

The Secretary  
Economy and Infrastructure Committee  
Parliament House, Spring Street  
EAST MELBOURNE VIC 3002  
[airpollutioninquiry@parliament.vic.gov.au](mailto:airpollutioninquiry@parliament.vic.gov.au)

Dear Secretary,

### **Inquiry into Health Impacts of Air Pollution in Victoria**

I am writing to provide input from Murrindindi Shire Council officers for consideration into the Inquiry into Health Impacts of Air Pollution in Victoria, due Friday 23 April 2021. The input below responds to the terms of reference provided for this inquiry, which are outlined at <https://www.parliament.vic.gov.au/epc-lc/inquiry/994>.

#### ***Health impacts of air pollution identified in Murrindindi Shire***

Public Health Network (PHN)<sup>1</sup> data for the Murrindindi Shire reports that 16% of the population in Murrindindi Shire have received an asthma diagnosis (compared to the state average of 20%). Despite this lower local rate of diagnosis, the standardised rate of asthma related hospital admissions within the Shire, per 1000 people, is 1.39, which is higher than the Victorian state average of 1.13. Moreover, the average number of bed days as a result of an asthma related hospital admission is 5.29, which is considerably higher than the state average of 2.11 days and the highest number of days in the Murray PHN catchment area. This indicates that although Murrindindi Shire has a lower incidence of asthma than the state average, we have a higher rate of hospitalisation. Thus the health related costs of asthma for the Shire is significantly higher than the state average. This could potentially be correlated to the higher median age of 55, compared to the state average of 37 (2016 Census data)<sup>2</sup>. Regardless of the reason for higher hospitalisation, asthma within the Murrindindi Shire population is a significant health issue for our community.

#### ***Climate change and increased incidence of bushfires***

This inquiry could play a key role in identifying and addressing the significance of climate change mitigation policies and emissions targets for public health. It is important to note the projected

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<sup>1</sup> <https://www.phnexchange.com.au/priority-areas.php?phn=205&pri=Chronic%20Disease>

<sup>2</sup> <https://www.abs.gov.au/websitedbs/censushome.nsf/home/2016>

increase of high fire danger days and dangerous fire conditions as Victorian communities continue to experience the impacts of climate change<sup>3</sup>. The related smoke and its health effects, due to this increased fire risk is therefore important to consider in this inquiry, and the relevance of this issue to government adaption and mitigation policies and programs.

Additionally, it is recognised that the primary causes of air pollution, whether that be bushfire smoke or exhaust fumes, are the coal, gas and petroleum we use for electricity, transport and industry and which contribute directly to climate change. The World Health Organisation<sup>4</sup> recognises that the combination of air pollution with climate change (and communicable diseases) is considered to be the greatest threat to human health and accordingly requires coordinated action.

Linking with Victoria's Climate Change Act 2017 is particularly relevant to this inquiry, given the identified connections between climate change and air pollution. It is also important to note that under the Act, local councils are required to have regard to climate change both in their day-to-day operations and in the preparation of compulsory Municipal Public Health and Wellbeing Plans. Hence opportunities for partnering with local government as a key stakeholder is also relevant to this inquiry.

### ***Planned burns***

Planned burns are also a key factor when considering air quality and pollution, particularly in regional areas such as Murrindindi Shire, with significant areas of forest and other bushland. Prescribed burning is used as the prime method of fuel reduction in our municipality. However, prescribed burning has been shown to be a significant source of fine particulate emissions in Australia<sup>5</sup> and across the world<sup>6</sup> and often produces greater volumes of particulate matter than either wood burning stoves or bushfires due to lower temperatures and the increase of smouldering (ibid).

It is important that fuel loads be appropriately managed to reduce the likelihood of bushfires across our landscape. However, the increased use of mechanical methods of fuel reduction when in proximity to residential areas and towns may reduce the exposure of those residents to particulate and toxin emissions. It is not feasible to use mechanical means of fuel reduction on a broader scale with current technologies. We recognise that the use of fire as the primary method of fuel reduction will still be the most effective method of fuel reduction at the landscape scale – however, using alternative methods when close to communities may have a significant reduction in harmful particulate and toxin emissions on that community.

The Department of Health and Environment Protection Authority (EPA) utilise media, social media and the VicEmergency website and app to disseminate warnings on the risk of exposure to smoke emissions from prescribed burning. Whilst the majority of prescribed burns are listed via those platforms, the messaging is not always consistent or widespread. This creates confusion and

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<sup>3</sup> Department of Environment, Land, Water and Planning (DELWP) 2019, Victoria's Climate Science Report 2019

<sup>4</sup> Campbell-Lendrum and Pruss-Ustun 2019, Climate change, air pollution and communicable diseases, *Bulletin of the World Health Organization* 2019;97:160-161, <https://www.who.int/bulletin/volumes/97/2/18-224295/en/>, cited 5 March 2021

<sup>5</sup> Reisen, F, Meyer C et al, Atmospheric Environment 2011, Impact of smoke from biomass burning on air quality in rural communities in southern Australia, Volume 45, Issue 24, August 2011, pp 3944-3953

<sup>6</sup> Sangil, L, Karsten, B et al, Environmental Science and Technology 2005, Gaseous and Particulate Emissions from Prescribed Burning In Georgia, pp9049-9056, October 2005

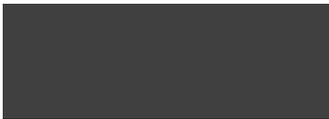
potential concerns for communities that have historically been severely impacted by fire as they have been in Murrindindi Shire. Further work on timely and targeted messaging and warnings of prescribed burning would be beneficial to support these communities. It helps community members to know when, for how long, from which direction and the potential intensity of particulate and toxin emissions for a prescribed burn, so that those with health concerns can take adequate mitigation measures to avoid unnecessary exposure.

In summary, in investigating how best to address the health impacts of air pollution in Victoria, we recommend the inquiry considers the above information to help ensure the follow issues in particular are addressed:

- Supporting and engaging with climate change mitigation and adaption efforts, especially at the local government level where Councils understand the local impacts and are responding directly to community health and wellbeing concerns and needs. This is particularly relevant, given the increased incidence of bushfires resulting from climate change, and the resulting impact on asthma and other health factors.
- Investigating and recommending best practice in relation to fuel reduction and planned burns, including communications to local communities regarding planned burns and options (such as mechanical fuel reduction) to reduce air pollution near towns and settlements.
- Implementation and evaluation of the above measures could be monitored through improvements in health and wellbeing indicators at the local government level, such as asthma and Chronic Obstructive Pulmonary Disease (COPD), in particular the burden on the healthcare system as a result of associated hospitalisations.

Thank you for the opportunity to contribute to this important inquiry. We look forward to seeing this process progress.

Yours Sincerely



Michael Chesworth  
Chief Executive Officer