Asthma
Australia

Submission to Victorian Government in response to Victoria Clean Air Statement

Prepared by Asthma Australia

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Introduction

Asthma Australia welcomes the opportunity to provide a submission to the Victorian Air quality statement. Asthma Australia is the peak consumer organisation for people with asthma and delivers evidence-based preventative health strategies to support the one in nine Australians living with asthma to breathe better.

Air pollution poses a significant public health risk, particularly to people with asthma and other respiratory conditions. At least 3,000 deaths (equivalent to about 28,000 years of life lost) per year in Australia are attributable to air pollution[1] and the health costs from mortality alone are estimated at $11-24 billion per year[2,3]. This is particularly felt for people with asthma, whose ability to participate in normal daily activities such as school and work can be greatly affected by fluctuations in Victorian's air quality. These issues are regularly highlighted by consumers contacting Asthma Australia who feel anxiety surrounding breathing difficulties and frustration about their lack of control over air pollution; particularly industry, transport and fire pollution. Communities who are closest to the sources of air pollution (e.g. Morwell, Brooklyn, Yarraville and Anglesea[4]) and who are also often of low social and economic disadvantage appear to be those most affected.

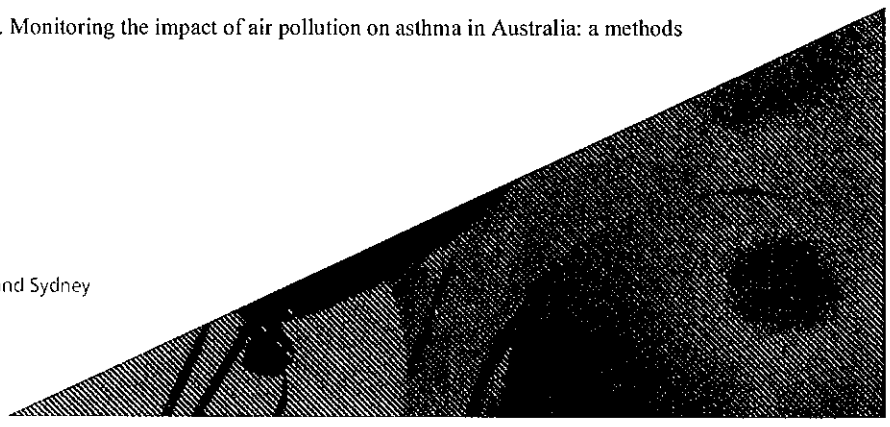
In Victoria, AIHW published a report in 2010 about the impact on asthma-related hospitalisations of poor air quality days across the calendar year and found that almost 200 hospitalisations were directly attributable to exposure to Nitrogen Dioxide (NO2)[5]. It's

[1] Australian Government, Australian Institute of Health and Welfare, *Australian Burden of Disease Study: Impact and causes of illness and death in Australia, 2011 (Revised 2016).*
[2] Begg S (2007). The burden of disease and injury in Australia 2003, cat. no. PHE 82, Australian Institute of Health and Welfare, Canberra.
[3] Access Economics (2008). The health of nations: the value of a statistical life, Australian Safety and Compensation Council, Australian Government Department of Education, Employment and Workplace Relations, Canberra.
[4] Environmental Justice Australia (2014). Clearing the air: why Australia desperately needs effective air pollution laws, Environmental Justice Australia, Melbourne.
[5] Australian Institute of Health and Welfare 2010. Monitoring the impact of air pollution on asthma in Australia: a methods paper, Cat no ACM 18, AIHW, Canberra.

Asthma Australia Ltd ABN 91 609 156 630
PO Box 9875 IN YOUR CAPITAL CITY

1800 ASTHMA Helpline (1800 278 462)
info@asthmaaustralia.org.au
asthmaaustralia.org.au

Offices in Adelaide, Brisbane, Canberra, Melbourne and Sydney



important to acknowledge that for each patient hospitalised with asthma complications there is an order of magnitude more who are experiencing and using other means to address their breathing difficulties. This is just one report of many available to demonstrate this association.

Due to the significant impact on people with asthma and particularly those most vulnerable to complications, Asthma Australia commends the Victorian government for its investment in a Clean Air Strategy for Victorians and inviting contributions from community stakeholders against the stated proposed initiatives of:

- Strengthening Victoria's equipment standards,
- Improving Victoria's air quality monitoring network,
- Increasing government's own use of clean technologies, and
- Encouraging the development of walkable neighbourhoods.

Further to these initiatives, Asthma Australia strongly recommends:

1. Tightening emission regulations
2. Strengthening enforceability of existing and future regulations
3. Facilitating an independent cost benefit analysis of hazard reduction burns
4. Conducting research into alternatives to hazard reduction burning which have lesser impact on the environment and human health
5. Treating air pollution from logging coupe burns like other forms of industrial air pollution
6. Investigating alternatives to coupe logging burns which have lesser impact on the environment and human health
7. Legislating and enforcing air quality limits with view to limiting concurrent burns in connected areas
8. Developing clear guidelines on a communication process to occur prior to planned burns so individuals and communities are forewarned and have opportunities to reduce their risk exposure
9. Expanding the air quality monitoring network in Victoria and enabling easier access to data
10. Scaling air quality monitoring and communication activities during periods of acute poor air quality, such as planned burn days
11. Better monitoring of wood heater emissions to inform stricter regulations
12. Introducing legislation to reduce the number of diesel heavy vehicles in metropolitan, high density residential areas.

Tighten emission regulations and strengthen enforceability of existing and future regulations

Evidence has shown us that despite having one of the world's best clean air standards and Victoria reporting cleaner air than the national average, people vulnerable due to their chronic illness, like asthma, are affected even when the background levels are 'below the line'. There is no safe level of the smallest measurable particle, PM 2.5, as this has the potential not only to affect the airways but also enter the bloodstream.

Stronger emissions regulations and mandatory enforcement must be implemented to reduce the harmful effects of poor air quality on all Victorians, our future generations and the environment. We implore the government to set strict best practice emission regulations and ensure these are enforced to reduce emissions as close to zero as possible.

Recommendation 1: Tightening emission regulations

Recommendation 2: Strengthening enforceability of existing and future regulations

Research effectiveness of hazard reduction burns and investigate alternative methods, which have lesser impacts on the environment and human health

While Asthma Australia understands the rationale and potential life-saving impact of hazard reduction burns and the expertise and efforts of our colleagues in the fire service we are increasingly concerned about the secondary impact these burns have on the 6 million people in Victoria, 688,000 of them with asthma. Hazard reduction burns are taking place with increasing frequency and intensity and place great strain on the breathing capability of Victorians.

People with asthma who are exposed to smoke may have; increased risk and frequency of asthma flare ups, increased need for asthma medications, reduced lung function, and increased sensitivity to other triggers. Symptoms can also occur for several days after exposure to smoke. In turn, this can greatly affect quality of life and ability to participate in normal daily activities such as school and work.

An increasing amount of research into the practice suggests;

- Plant species, as opposed to surface fuel load, are the key drivers of fire severity[6];
- Hazard reduction burning can be effective at reducing fire risk but at other times removal of leaves and scrub can make forests more flammable[6];
- In certain conditions (once weather and fire intensity builds to a certain level) fuel reduction burns make little difference[7];
- Fuel reduction burns are unlikely to be effective as little as 10 years later[7];
- Hazard reduction burns have little potential to substantially reduce the extent and intensity of wildfires unless unrealistically large areas (approx. 30%) are burnt[8].

Recommendation 3: Facilitating an independent cost benefit analysis of hazard reduction burns

Recommendation 4: Conducting research into alternatives to hazard reduction burning which have lesser impact on the environment and human health

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[6] Zylstra et al (2016). Biophysical mechanistic modelling quantifies the effects of plant traits on fire severity: species, not surface fuel loads, determine flame dimensions in eucalypt forests, PLOS one, Ohio.

[7] Tolhurst K & McCarthy G (2016). Effect of prescribed burning on wildfire severity: a landscape-scale case study from the 2003 fires in Victoria, Australian Forestry, 79:1, 1-14.

[8] Furland S, Williamson G & Bowman D (2018). Simulating the effectiveness of prescribed burning at altering wildfire behaviour in Tasmania, International Journal of Wildfire, 27, 15-28, Tasmania.

Treat air pollution from logging coupe burn like other forms of industrial air pollution and consider ways in which it can be better regulated

Like hazard reduction burns, clear-fell logging burns generate a large volume of smoke and particulate matter which poses serious health risks to individuals. The Victorian government should facilitate investigation of alternative methods to harvest timber which reduces public health impacts.

In the event that clear fell logging continues, the practice should be considered industrial pollution and subject to the regulations which restrict these pollution emissions. The air pollution generated by clear fell logging is for private commercial gain and should be treated as such.

Recommendation 5: Treating air pollution from logging coupe burns like other forms of industrial air pollution

Recommendation 6: Investigating alternatives to coupe logging burns which have lesser impact on the environment and human health

Improved coordination of communication about planned burning (including hazard reduction, commercial post-logging burns and private fires) for people most likely to be affected

In addition to reviewing the practices of hazard reduction and logging coupe burns, better monitoring and communication to the Victorian population is necessary. This also extends to communication around private planned burning. In the information age, we should aspire to consider the information needs of the community as they relate to environmental issues and air quality.

Planned burns need to be coordinated across sectors and industry. It is not reasonable to plan and implement hazard reduction burns or commercial coupe burns ignorant of other burns taking place. There needs to be clear limits to number of planned burns and this must be coordinated across sectors to include all types of planned burning. During one period in Autumn this year, much of the planned burning in Gippsland was being done by the logging industry whilst at the same time planned hazard reduction burns were occurring. This resulted in a string of hazardous air quality days and disastrous conditions for people with asthma.

Recommendation 7: Legislating and enforcing air quality limits with view to limiting concurrent burns in connected areas

Recommendation 8: Developing clear guidelines on a communication process to occur prior to planned burns so individuals and communities are forewarned and have opportunities to reduce their risk exposure.

Better air quality monitoring data and access

We support the government's suggestion to expand air quality monitoring network. Victorians should have the opportunity to access data about their air quality to make informed decisions, regardless of where they live.

Asthma Australia also supports the strategy to provide communities with rapid, clear and relevant information on air quality where there is an emergency event. There should be agile systems in place used to measure and inform the public in response to acute poor air quality and unpredicted events such as industrial accidents and bushfires.

Recommendation 9: Expanding air quality monitoring network in Victoria and enabling easier access to data

Recommendation 10: Scaling air quality monitoring and communication activities during periods of acute poor air quality, such as planned burn days

Strengthen Victorian equipment standards, such as a for wood heater emissions.

Asthma Australia supports the recommendation to strengthen equipment standards for wood fire heaters. Wood heaters cause significant pollution in autumn and winter months and have a demonstrated impact on people's health, especially those with asthma or other respiratory conditions, through their alarmingly high PM2.5 emissions[9]. While the EPA Victoria acknowledges that wood fire heaters are significant contributors to poor air quality there is limited monitoring available on the extent of their pollution in Victoria, which could inform stricter policies and regulations. The Clean Air for NSW Consultation Paper showed that residential wood heating was responsible for more than 50% of PM2.5 emissions in Sydney, compared to 14.4% from road traffic related emissions[10].

Recommendation 11: Better monitoring of wood heater emissions to inform stricter regulations

Ban diesel trucks on residential streets

Victoria's clean air statement acknowledges that transportation is a major contributor to particulate matter air pollution. However there is no specific mention of the damaging effects diesel trucks in particular have on the health of Victorians, particularly their presence in residential areas. As discussed already, particulate matter is extremely harmful and exacerbates asthma and other respiratory conditions. Diesel emissions have also been declared by the World Health Organisation as a group 1 carcinogen[11].

Diesel trucks have long been an issue in Western Melbourne, in particular the local government area of Maribyrnong. Environmental Justice Australia (EJA) highlighted

[9] Australian Government (2005). Woodheaters and smoke, Department of the environment and heritage, Canberra.

[10] New South Wales Government (2016). Consultation paper: clear air for NSW, NSW Environment Protection Authority and Office of Environment and Heritage, Sydney.

[11] World Health Organisation (2012). IARC: diesel engine exhaust carcinogenic press release, World Health Organisation, France.

Yarraville as a hotspot for air pollution in their 2014 report 'Clearing the air'[12]. EJA sited that this air pollution is caused by up to 7,000 diesel trucks using residential streets daily, and on numerous days a year emitting levels of particulate matter which far exceed safe limits[12].

This issue has also been highlighted to Asthma Australia by our consumers, particularly parents of children whose school areas are affected. The use of residential streets for a high volume of diesel trucks is a significant and avoidable issue.

Recommendation 12: Introducing legislation to reduce the number of diesel heavy vehicles in metropolitan, high density residential areas.

Finally, we would like to express our caution about the 'cost-effectiveness' criterion for clean air solutions, as expressed by the clean air strategy preamble summary.

Community health and wellbeing, resilience and wellness are immeasurable factors which should balance the direct costs associated with implementing best practice clean air solutions in Victoria. An example where the cost-effectiveness model has been exploited and disastrous to the wellbeing of the community has been the recent hazard reduction burns coordinated in Sydney and surrounds, which resulted in 17 poor or hazardous air quality days in greater Sydney and real and severe distress, trauma and anxiety for the thousands of people in Sydney buffeted by those conditions constantly over that month.

If cost effectiveness is going to be a measure to define policy, it should be evaluated comprehensively so the human cost, productivity losses, life years affected and disability-related burdens as impacted by poor air quality are all taken into account to reflect the 'fully loaded' bill for poor practice.

We would be happy for the opportunity to discuss these recommendations and be involved in further action to improve air quality in Victoria as part of the Clean Air Strategy.

Yours sincerely,

Anthony Flynn

Senior Manager, Research, Policy and Advocacy

Asthma Australia

[12] Environmental Justice Australia (2014). Clearing the air: why Australia desperately needs effective air pollution laws, Environmental Justice Australia, Melbourne.