

## BRICKWORKS ENVIRONMENTAL REVIEW – UPDATE No 2 – December 2002

This newsletter provides an update on how the Department of Environmental Protection (DEP) is dealing with air quality issues connected with brick manufacturing in the Swan Valley. An earlier newsletter, dated November 2002, is available on the DEP website at <http://www.environ.wa.gov.au>.

### Monitoring campaign about to start

In the first part of its air quality review, the DEP analysed information contained in its pollution complaints database and conducted targeted interviews with people who felt they had been, or could be, affected by air quality in the Swan / Helena Valleys. The people we interviewed and others who lodged air quality reports often expressed doubt or concern about the amount of local air quality data available to DEP. Commonly expressed concerns included:

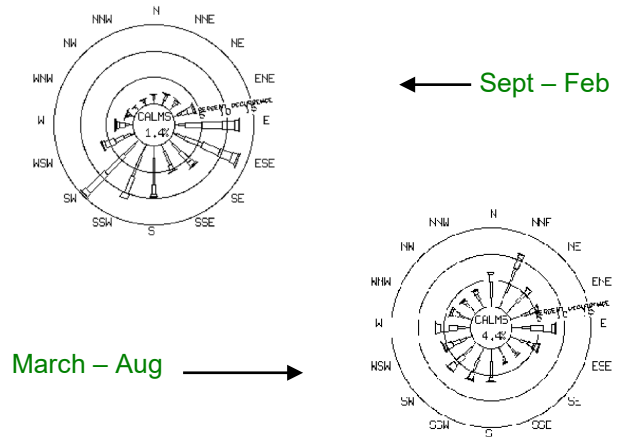
- The range of substances tested for is inadequate
- Testing should be continuous, not intermittent
- Averaging periods used for ambient monitoring are too long
- Meteorological data from the DEP monitoring site at Caversham may not reflect localised wind patterns and other atmospheric conditions in the Swan Valley

An air quality monitoring programme is planned for the December / January period. The programme has been designed to reflect concerns expressed by the community.

### Where will the monitoring be done?

A monitoring station will be established at a secure location in the Midland Saleyards, near Military Road, Bellevue. The monitoring station will be located approximately 200 metres northeast of the nearest brickworks chimney stack. This location has been selected for a number of reasons, the most important of which relates to prevailing wind conditions (see Figure 1).

Respondents to DEP's survey said that brickworks odour in the Bellevue and Hazelmere areas was generally more of a problem in the summer, while respondents from Viveash, Middle Swan and West Midland reported that odour problems seemed more related to the occurrence of calm or light winds. From this information, it appears that the best time to monitor in Viveash, Middle Swan and West Midland would be in autumn or early winter, while the best time to monitor in Bellevue and Hazelmere would be in spring or summer.



**Figure 1.** Windroses show dominant southeasterly and southwesterly winds in spring and summer and more frequent calm conditions in autumn and winter.

### What type of testing will be done?

The ambient air monitoring programme will include:

- Continuous monitoring for acid gases, with results averaged approximately every 3 minutes
- Continuous monitoring of airborne particulates (dust), and recording of total particulates, PM10 and PM2.5 (respirable dust)
- Sampling of fine particulates (PM10) for each 24 hour period, with subsequent laboratory analysis of selected samples
- Daily measurement of ammonia and sulphur dioxide, using diffusion tubes
- Screening for odourous organic vapours
- Establishment of a meteorological station near the Bellevue brickworks to measure local weather parameters such as wind direction, wind speed, temperature and humidity

The tests listed above are in addition to the normal hydrogen fluoride monitoring currently required of companies under their DEP licences. During the time of the ambient air monitoring programme information about brickworks air emissions will also be collected.

### Volunteers required!

An important part of the monitoring campaign is collecting observations about air quality to correlate with the measurements being made at the Bellevue site. The DEP is seeking volunteers who are willing to keep observation diaries during the period 20 December to 20 January 2003. We are especially

eager to hear from people who live or work in Bellevue, Hazelmere, Koongamia, Midland, Midvale, and Woodbridge. It isn't hard to keep a diary - a sample diary page is shown in Figure 2.

If you are willing to participate, please ring Lisa Chandler on 9222 7039 or e-mail her on [chandll@environ.wa.gov.au](mailto:chandll@environ.wa.gov.au). You are allowed to miss some days, so don't worry if you are planning to be away from the area during part of the monitoring period.

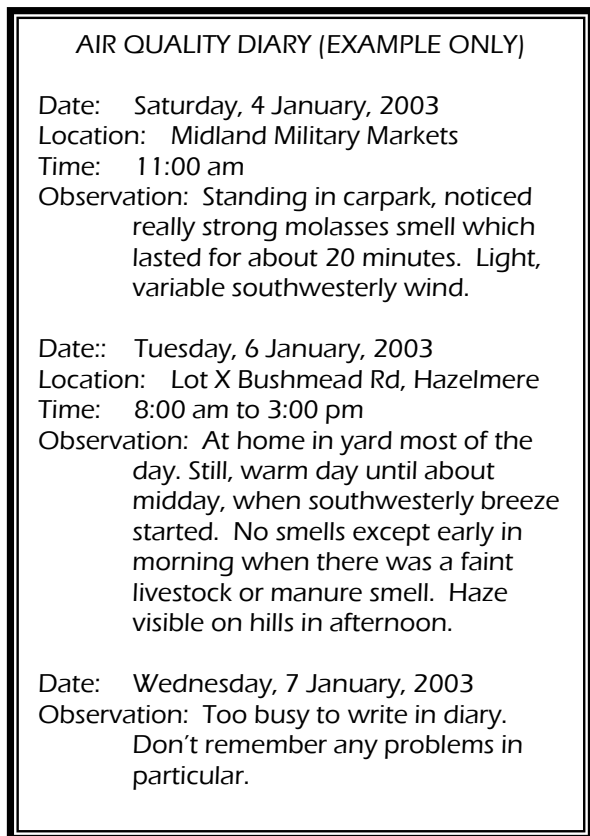


Figure 2. Sample diary entries.

### Open Day

Anyone who would like to see the DEP monitoring gear in action is welcome to visit the testing station on Saturday, 11 January 2003, from 8 am to 1 pm. Access to the site is from Military Road. (See Figure 3.) Families are welcome to bring children to see the monitoring equipment, but it is important to note that even though the saleyards will not be operating on the Open Day, the site is an industrial site. Children attending the Open Day must be accompanied and supervised by an adult.

Access to the saleyard site for prams or for people in wheelchairs is somewhat difficult, however we will do our best to arrange access for those with special needs if you will let the project coordinator know in advance of your requirements (ring 9222 7039).

### Unfinished Business

In DEP's last newsletter we announced our intention to engage a consultant to advise on brickworks odour and air emissions. The feedback we received from the community showed that most people who expressed an opinion on DEP's preferred consultant had serious misgivings about using the services of a person who has done a considerable amount of work for the clay products industry. The DEP has made enquiries concerning the availability of other technical specialists who might be more acceptable to the community, but has not been able to find a suitable specialist. Funding for this part of the project has therefore been redeployed for use in air monitoring programmes.

The date for issuing a final report on the Swan Valley brickworks review has been pushed back to February 2003 to allow the results of the monitoring programme to be included in the final report.

### Boys (and Girls) in Blue Show a Green Streak

The WA Police force is assisting the DEP's air quality review by providing continuous video filming of one of the brickworks chimney stacks. The video images allow us to observe the behaviour of plumes and may help DEP scientists to improve modelling of stack emissions. Some of the images from the police video coverage will be on display at the Open Day on 11 January. Thanks to all those at the WA Police who are helping the DEP to keep an eye on things in the Swan Valley!

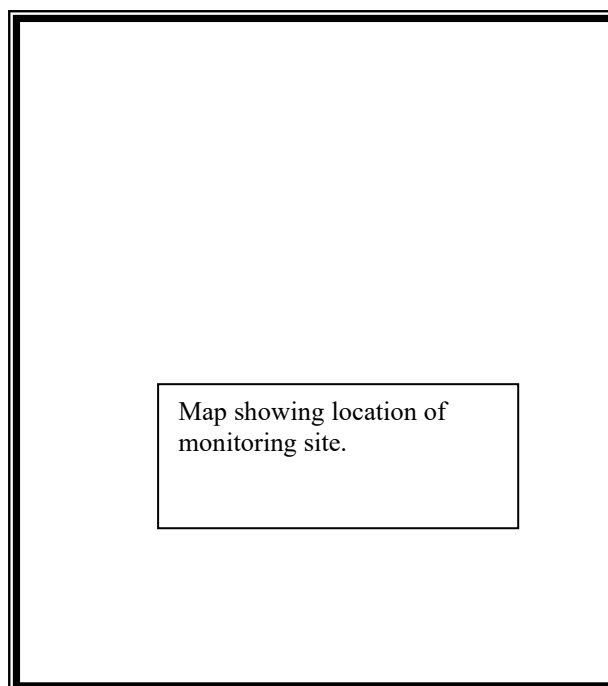


Figure 3. Location of DEP Open Day display.

