

Chum Creek, VIC 3777

12 June, 2018

Air Quality Coordinator, DELWP

*Submission concerning - Clean Air for All Victorians: Victoria's Air Quality Statement*

I am pleased that the government is considering improving air quality, particularly since this autumn has seen the worst air quality in the Yarra Valley area in the 7 years that I have lived here. This was almost entirely due to prescribed burns in the surrounding forests which blanketed the area with thick smoke in late April – early May, and not people burning in their backyards as some have claimed. I personally observed smoke rising then collapsing from several prescribed burns. My short submission will focus almost entirely on smoke pollution from prescribed burning.

It appears that smoke management is not really a consideration in a prescribed burn prescription, but based on this autumn it is extremely clear that it must be a consideration, both from a human health and an orchard viewpoint. Smoke management is an important part of a prescribed burn prescription throughout North America and must be made an important part of a prescribed burn prescription here in Victoria. In British Columbia (BC), Canada, for example, where I assisted in developing prescribed burn prescriptions (e.g. Feller, M.C. 1989. Guidelines for smoke management alternatives in British Columbia. P. 251-269 *In* D.P. Hanley, J.J. Kammenga, and C.D. Oliver (eds.) The Burning Decision: regional perspectives on slash. Univ. Washington, Institute of Forest Resources, Contribution No. 66), the current smoke management prescription states –

“The burning of woody debris outdoors is only permitted when the forecast Ventilation Index is sufficient to disperse smoke. Before debris can be ignited, the Ventilation Index must be predicted to be both **GOOD (55-100)** this afternoon as well as **FAIR or GOOD (34-100)** tomorrow afternoon.” ( <https://www2.gov.bc.ca/gov/content/environment/air-land-water/air/air-pollution/smoke-burning/ventilation-index> )

BC, (as well as US states) uses atmospheric conditions – height of the mixing layer plus average windspeed through this layer – to develop an index of smoke dispersion (the Ventilation or Venting Index). There is no reason why such an index should not be used here to guide prescribed burning. This index should be used together with wind direction and the likely quantity of smoke to be released into an airshed to determine whether or not one or more prescribed burns should be allowed on any given day. Had this been done, then the extreme smoke pollution in the Yarra Valley this autumn would have been prevented.

**Recommendation no. 1 – develop smoke management guidelines to minimise air pollution from prescribed burns and require all prescribed burns in Victoria to adhere to these guidelines.**

A final comment concerns air pollution in Melbourne - about 75% of Melbourne's air pollution (gases - CO, N<sub>2</sub>O, O<sub>3</sub> - and particulates) is caused by vehicle emissions. I suspect, but have no data, that most of the particulates derived from vehicles are caused by building construction, as is the case elsewhere. This pollution can be reduced by decreasing population growth, which I consider is nothing but cancerous now, and decreasing the number of vehicles. Both these are politically unpalatable, but offer the most effective means of reducing air pollution. To allow both to continue while applying band-aids elsewhere will achieve far less.

**Recommendation no. 2 – reduce population growth and the number of vehicles on the roads.**

Yours sincerely,

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