



# QUEANBEYAN-PALERANG REGIONAL COUNCIL DRAFT SOLID FUEL HEATER POLICY

Joint Submission by Asthma Australia, Centre for Safe Air, and HEAL National Research Network, October 2024

## Summary and recommendations

Asthma Australia, the Centre for Safe Air, and the Healthy Environments and Lives (HEAL) National Research Network welcome the opportunity to comment on Queanbeyan-Palerang Regional Council's (QPRC) Draft Solid Fuel Heater Policy. We support the Draft Policy which, if implemented, will mean new applications to install solid fuel heaters (commonly referred to as wood heaters) will not be approved in urban areas of the Queanbeyan-Palerang Local Government Area (LGA), and enforcement action can be taken against unapproved wood heaters.

Wood heaters are the single most important source of human caused air pollution in many populated areas throughout Australia. Air pollution from this source is linked to hundreds of earlier than expected deaths every year. If implemented and enforced, the measures contained in the Draft Policy would improve air quality and health outcomes in Queanbeyan-Palerang's urban areas. Implementing these measures may also raise awareness in the community about the adverse health and environmental impacts of wood heaters.

There are limitations in the Draft Policy that provide valuable opportunities for future reforms, such as the continued approval for replacement of existing wood heaters with new wood heaters and the lack of incentives or requirements to remove existing wood heaters. We therefore urge QPRC to further support health and wellbeing by developing and consulting on additional measures to transition households from wood heaters to efficient, electric alternatives.

**Recommendation 1: Queanbeyan-Palerang Regional Council (QPRC) should implement the measures contained in the Draft Solid Fuel Heater Policy so new applications to install solid fuel heaters in buildings in the urban areas of the Queanbeyan-Palerang Local Government Area (LGA) will not be approved.**

**Recommendation 2: QPRC should allocate sufficient resourcing for compliance and enforcement action to:**

- a) Identify and remove unapproved wood heaters.
- b) Investigate and address complaints about wood heater smoke.

**Recommendation 3: QPRC should develop and consult on additional measures to improve air quality and health outcomes, including:**

- a) Removing the exclusion for replacement of existing wood heaters with new wood heaters in urban areas of the LGA.
- b) Providing incentives and requirements to replace existing wood heaters with efficient, electric alternatives.

## Impacts of wood heaters on human health

Robust evidence documents the adverse impacts of wood heater smoke on human health.<sup>1</sup> Wood heater smoke contains harmful pollutants including fine particulate matter and known carcinogens. Adverse health impacts can occur at low levels of pollution, meaning there is no ‘safe’ level of air pollution.<sup>2</sup> Wood heater smoke is recognised as a trigger for asthma symptoms and exacerbations that should be avoided or reduced.<sup>3</sup> It is also a risk factor for other respiratory illnesses, certain cancers, cardiovascular disease, premature birth and premature death.<sup>4</sup> Unfortunately, the people suffering these health impacts are often unable to control their exposure to wood heater smoke.<sup>5</sup>

Despite being used by a small minority of households, wood heaters are a major source of air pollution in many parts of Australia. For example, wood heaters are the main human source of fine particulate matter in Sydney<sup>6</sup> and Tasmania.<sup>7</sup> A recent health impact assessment identified wood heaters as the main source of air pollution in the Australian Capital Territory (ACT) where they are estimated to cause up to 63 premature deaths annually, with an equivalent cost of up to \$333 million.<sup>8</sup> These findings are particularly concerning given the low usage of wood heaters in the ACT, with less than 5% of Canberra households estimated to rely on wood heaters as their primary source of heating.<sup>9</sup>

Addressing wood heater pollution will significantly improve air quality in the Queanbeyan-Palerang LGA and bring a range of health, economic, and social benefits to your community. For more information about these benefits, please refer to the Centre for Safe Air’s ‘Safer Air, Healthier Communities’ report,<sup>10</sup> a summary of which is included below (Attachment A).

## Impacts of wood heaters on climate change and health

The pollutants produced by wood heaters not only worsen air quality but also contribute to climate change. In 2022, the ACT’s Commissioner for Sustainability and the Environment investigated wood heater policies and reported that replacing all wood heaters in Australia with alternative heating sources would reduce the contribution to climate change.<sup>11</sup> The Commissioner further highlighted the environmental damage due to firewood harvesting from forests and woodlands.

Climate change is widely recognised as the greatest threat facing human health and its impacts include increased exposure to airborne hazards such as bushfire smoke, household mould, and pollen.<sup>12</sup> Australia’s National Health and Climate Strategy recognises people with asthma and allergies among the population groups more likely to suffer health impacts from exposure to these hazards, alongside people with other chronic lung and heart conditions, children, pregnant people, older people, and people in low income areas.<sup>13</sup> This means policies to reduce air pollution from avoidable sources such as wood heaters will further support health by mitigating climate change, in addition to the direct health benefits gained by improving air quality.

## Wood heater use in NSW

Asthma Australia commissioned a national survey of over 5,000 people in 2022 which included questions about the types of heating regularly used by respondents during cooler months, heating

preferences, and barriers to switching to preferred types of heating. Asthma Australia analysed the survey results from the 1,516 respondents from NSW to inform this submission and can provide a report detailing these findings to QPRC on request.

Asthma Australia's analysis found regular wood heater use was substantially more common in regional and rural NSW (23%) than in major cities (11%). Nationally, people with a household income of \$120,000–\$150,000 were 1.5 times more likely to report wood heater usage than people with a household income of less than \$40,000. An even higher proportion of residents in the upper income bracket regularly used wood heaters in NSW (19%) compared to the national average (17%).

Overall, more than half the respondents in NSW who reported regularly using a wood heater during cooler months also reported regular use of a more efficient type of heating, such as reverse cycle or central air conditioning. People with increased household income were more likely to report using both wood heaters and more efficient heating types. The survey found a strong preference for efficient and healthy types of home heating, with nearly half the respondents nationally saying they would prefer to heat their homes with reverse cycle or central air conditioning to heat, while just 15% preferred wood heating, with similar results in NSW. Respondents commonly reported cost and not owning the home as barriers to switching to reverse cycle air conditioning.

## Community attitudes around wood heaters, pollution and health impacts

In 2020, Asthma Australia commissioned research to better understand the prevalence of wood heaters, the health impacts of wood heaters, and attitudes to wood heaters in Australia. The research included 15 focus groups across Australia and a national survey of more than 25,000 people.<sup>14</sup> The survey results demonstrated the majority of people understand that wood heaters can be harmful to health, with 75% agreeing wood heaters can cause health impacts for certain people, and 55% recognising wood heaters cause health problems for the general population. The results also showed most people who experience respiratory symptoms are not able to reduce their exposure to wood heater smoke, with just 18% of people with asthma saying they were able to protect themselves from wood heater smoke.

In addition to Asthma Australia's consumer research, the organisation regularly hears from people around Australia who are struggling with the impacts of wood heater smoke on their health, the health of their children, and their amenity. Many people express their frustration that despite documenting and reporting wood heater smoke to local governments, inadequate action is taken, and they continue to be exposed to harmful pollution.

The following comments were provided by participants in Asthma Australia's 2020 research:

"People who have asthma and other respiratory conditions are very badly affected by the smoke from these heaters, my neighbour has asthma and suffers terribly because here in Canberra and in surrounding areas, there are a lot of these wood-fire heaters." Canberra, ACT

"...I've lived next door to people who used to have theirs going constantly and the days when there is no wind or it was blowing over our place were terrible, I can remember seeing

ash cover our patio and having to re-wash clothes we hung out, my wife used to complain it made her feel sick and it probably caused her health problems in hindsight.” Adelaide, SA

“People with asthma like my sister-in-law suffer the most in terms of health impacts, she lives in the Lenah Valley (Hobart) and basically has to live in the house with all the doors and windows shut from May-September because it induces asthma attacks.” Hobart, TAS

“The bushfires we had late last year and early this year were horrendous and I can think of a few people with asthma and a neighbour who had lung cancer who were all suffering terribly because of the smoke and down in Camden (suburb of Sydney) that happens to some people every year in the winter months because of number of homes that have wood-fire heaters, even if you have the flu it really affects you.” Sydney, NSW

“I don’t know why they haven’t been totally banned in residential areas in major cities and large towns, my mother lives in Tamworth and when I was there in July, the smoke from the wood-fire heaters was so bad, luckily I don’t have asthma but it still made me unwell with a headache and sore throat.” Newcastle, NSW

“These wood-fire heaters don’t have a place in a city where people live in close proximity, just a cluster of a few homes with one can have a large impact on a lot of people in the neighbouring area. I used to live in Kenthurst (suburb of Sydney) and every winter people in the area would be affected and complain about the smoke to the local council.” Macquarie Park (Sydney) NSW

“It gets pretty bad here (Bendigo) because even in the new housing areas where we are, a lot of people have installed wood-fire heaters, I would say at least half of the homes built in the last five years that I know would have one.” Bendigo VIC

## ABOUT ASTHMA AUSTRALIA

Asthma is a respiratory condition that affects nearly 2.8 million Australians, with children being the most impacted. Asthma is responsible for at least one Australian death every day, making it a serious health concern. More than 30,000 people are hospitalised each year due to asthma, yet at least 80% of these hospitalisations are considered potentially avoidable.

Despite the prevalence of asthma, it is often misunderstood, causing fear and anxiety for those living with the condition. Asthma Australia has been the leading charity for people with asthma and their communities for over 60 years.

The challenges of climate change, unhealthy air, and health inequity make it more important than ever for people with asthma to have a voice. We search for new and progressive approaches to challenge the status quo. Our work is grounded in evidence and centred on the experiences of people affected by asthma. We believe by listening to those living with asthma, designing solutions with them, and influencing change, people with asthma can live freely, unrestricted by their asthma.

## ABOUT THE CENTRE FOR SAFE AIR

The Centre for Safe Air is a Centre of Research Excellence funded by the National Health and Medical Research Council. The Centre brings together more than 20 researchers at the forefront of their fields, based in 13 of Australia's leading research institutions. The Centre supports multidisciplinary research across epidemiology, exposure assessment, toxicology, climate and air science, biostatistics, respiratory medicine, and health economics to pursue collaborative projects and to develop capacity. The vision of the Centre is "to achieve substantial improvements in population health, safety, and resilience in the face of existing, emerging, and escalating airborne hazards through evidence-based policy and practice interventions".

The Centre is principally focused on three areas that relate to air quality:

1. Sources: determining how to measure, track, predict and manage outdoor air hazards at national and regional scales.
2. Settings: considering the options for homes, schools or workplaces to mitigate the health burden from outdoor air hazards.
3. Individuals: considering the most vulnerable populations and how we can best protect them.

The Centre's major focus is to conduct research and advocate on the above issues to strive for safe air across all sectors of the community. Clean air is crucial to supporting good health.

## ABOUT THE HEAL NETWORK

The Healthy Environments and Lives (HEAL) National Research Network is funded by the National Health and Medical Research Council Special Initiative in Human Health and Environmental Change. The HEAL Network is a broad coalition of over 100 investigators and more than 30 organisations from across Australia that aims to bridge the gap between knowledge and action by bringing together Aboriginal and Torres Strait Islander knowledge, sustainable development, epidemiology,

and data science and communication to address environmental and climate change and its impacts on health across all Australian states and territories.

HEAL takes national leadership in environmental change and health research to provide the evidence, capacity and capability and tools urgently needed to:

1. Protect and improve community health, especially at-risk groups and people in regions and communities disproportionately affected by environmental and climate change.
2. Strengthen health system resilience, preparedness and responsiveness to changing environmental conditions, climate extremes, and related diseases, and reduce its environmental impact.
3. Reduce inequities and inequalities within and across communities and generations.

Developing the scientific evidence for tackling environmental degradation, including air pollution, is a core theme of the HEAL Network.

## Attachment A

### Summary of the Centre for Safe Air's report: ['Safer Air, Healthier Communities'](#)



safeair.org.au

## TEN REASONS TO INVEST IN SAFER AIR



**1. Air pollution increases rates of non-communicable diseases in the community.**  
Heart disease, stroke, dementia, type 2 diabetes, lung diseases and cancer are all leading causes of illness and death for Australians. Air pollution increases rates of all these conditions.<sup>1,7</sup> There is mounting evidence that air pollution also affects many other human body systems and functions including fertility and reproduction, bone health, learning and cognition, and immune function.<sup>4-16</sup>



**2. Air pollution is an important risk factor for communicable diseases.**  
Air pollution increases the risk of respiratory infections and may potentiate respiratory epidemics.<sup>17-21</sup> Confined indoor spaces can increase the risk of transmission of some infectious diseases.<sup>22</sup> Improving indoor and outdoor air quality will reduce the community burden of respiratory infections.



**3. Air pollution affects our health from conception and throughout life.**  
Air pollution can have lasting health and social consequences for an individual over their life course. Exposure affects the growth, development, and overall health of unborn babies. These influences can contribute to the risk of developing non-communicable diseases later in life<sup>6, 23, 24</sup> and may be associated with poorer cognition and educational outcomes in children.<sup>25-27</sup>



**4. Air pollution worsens health inequities – lessening air pollution reduces them.**  
The health impacts on those affected by air pollution are unevenly distributed across the Australian population. Some of the most vulnerable people in our society are at higher risk of worse health outcomes from air pollution exposure: older adults, pregnant people and unborn babies, children, people with pre-existing chronic conditions, socially disadvantaged populations, and Aboriginal and Torres Strait Islander people. With few other interventions offering simultaneous health benefits to vulnerable people, air pollution represents a powerful opportunity to reduce health inequities in Australia.



**5. Climate change is driving more air pollution and air pollution accelerates climate change.**  
Climate change is deteriorating air quality and the health of Australians through more frequent and severe bushfires, smog, dust storms, and other

extreme weather events.<sup>28-30</sup> In turn, severe bushfires are influencing the global climate and weather systems. This is creating a feedback loop that is worsening both air quality and climate change. Reducing air pollution is vital for mitigating climate change and maximising the benefits of decarbonisation and electrification for health and wellbeing.



**6. Addressing air pollution has many co-benefits.**  
Climate change and air pollution share common drivers. Policies to mitigate combustion emissions, for example, will have the benefits of mitigating climate change, air pollution, and other social and environmental drivers of chronic diseases. Many opportunities exist to achieve this – from decarbonising our energy and transport systems, to greening our cities, improving urban and housing design to bushfire prevention strategies.



**7. The impacts of air pollution are increasing.**  
Population growth and ageing, urbanisation, and increasing transport and energy demands pose additional risks to air quality, climate change and population health. This is why timely interventions are needed.



**8. The economic impacts of air pollution are high and underestimated.**  
Australian estimates to date have placed fine particulate matter (PM<sub>2.5</sub>) air pollution related mortality costs at AUD \$6.2 billion annually.<sup>4</sup> However, the costs of other pollutants (e.g. nitrogen dioxide from traffic emissions) and non-health costs like labour, productivity, welfare, and other societal costs, are largely unaccounted for in existing economic analyses on air pollution.



**9. Return on investment is high.**  
Every dollar spent generates returns in the forms of reduced health costs, healthier people and longer lives. Reducing the annual average population exposure to fine particulate matter (PM<sub>2.5</sub>) by a modest and highly achievable 5% could avoid the economic burden from years of life lost by around AUD \$1.6 billion every year.<sup>31</sup>



**10. Small improvements in air quality will drive large population health and economic benefits.**  
The rate of increase of many air pollution related health outcomes is steeper at lower concentrations, tapering off at higher levels. For Australia, this means that any small improvements, even to levels below current national air quality standards, will bring measurable population health and economic benefits.



## References

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