



# project factsheet

July 2009

## Managing Construction Impacts – Air Quality and Dust

The Sugarloaf Pipeline Alliance is committed to maintaining air quality around construction areas by minimising the amount of dust produced by pipeline construction activities.

This fact sheet explains how air quality will be monitored and what actions will be taken to keep dust levels to a minimum.

### Monitoring air quality

A number of factors affect air quality. The Sugarloaf Pipeline Alliance has identified the potential for dust to be generated from construction activities such as excavation activities, earthworks and vehicle movements that could affect air quality in and around the construction zone.

The Alliance has put a monitoring program in place throughout construction to measure dust levels at key locations within the construction zone. We monitor both dust-in-air concentration and deposited dust.

Dust levels are measured along the entire Sugarloaf Pipeline alignment using:

- a dust monitor that draws surrounding air in to a sensor chamber. Results are recorded on a website and if levels reach a certain point an alarm sounds and the Alliance environmental team is alerted. All alarms are investigated and corrective action taken.
- on-site PM<sup>10</sup> monitoring, in accordance with Australian standards
- 15 dust deposit gauges have been placed along the pipeline's construction corridor to measure dust being deposited in a particular area. Each is monitored regularly.

### What is PM<sup>10</sup>?

PM<sup>10</sup> refers to fine air particles (particulate matter) with a diameter of less than 10 microns (10 millionths of a metre) – for comparison, a human hair is about 100 microns thick.



A dust deposit gauge on the alignment

The size of the dust particle is the main determinant of where the particle will come to rest when inhaled. PM<sup>10</sup> or smaller particles are monitored to protect human health.



Particular attention is focussed on such sensitive areas as:

- residential premises
- schools
- clinics and hospitals
- sports grounds
- more densely populated areas (eg, Yea and Yarra Glen townships)
- wetlands
- some flora (eg, vineyards and other plantations such as olive trees).

Prior to work commencing in a new area, resident will be alerted via a works bulletin distributed via letter boxes.

All works bulletins advise residents of the Project Information Line (1800 453 753) and we encourage community members to report off-site dust impacts they believe may have been caused by the Sugarloaf Pipeline Alliance. All incidents will be recorded and referred to the Alliance's environmental team for investigation.

### Targets for air quality and dust

While there are no specific standards for air emissions from construction activity, the Sugarloaf Pipeline Alliance has adopted the principles found in EPA Victoria's guidelines (the limit being four grams per metre squared for dust deposition or not more than two grams per metre squared above background measured levels).

In addition to this requirement the following targets have been set for managing dust levels by the Alliance:

- maintain an average of no more than 0.06 milligrams per cubic metre for any 24-hour period, PM<sup>10</sup> for ambient dust levels
- take action to reduce dust when monthly levels reach 4g per m<sup>2</sup> for deposited dust
- respond promptly to confirmed incidents of dust problems.

### Managing dust levels

The Alliance has procedures to minimise dust generated from construction activities. Our aim is to eliminate the sources of dust on-site. We are also particularly sensitive to avoiding impacts on viticultural crops.

Each Environmental Management Plan (EMP) identifies specific measures for avoiding air quality impacts. Some measures that will be used to minimise dust include:

- watering areas of earthworks
- having water carts on standby on hot and windy days
- covering truck loads
- wherever possible, planning topsoil stripping and grading on days when wind conditions are less likely to carry dust toward sensitive areas

- minimising the time between stripping topsoil and commencing excavation
- limiting speed on and/or using crushed rock to pave long-term haulage routes
- application of dust suppressants on public roads.

### Further information

Specific measures to manage the impact of construction on air quality within each section of the pipeline route are contained within the EMPs, which can be viewed on the Sugarloaf Pipeline website.

For legislation, guidelines and other publications relating to air quality see:

- *Environment Protection Act 1970* (Vic)
- *State Environment Protection Policy (Air Quality Management)*
- *Environmental Guidelines for Major Construction Sites – Best Practice Environmental Management* (EPA publication 480)
- *Protocol for Environmental Management: State Environment Protection Policy (SEPP) – Air Quality Management. Mining and Extractive Industries* (EPA publication 1191)