South was seven per cent of the objective, compared with four per cent in Melbourne. Sulfur dioxide is emitted mainly by large industries.

Air quality close to an industrial area in Corio was also monitored to provide real-time feedback about pollution levels, including hydrocarbons. Studies completed in 2005 indicated that average levels of benzene in Corio are similar to levels in Melbourne and lower than those found beside busy roads. A report on this work is cited under *Related Publications* below.

Air quality in the Latrobe Valley

Summary

Air quality in the Latrobe Valley was generally good in 2005. Performance against the air quality objectives is summarised below.

- *Visibility* – there were days when the objective was not met.
- *Particles as PM₁₀* – the objective was met throughout the year.
- *Ozone, nitrogen dioxide and sulfur dioxide* – these continue to meet the objectives.

Additional details of industry-operated air quality monitoring in the Latrobe Valley are included in annual reports prepared for the Latrobe Valley Air Monitoring Network.

Visibility

Visibility was the main issue in the Latrobe Valley in 2005. The visibility objective was not met on 11 and 18 days respectively at Moe and Traralgon. Visibility was worst in autumn and winter, when wood heater emissions and fuel reduction burning were adding to traffic and industrial emissions.

In 2005 visibility in the Latrobe Valley was poorer than that monitored at most Melbourne sites. Visibility met the objective on 96 per cent of days (see Figure 13).

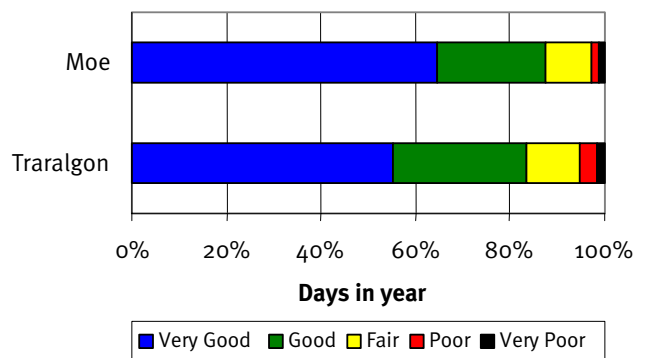
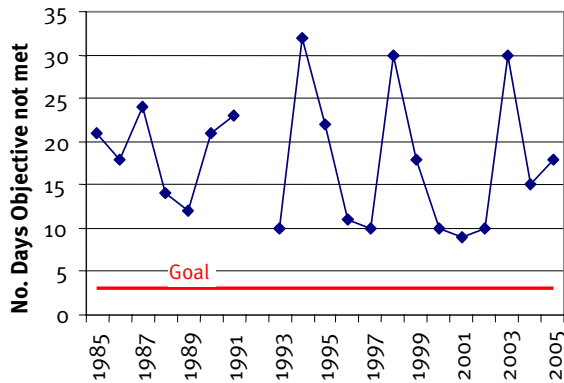


Figure 13: Air quality index for visibility in the Latrobe Valley

The number of days not meeting the visibility objective in 2005 is typical of recent years (Figure 14) and similar to Melbourne in 2005.



Maximum number of days an individual station did not meet the objective

Figure 14: Visibility trend in the Latrobe Valley

Particles as PM₁₀

PM₁₀ monitored at Moe and Traralgon met the objective every day in 2005. PM₁₀ levels were lower than in Melbourne. Figure 15 shows the annual breakdown of the PM₁₀ air quality index at Moe and Traralgon.

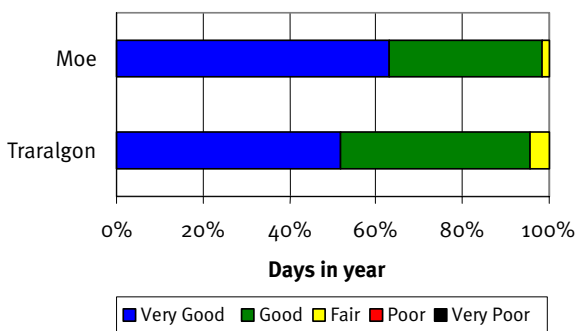


Figure 15: Air quality index for PM₁₀ in the Latrobe Valley

Other monitoring

Ozone, nitrogen dioxide and sulfur dioxide met the objective levels in the Latrobe Valley. Maximum ozone levels remained lower than in Melbourne, at around two-thirds of the objectives. Annual averages of nitrogen dioxide and sulfur dioxide were 25 per cent and seven per cent of the annual objectives.

Air quality in other regional centres

Bendigo

The Bendigo station monitored visibility, PM₁₀, carbon monoxide, ozone and nitrogen dioxide from May 2004 to July 2005. Results are presented in Figure 16 for the 14-month period of monitoring. During this period air quality objectives were met except for particles (as PM₁₀) on three days and visibility on one day. Carbon monoxide and nitrogen dioxide met the objectives at all times.

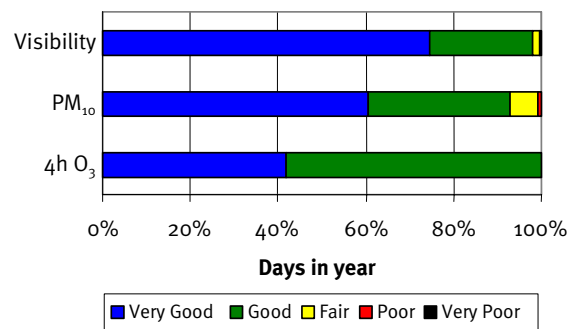


Figure 16: Air quality index for Bendigo (2004–05)

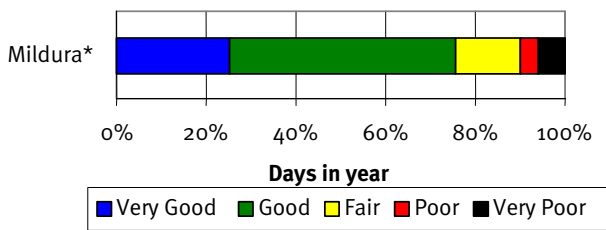
Bendigo's air quality is generally similar to or better than other monitored regions in Victoria. A full report on results from the Bendigo monitoring has been prepared (see *Related Publications* at the end of this report).

Ballarat

The Ballarat station monitored visibility, PM₁₀, carbon monoxide, ozone and nitrogen dioxide, commencing July 2005. All pollutants met the objective levels, except for visibility, which did not meet the objective on five days (in August to October). Results from Ballarat will be reported after the full year's monitoring.

Mildura

Particles (as PM₁₀) were monitored at Mildura throughout 2005. On 90 per cent of days the PM₁₀ objective was met (Figure 17). As a result of frequent windborne dust storms, the objective was not met on 24 days. An interim report was issued in July 2005 on Mildura monitoring, with a full report to be issued on completion of monitoring in mid-2006.



* Annual data capture below 75%.

Figure 17: Air quality index for PM₁₀ at Mildura

SUMMARY OF THE YEAR'S AIR QUALITY

While Victoria's air quality is considered good in an international context, the 2005 monitoring results highlight the impact of particles. Days when the particles objectives were not met (visibility, PM₁₀ and PM_{2.5}) have been attributed mainly to:

- *dust*, whether due to dust storms caused by wind changes or construction activities in localised areas close to the monitoring station
- or
- *smoke*, in poor dispersion conditions, when pollutants from motor vehicles, wood fires and burning off are trapped near the ground, typically on cold, calm nights.

Of all the pollutants, particles are the most complex to understand, with a variety of sources and characteristics. EPA is undertaking a range of projects to improve our ability to better manage particle pollution across Victoria.

HOW CAN I FIND FURTHER INFORMATION ON VICTORIA'S AIR QUALITY?

Daily air quality data and forecasts are made available to the public in a number of ways:

- EPA's website summarises air quality monitoring data for the previous hour, day and week (www.epa.vic.gov.au/air/bulletins).
- A forecast of the air quality index is issued daily via the website, Melbourne daily newspapers, radio and television (Figure 18).
- Air quality for the previous 24 hours is summarised in a bulletin that is updated twice a day on the website (www.epa.vic.gov.au/air/bulletins/bulletin_t.asp).
- The air quality bulletin is issued on a daily basis to electronic media outlets and summarised on EPA's Pollution Watch Line (phone 03 9695 2777).



Air Quality Report issued on Friday 24 Mar 2006

Friday's Air Quality		
Region		Air Quality Summary*
Melbourne	East	GOOD
	West	FAIR
	City	GOOD
Geelong		GOOD

* For 24 hours from 3 pm (23 Mar 06) to 3 pm (24 Mar 06)

Forecast for Saturday (25 Mar 2006)
GOOD to FAIR

Figure 18: Newspaper bulletin and forecast

- Air pollution information and historical data are available from the Air Quality for Kids page on the website (www.epa.vic.gov.au/air/AQ4Kids).
- On expected high pollution days, a smog alert is issued to the media, with advice on precautions the public can take to protect their health.

The following additional information is available from www.epa.vic.gov.au/air.

- Tables of air quality data for 2005.
- Annual monitoring reports and data tables from past years.
- The EPA air quality index. Definition and method of calculation of the index.
- Air quality bulletins and forecasts.
- Air Quality for Kids is designed for students and is a window into EPA's database of air quality measurements.

- AirWatch Victoria is a free service which offers a range of resources to support schools in teaching and learning about environmental issues.

RELATED PUBLICATIONS

The following publications are accessible through the EPA website, www.epa.vic.gov.au, by clicking on 'Publications & Legislation' at the homepage.

- *Air monitoring report 2005: Compliance with the National Environment Protection (Ambient Air Quality) Measure*, EPA publication 1045, 2006. Includes more detailed data tables and statistics on much of the information in this report.
- *Ambient air quality NEPM monitoring plan Victoria*, EPA publication 763, 2001. Details Victoria's commitments for monitoring under the National Environment Protection Measure.

VICTORIA'S AIR QUALITY – 2005

- *State Environment Protection Policy (Ambient Air Quality)*, Victoria Government Gazette No. S19, 09/02/1999 (amended in December 2001). Sets air quality objectives and broad monitoring protocol.
- *State Environment Protection Policy (Air Quality Management)*, Victoria Government Gazette No. S240, 21/12/2001. Establishes the framework for managing emissions into the air from all sources so that the air quality objectives are met.
- *Air monitoring alongside the Westgate Freeway in Brooklyn – March to November 2004*, EPA publication 974, 2005.
- *Ozone monitoring at Craigieburn, September 2003 to June 2004*, EPA publication 1003, 2005.
- *Airborne particle monitoring at Mildura, December 2004 to May 2005 – interim report*, EPA publication 1004, 2005.
- *Review of air quality near EastLink*, EPA publication 1006, 2005
- *Air monitoring in Corio 2003–05*, EPA publication 1022, 2006.
- *Review of air quality near major roads*, EPA publication 1025, 2006.
- *Air monitoring at Bendigo, May 2004 to July 2005*, EPA publication 1041, 2006.