

DETERMINING ENVIRONMENTAL CONSTRAINTS IN WEST MARTIN: OUTCOMES OF DUST AND ODOUR ASSESSMENT STUDY

Over the past year you would have received some newsletter updates that have been sent by the City to residents of Martin to inform them of progress in the investigation of suitable future development options for West Martin. This third update explains the outcomes of a Dust and Odour Assessment study recently undertaken for the City by Sinclair Knight Merz (SKM) Engineering Consultants.

Background

In the September 2001 update, the City referred to a Noise and Dust Emissions Assessment study in West Martin which had been commissioned earlier that year, and which was to be forwarded to the Department of Environmental Protection (DEP) for their comment. Following DEP advice that further dust and odour studies were required, the City engaged SKM Engineering Consultants in February this year to further examine the existing dust and odour conditions and the constraints that these might impose in the West Martin area.

Now that the final SKM West Martin Dust and Odour Assessment report has been received by the City, this update explains the outcomes of the study and how they will guide future development in the West Martin area. The report has already been subject to consultation with the West Martin Consultation Group and other major stakeholders, including the Department of Environmental Protection and the CSR Readymix Quarry, and amended to address some of the issues raised by these stakeholders.

What was the aim of the Dust and Odour Assessment Study?

The study was commissioned by the City to determine the effects that dust and odour emissions from various local sources are likely to have on any potential

development in the West Martin area. It also aimed to establish a suitable buffer area in response to the identified dust and odour levels.

What was the outcome of the Study?

SKM Consultants undertook dust and odour monitoring over a one month period in March this year from four sites in the West Martin area, and integrated the results of these with a well-accepted computer-based modelling program known as 'Ausplume'.

The results of the dust study identified two possible boundaries for a dust buffer area in West Martin, based upon a 'best-case' and a 'worst-case' scenario. These alternative dust buffer boundaries are shown in Figure 1 over the page. The SKM Study also examined the potential odour impacts from the asphalt plant on the western end of the CSR Readymix Quarry. The study indicated that the buffer area required for odour levels would be much smaller than that required for dust (also shown in Figure 1), and its impact on the Martin area west of the Tonkin Highway is minimal. The positions of the dust buffer boundaries on the map depend on dust emissions from the quarry and emissions from other sources that contribute to the background levels. These include wind blown dust from exposed areas such as dry horse training areas, smoke from wood burning for domestic heating (in winter), vehicle exhausts, pollens, moulds and so on.

Reducing dust emissions from any of these sources will naturally reduce the size of the buffer area. The CSR Readymix Quarry plans to undertake a major upgrade of their quarry operations that will result in reduced dust emissions from some of the older crushing and screening plant and associated conveyors. This is expected to reduce the required dust and odour buffer areas.



What were the conclusions and recommendations of the Study?

The SKM report recommends that a dust buffer boundary be established within the area which recorded the highest daily dust levels.

The report recommends that this be done by undertaking a long-term dust level monitoring program, with monitoring to take place in the area where the model predictions indicated the highest levels of dust emissions are likely to occur. This is recommended because computer-aided modelling programs can never perfectly reflect reality, because of year-to-year variations in weather conditions and the uncertainties in establishing the dust emission sources. Should this dust monitoring program indicate unsatisfactory air quality then the DEP may require an air quality management plan be developed by the CSR Readymix Quarry. Planning will continue in those areas outside the buffers, and you will be informed of this process in further newsletter updates.

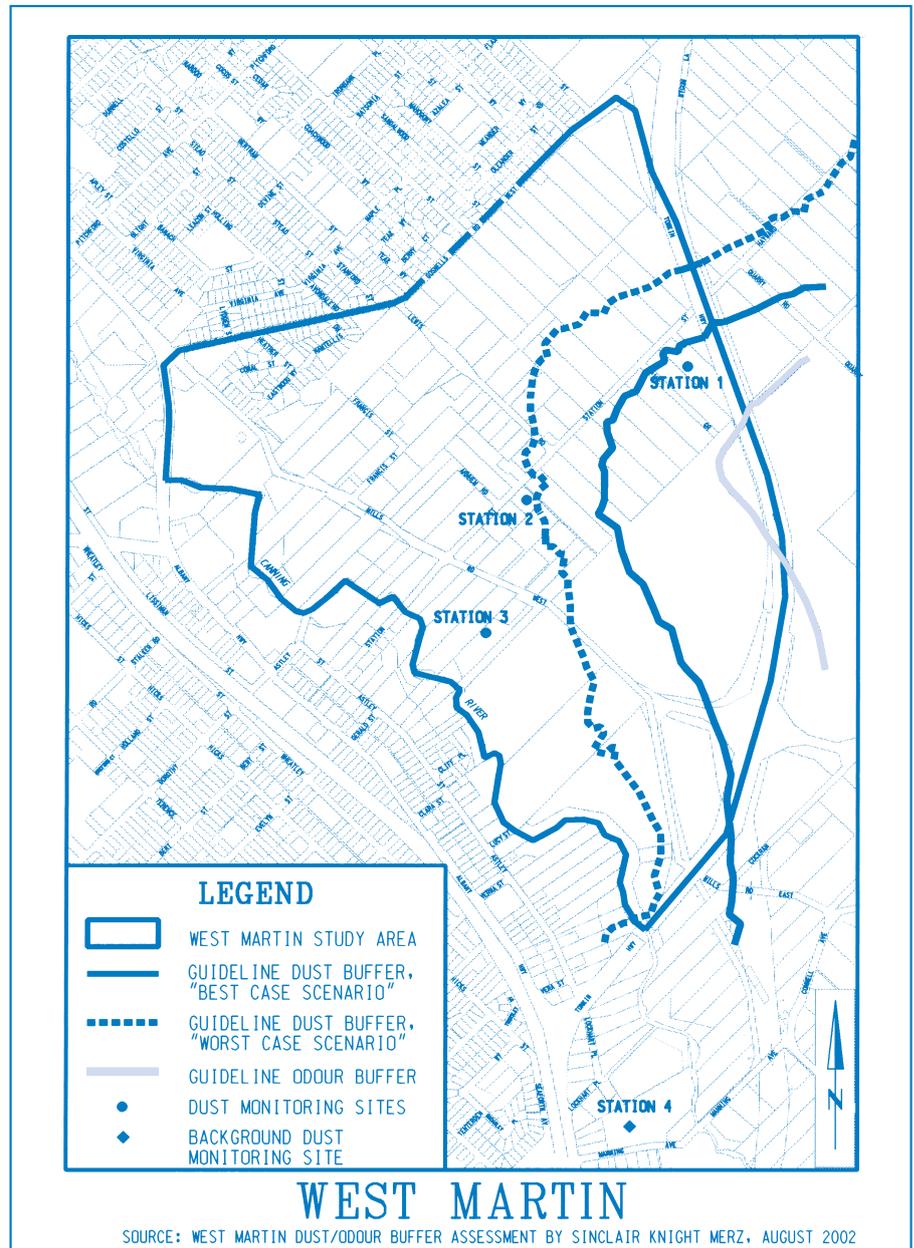


Figure 1 – Dust and Odour Buffer Boundaries in the West Martin Study Area

How can I find out more?

A five page summary outlining the methods and results of the West Martin Dust and Odour Assessment Study is available from the City on request. The full report is also available for viewing at the City of Gosnells Customer

Service Centre, located at 2120 Albany Highway, Gosnells, as well as at the Gosnells Library, 2240 Albany Highway, Gosnells. If you wish to discuss the summary or the SKM report with Council staff, please contact either of the following:

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