

11 March 2022

Daniel Walters

Senior Director | Environment Protection Policy

Environment, Planning and Sustainable Development Directorate | ACT Government

By email: daniel.walters@act.gov.au

Dear Mr Walters,

I am writing to you in response to your request for industry feedback on the Bushfire Smoke and Air Quality Strategy 2021-2025 document.

We would like to acknowledge our appreciation for the consultation process that has been undertaken by the ACT Government, thus far. As the peak industry body representing the solid fuel industry, the Australian Home Heating Association (AHHA) welcomes the opportunity to make a submission and we believe the best environmental outcomes are achieved when industry and government work closely together to develop practical regulatory solutions.

The AHHA represents manufacturers, retailers, installers and maintenance service providers in the wood heating industry. Our members employ over 10,000 Australians nationwide.

As a general point, the AHHA strongly supports the ACT Government's objective in strengthening measures to address air quality impacts. In conjunction with proper enforcement and education, this will lead to a tangible improvement for air quality. The AHHA supports the general direction of the changes proposed by the ACT Government. We would like to propose alternative measures and provide comments for consideration regarding the Action Plan listed in the *Bushfire Smoke and Air Quality Strategy 2021-2025*.

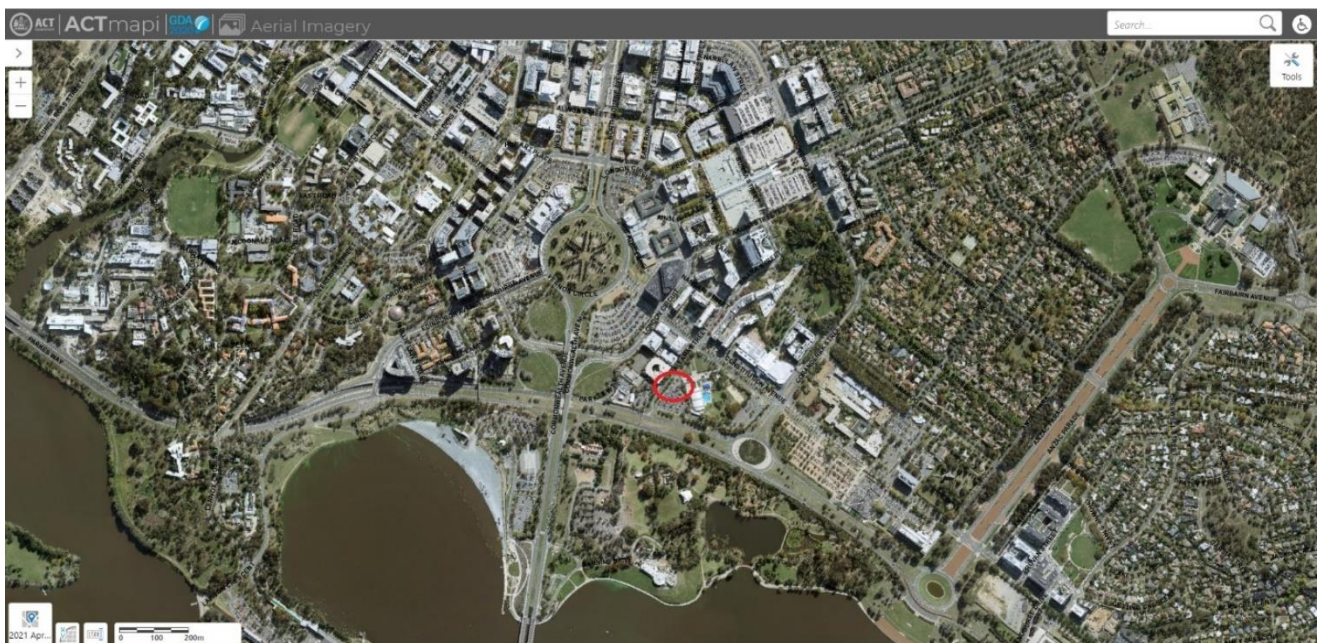
Action 1 - Investigate the utility and reliability of suburban air quality monitoring to collect data on the prevalence of wood smoke in suburban areas across Canberra.

We understand the importance and relevance of the collection of data from the monitoring stations. There are three monitoring stations in the ACT – Civic, Florey, and Monash. Each monitoring station has its own unique characteristics that arguably influence the data that is recorded, in particular PM2.5.

Civic – this monitoring station is located in the centre of Canberra, and primarily surrounded by commercial buildings, car parks, and open spaces. The nearest residential suburb is Reid to the east of the monitoring station. This suburb was first established in the late 1920s. The suburb now consists of a mix of old and new homes. Old homes are likely to have been renovated/restored and if has a wood heater will be a modern low emission clean burning heater. Similarly, if it's a new build home, if it has a wood heater installed, it is likely to be a compliant wood heater.

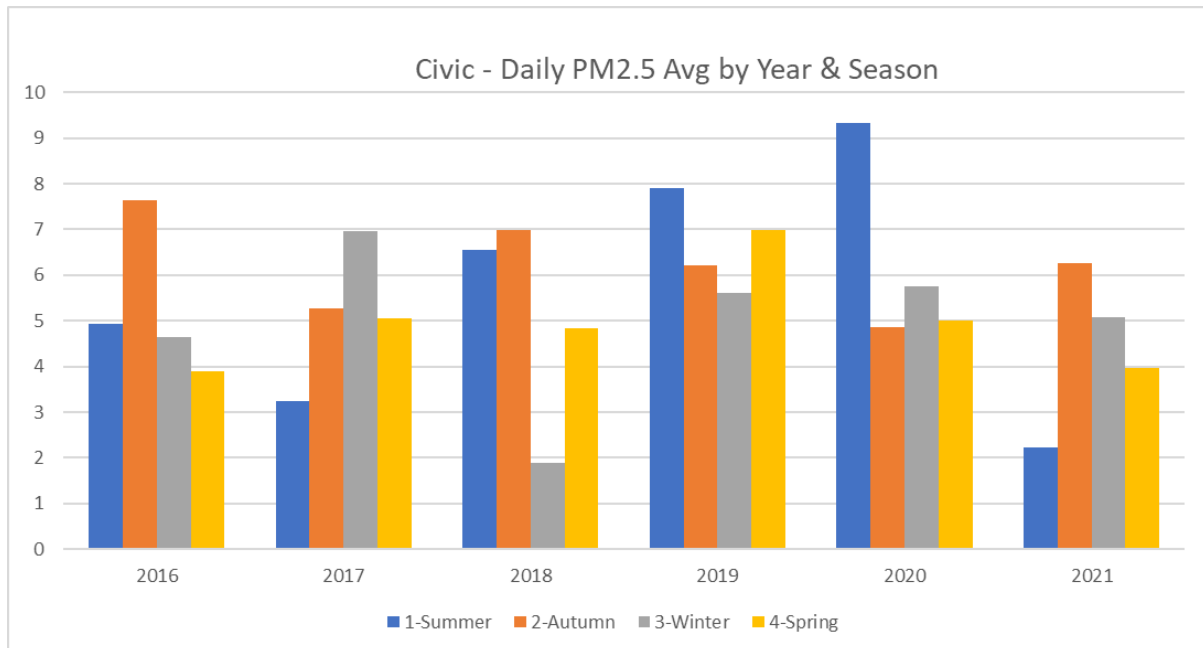
With limited residential housing near the monitoring station, it could be argued that the PM2.5 levels recorded are representative of all PM2.5 sources except wood smoke.

The monitoring station is circled in red in the satellite image below.



Source: ACT Government: ACTmap*i*

Of the three monitoring stations, Civic has the lowest daily average for PM2.5. This graph shows the average daily PM2.5 for each season over the last 6 years (2019/2020 bushfires have been excluded). PM2.5 levels are higher in summer than winter 4 out of 6 years. It would appear that wood smoke has only limited impact on air quality at this monitoring station.



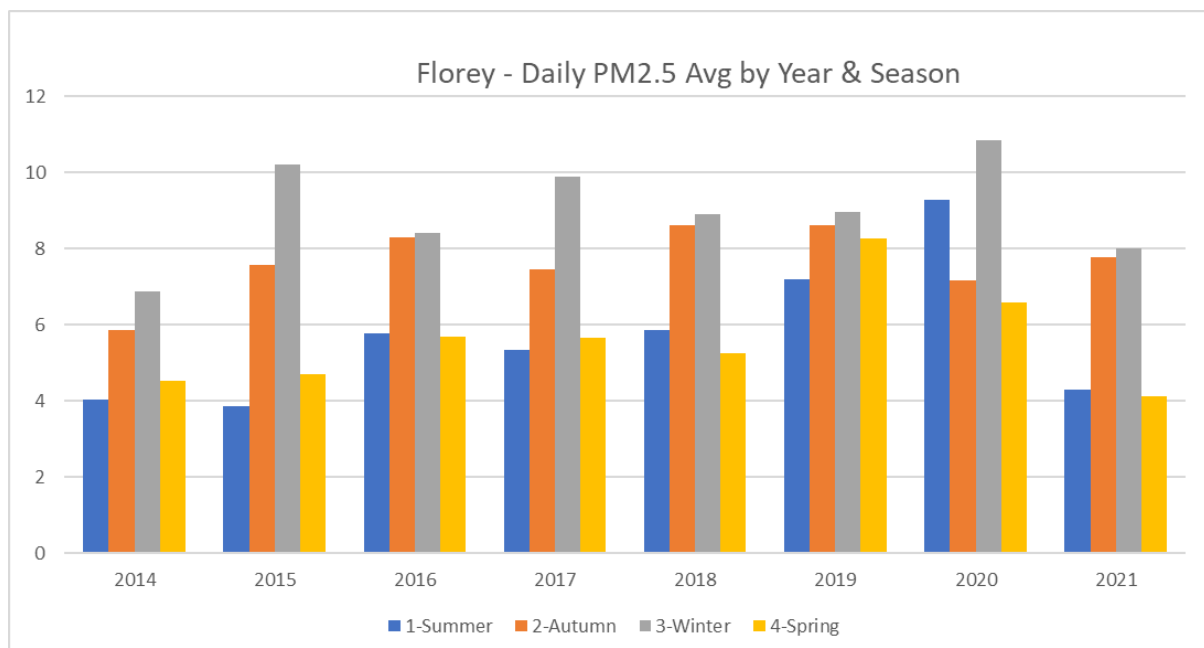
Florey – the suburb of Florey where this monitoring station is located was established in the 1980s consisting of detached homes on regular size blocks. The homes through this suburb are very original with very few homes built more recently. Of the homes that do have a wood heater installed, there would be a high probability that they are still the original non-compliant heater from the '80s and still in operation. The emission standard for wood heaters was first released in 1992 with an emissions limit of 5.5 g/kg. Therefore, it could be well argued that the majority of wood heaters in the suburbs surrounding the Florey monitoring station are non-compliant and producing upto 10 times more smoke than a modern compliant wood heater.

The monitoring station is circled in red in the satellite image below.



Source: ACT Government: ACTmapi

Unlike Civic, Florey does show a consistent increase in PM2.5 in the winter months as compared to summer over the last 8 years. However, if wood smoke is going to be attributed as a significant contributor to the increase in winter PM2.5, as described above, it is likely to be 30+ year old wood heaters that are the cause, and not modern sub 1.5 g/kg compliant wood heaters.



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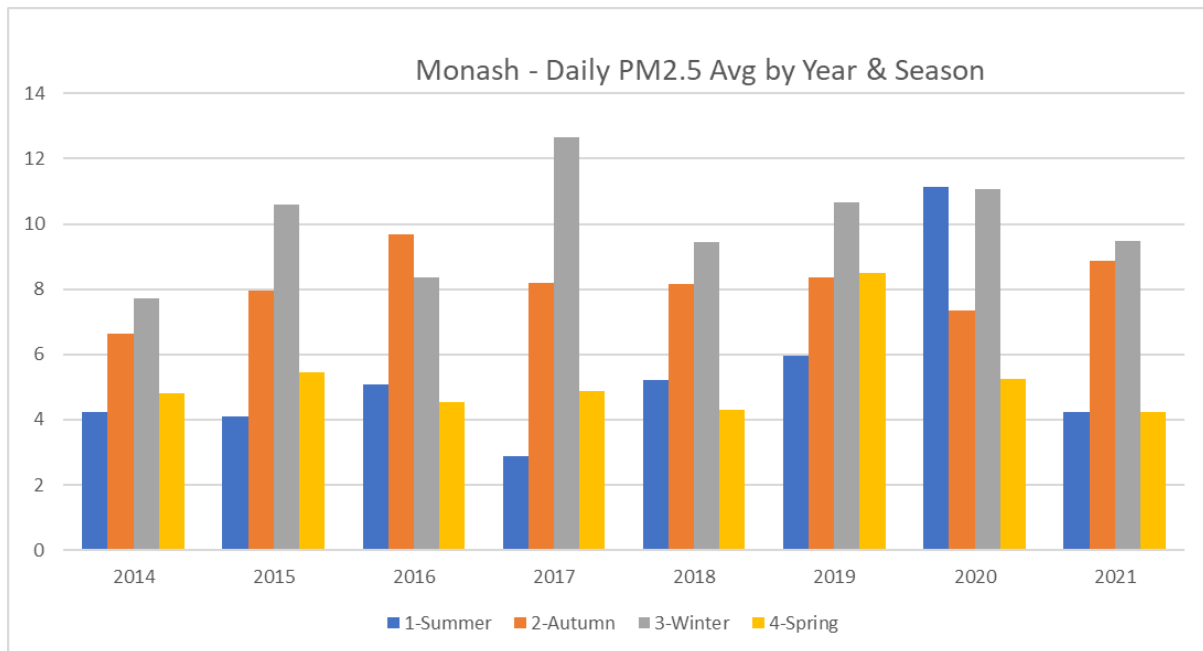
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Monash – the Monash monitoring station is surrounded by higher density semi-detached houses, townhouses, and unit blocks. These types of homes will have fewer wood heaters installed, and if so, more likely a lower emission heater based on age of the homes as compared to Florey. Monash is in the Tuggeranong Valley which is known for having issues with temperature inversions where any particulate matter is trapped in the valley which in turn has an impact on the air quality and data recorded at the monitoring station. The satellite image below shows the location of the monitoring station circled in red.



Sourced from Google Maps

Like Florey, the Monash site shows a consistent increase in PM2.5 levels in the winter months as compared to summer months in the graph below. On average, winter PM2.5 is greater at Monash than at Florey. Noting the type of residential housing surrounding the Monash station, it is a bias to attribute the increase solely on wood heaters. The topographic location and the temperature inversions are going to have a greater influence on the PM2.5 levels in winter than wood smoke. It is very unlikely that reducing emission standards to 1.0 g/kg on newly installed wood heaters will have any impact on the PM2.5 levels recorded at the Monash monitoring station.

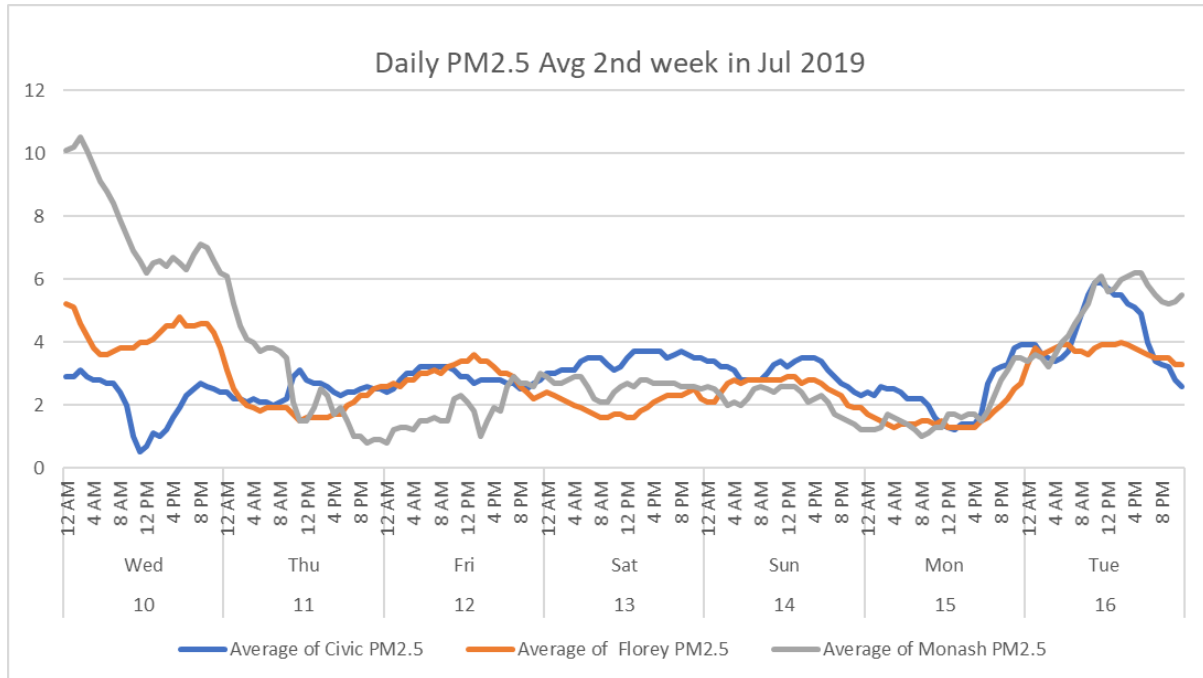


PM2.5 data analysis in winter

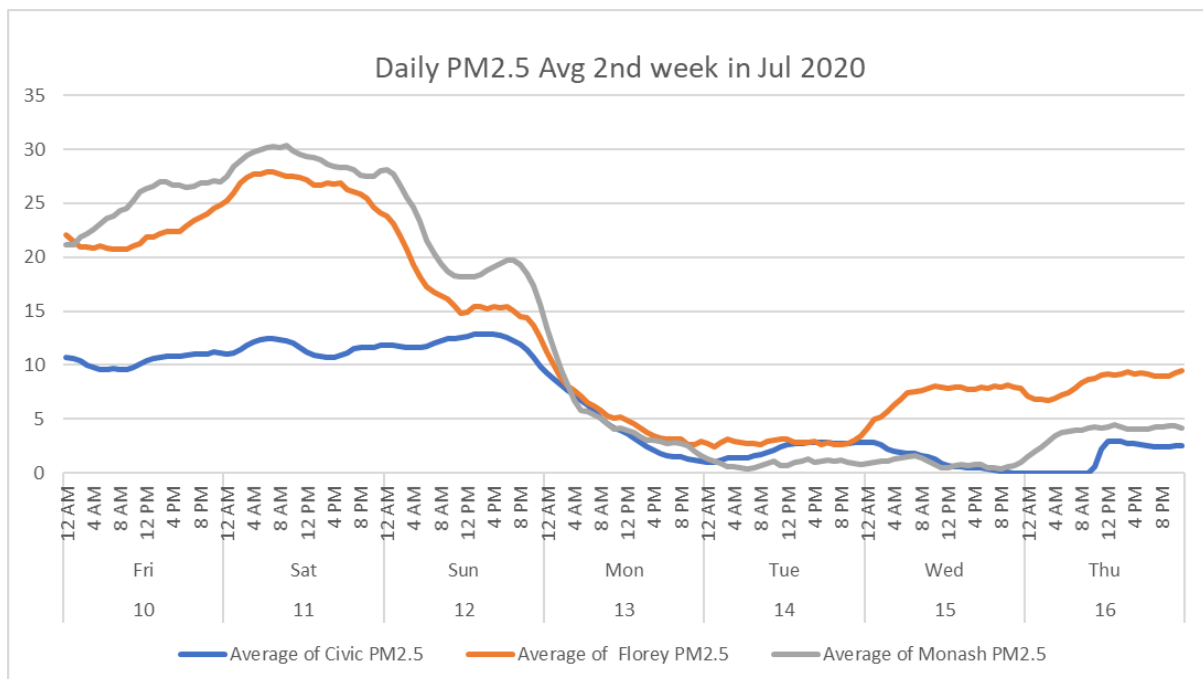
If we were to analyse the PM2.5 data by hour for a given week in winter (in this case second week of the months of July and August), one might expect to see PM2.5 levels increasing, particularly in the evening, from Friday through to Sunday and then lower for the remaining week. Secondly, the influence of temperature inversions, common in the ACT, might show with PM2.5 levels increasing from midnight into the early morning when ambient temperatures drop below zero.

Below are three graphs from 2019 to 2021 showing hourly PM2.5 levels for the second week of July (2018 had incomplete data for comparison, and no reason for second week, could have been any week of July being analysed). If wood smoke was a significant source of PM2.5, then one would expect PM2.5 levels to increase from Friday evening through until Sunday night when residents are at home and the wood heater is in use. During the working week often alternative sources of heating are used instead of wood heaters.

In the 2019 graph, the peak PM2.5 levels are on Wednesday, and then drop to considerably low levels across all monitoring stations for the rest of the week. There is no rise showing for the weekend when one might expect wood heaters to be lit and wood smoke to have an impact.

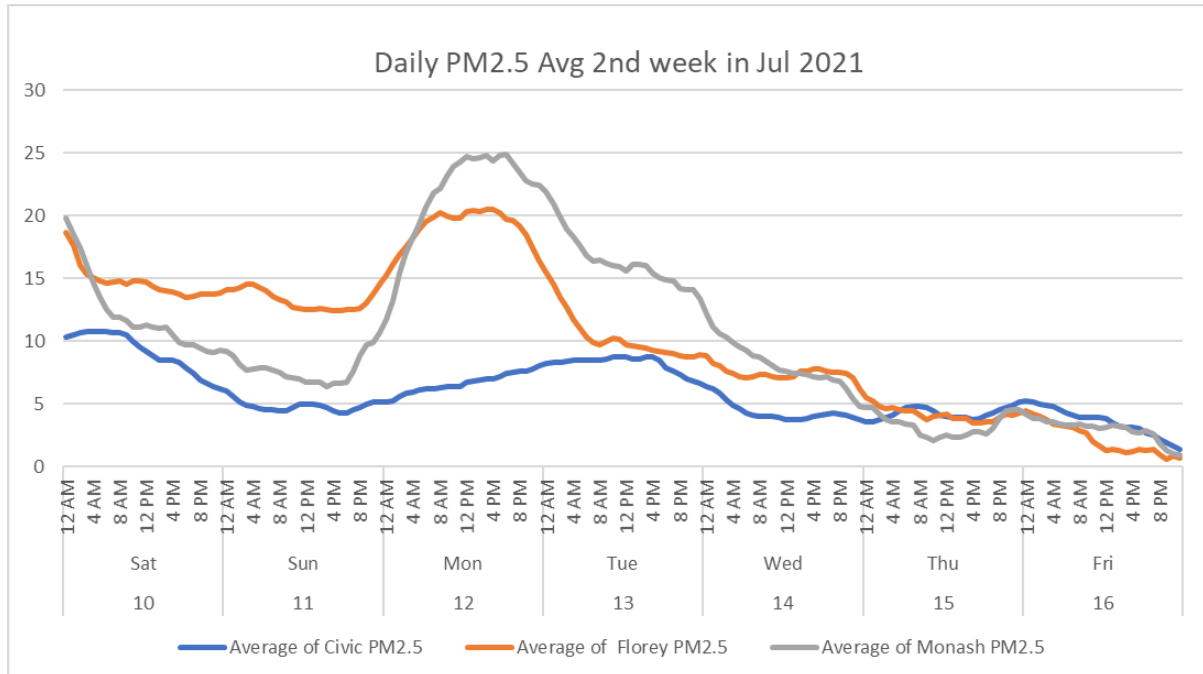


For 2020, there is a peak Friday to Sunday, and then drops going into Monday morning. This graph is typical if one was to attribute wood smoke as a significant contributor to the PM levels.



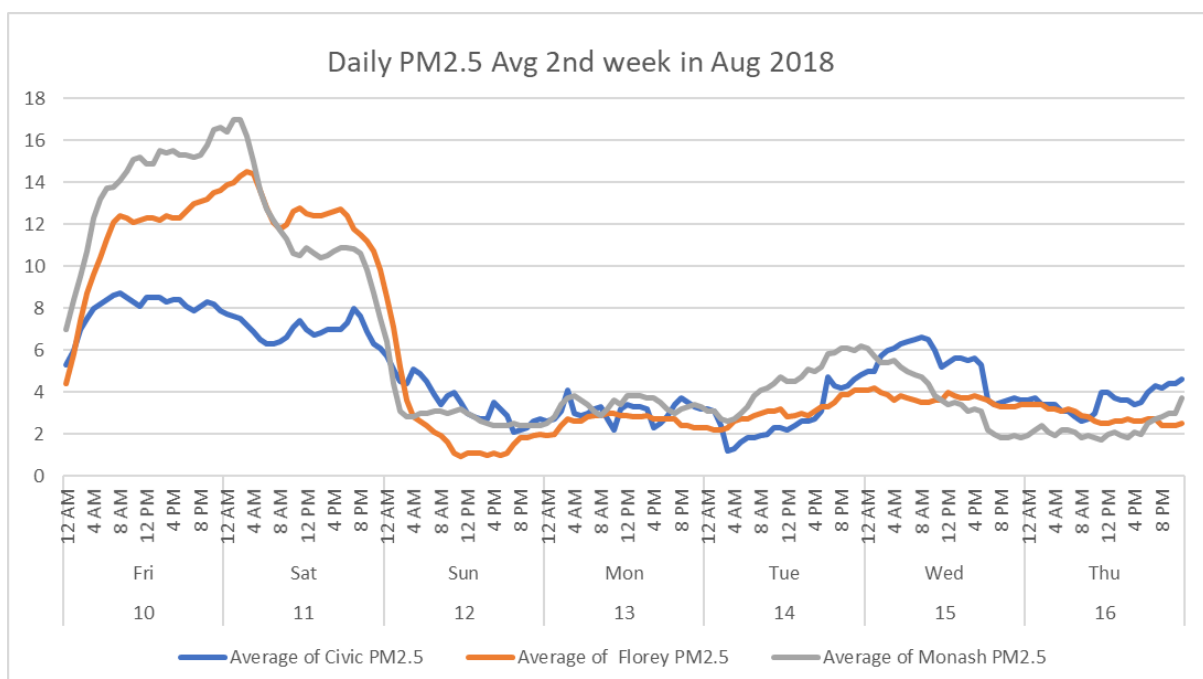


For 2021, the PM levels start rising from midnight Sunday night and then start dropping off late Monday night. Monash shows the greatest increase suggesting the influence of a temperature inversion and not wood smoke as the biggest contributor for the rise.



Now we will look at hourly PM2.5 levels for the second week of August from 2018 to 2021.

In this example, the peak PM2.5 is on Friday and Saturday but drops to background levels from midnight Saturday night. Sunday through to the end of the week show typical PM levels. If wood smoke with a contributor then one would expect the PM levels to continue in to Sunday as well before dropping. This is an example illustrating that the increasing PM2.5 levels are not solely due to wood smoke caused by wood heaters.



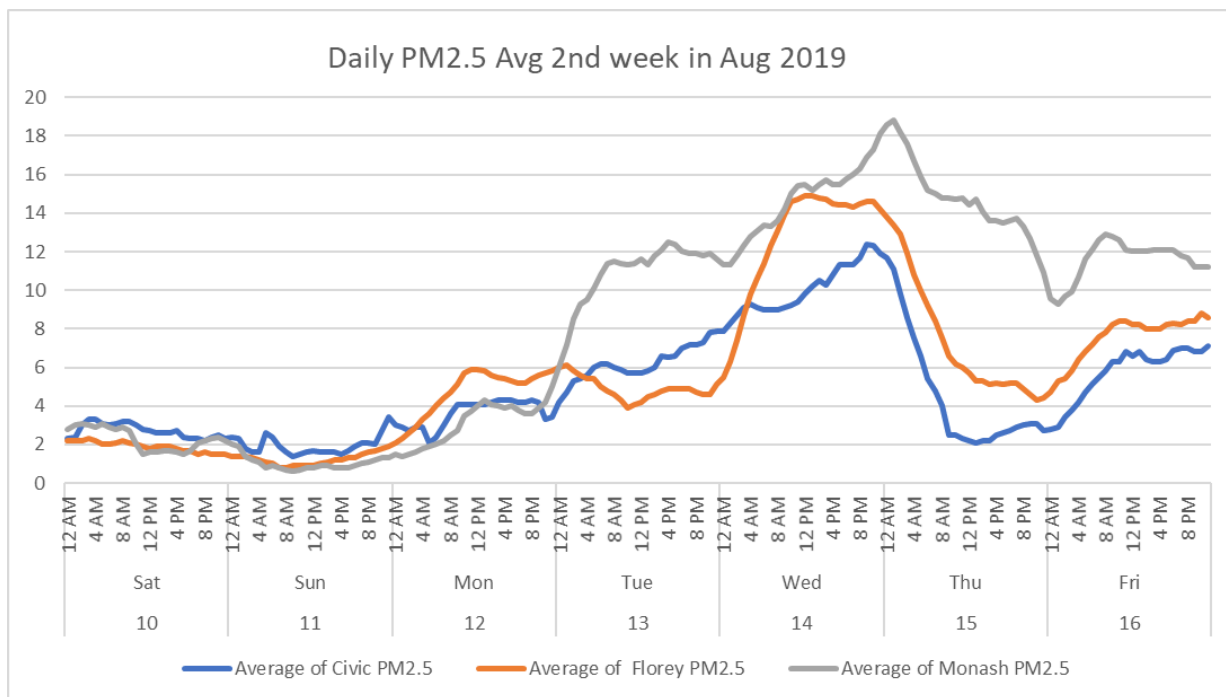
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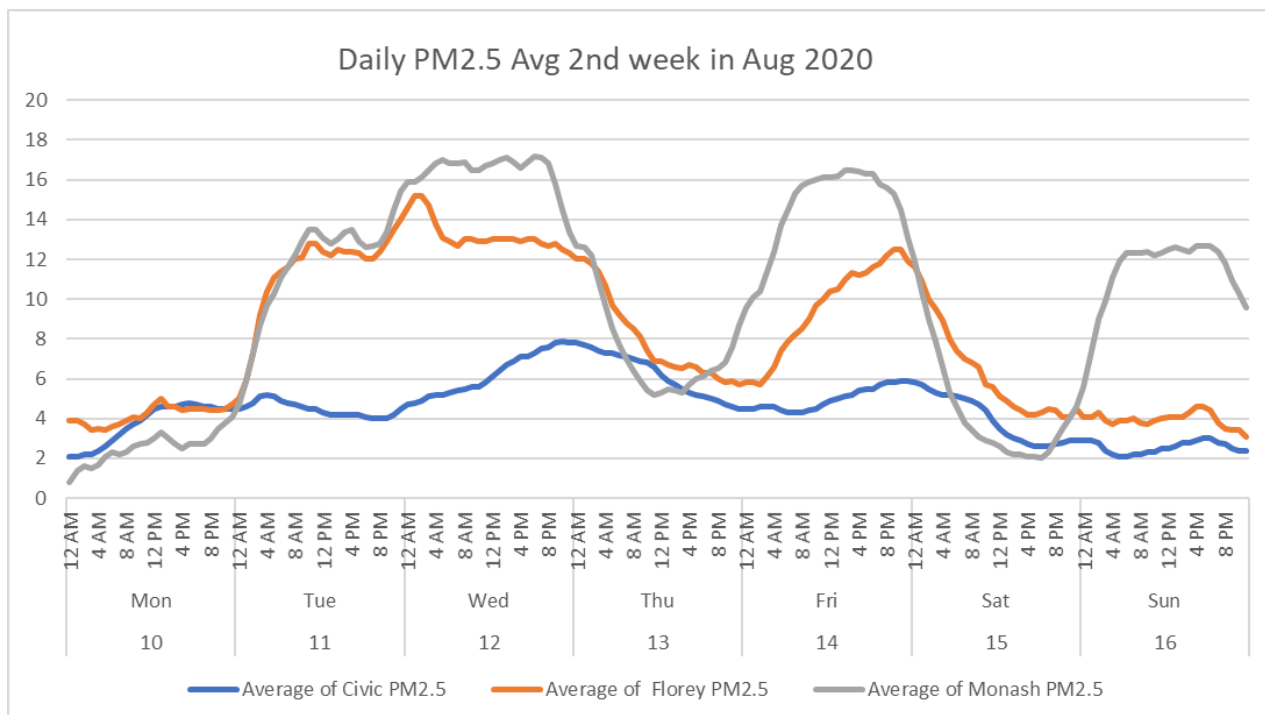
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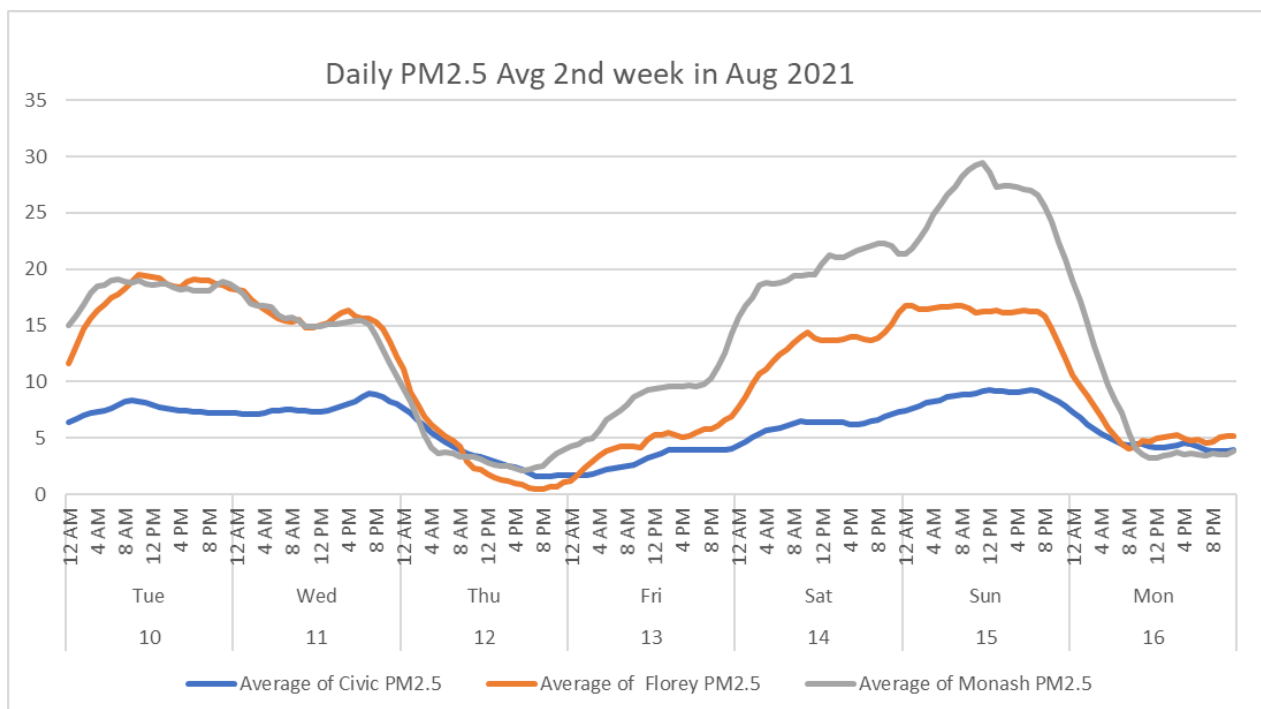
In the 2019 example, the PM levels start to increase from midnight Monday night, peaking late Wednesday before dropping down again. Saturday and Sunday show no increase in PM levels if wood smoke were to be a contributing source for PM2.5.



The 2020 example shows three peaks throughout the week with the lowest levels on Saturday afternoon. It would be hard to say that wood smoke is the major contributor in this example.



In the 2021 example, there is a spike on Tuesday/Wednesday, and another on Saturday/Sunday. If we look at the data for Florey and assume that wood heaters were lit on the weekend, the increase in PM2.5 on the weekend is no more than earlier in the week when wood heaters are less likely to have been lit but there was a temperature inversion. In this example, it could be argued that wood smoke on the weekend had no more impact on the PM levels than all other sources earlier in the week when they were trapped by the inversion. In other words, a temperature inversion without wood smoke results in just as high PM levels as when no inversion and there is wood smoke as a contributing source.



Based on these types of examples, granted wood smoke is a contributing source to the PM2.5 data recorded at the monitoring stations, however, it would be unjustified to say that the increase in PM levels in the winter months is primarily caused by wood smoke from wood heaters. It is the temperature inversion trapping all PM, including any wood smoke, that results in the increase in winter months.

This demonstrates the importance and value of the monitoring stations recording PM2.5 levels on an hourly basis so that this type of analysis can be carried out when trying to determine sources for the PM levels. Addition of another monitoring station with different influences would be advantageous when forming this type of analysis. For example, a station located in the Molonglo Valley where wood heaters have been banned would offer an excellent base line for PM2.5 where wood smoke caused by wood heaters is not a contributing factor. Note however, there is no regulation on the burning of wood in outdoor wood fired appliances such as pizza ovens, BBQ smokers, and firepits in such suburbs and may still have an impact on air quality.



The data recorded at the monitoring stations does not discriminate between non-compliant and emissions compliant wood heaters. They are all grouped together under the umbrella of producers of "wood smoke".

In reality, an emission compliant wood heater when operated correctly will show no visible smoke exiting the flue above the roof. Even when shut down for a slow burn, there should still be no visible smoke. These modern clean burning heaters are designed and tested to burn with no visible smoke being emitted. A 1980s non-compliant wood heater, as would be the case in many homes throughout the older suburbs of Canberra, is likely to have plumes of thick grey smoke emitting from the flue. It could be emitting as much as 10 times the PM2.5 compared to a compliant heater, or even more, since they can be shut down starving the fire of oxygen allowing them to smoulder away for days.

Action 2 - Review and strengthen wood heater emissions standards (to 1 gram particulate matter/kg of firewood burnt from 1.5) via building regulations, including investigating and implementing measures to phase out wood heaters that don't meet standards.

Proposed reduction to emission levels of wood heaters

The first emission standard for domestic solid fuel burning appliances (AS 4013) was introduced in 1992. The emission limit for a wood heater from that year was 5.5 g/kg. Prior to 1992, there was no emission standard for wood heaters. Many of the homes in Canberra, particularly around the Florey monitoring station were built prior to 1992. At this time, the types of heating available were limited and wood heaters were a low cost option that heated the whole house. There would be many of these non-compliant heaters still in operation today. The smoke produced by these heaters tarnishes the money spent and effort of manufacturers to develop modern clean burning wood heaters.

In 1999, AS 4013 became a joint standard with NZS 7403 to become AS/NZS 4013. The emission limit in this revision was reduced to 4.0 g/kg with 2 years from date of publish to implement.

This was revised again in 2014. The emission limit was further reduced to 2.5 g/kg by 2015, and then 1.5 g/kg by 2019.

The most recent data from the Australian Bureau of Statistics on main source of heating in households was released in 2014. For ACT, the total number of households is 152,500. Of this, it estimates that 5,000 homes or 3.3% use wood as their main source of heating. This is equivalent to one in 30 households using wood to heat their home.

With the latest emissions standards being introduced in 2019, it could be said that the majority of these 5,000 homes have a non-compliant wood heater installed. Reducing the emission limits further to 1.0 g/kg is not going to have any impact on these existing 5,000 homes. These older wood heaters need to be phased out/replaced with a compliant wood heater or an alternative source of heating if we want to see any type of improvement in air quality in winter.

Further to this point, a reduction in the emission standards will only have an effect on new build homes where a compliant heater is installed. This will occur in suburbs and sub-divisions where there are no monitoring stations. It will have no impact on the data recorded at the current monitoring stations, and therefore be deemed a failure for improving air quality in ACT in years to come.



The AHHA does not support any change to reducing the emission limit of heaters from 1.5 g/kg to 1 g/kg. We believe it will have very little impact. This reduction will only cause our manufacturers / distributors or importers to impose a great cost to the industry.

 Australian Bureau of Statistics									
4602055001DO001_201403 Environmental Issues: Energy Use and Conservation, Mar 2014									
Released at 11:30 am (Canberra time) Wed 3 Dec 2014									
Table 4 Main source of energy for heating, Households									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
ESTIMATE('000)									
Capital city									
Electricity	834.2	345.2	392.2	267.7	290.3	65.4			2,265.9
Gas	394.0	1,104.3	11.0	144.7	248.4	4.3			1,974.5
Wood	75.9	65.3	17.4	40.4	44.6	13.3			264.3
No heater used	381.6	59.2	356.2	34.8	146.3	2.6			1,032.7
<i>Total households</i>	<i>1,709.2</i>	<i>1,607.9</i>	<i>781.7</i>	<i>488.7</i>	<i>728.0</i>	<i>88.7</i>			<i>5,612.6</i>
Balance of state/territory									
Electricity	424.3	124.3	390.6	98.5	81.6	71.8			1,192.9
Gas	312.3	341.4	32.7	24.6	31.0	5.0			749.0
Wood	217.1	159.9	82.3	57.9	65.0	40.1			623.6
No heater used	173.4	6.1	535.7	12.4	65.0	1.9			805.5
<i>Total households</i>	<i>1,122.7</i>	<i>641.7</i>	<i>1,041.5</i>	<i>193.5</i>	<i>245.8</i>	<i>120.3</i>			<i>3,269.7</i>
Total of state/territory									
Electricity	1,258.3	469.1	780.9	366.4	372.2	137.9	6.0	68.2	3,457.3
Gas	705.2	1,443.5	41.7	170.7	280.6	8.6	2.3	70.5	2,719.7
Wood	290.7	228.1	101.7	98.2	109.8	53.9	1.3	5.0	889.0
No heater used	554.8	66.3	897.7	50.7	210.4	3.8	58.7	2.2	1,843.7
Total households	2,843.2	2,243.9	1,828.1	691.4	969.9	210.6	68.6	152.5	9,013.9
PROPORTION(%)									
Capital city									
Electricity	48.8	21.5	50.2	53.7	39.9	73.8			40.4
Gas	23.1	68.7	1.4	29.0	34.1	4.9			35.2
Wood	4.4	4.1	2.2	8.1	6.1	15.0			4.7
No heater used	22.3	3.7	45.6	7.0	20.1	2.9			18.4
<i>Total households</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>			<i>100.0</i>
Balance of state/territory									
Electricity	37.5	19.4	37.5	50.9	33.2	59.7			35.1
Gas	27.6	53.2	3.1	12.7	12.6	4.1			22.0
Wood	19.2	24.9	7.9	29.9	26.4	33.4			18.4
No heater used	15.3	0.9	51.4	6.4	26.5	1.5			23.7
<i>Total households</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>			<i>100.0</i>
Total of state/territory									
Electricity	44.3	20.9	42.7	53.0	38.4	65.5	8.7	44.7	38.4
Gas	24.8	64.3	2.3	24.7	28.9	4.1	3.3	46.3	30.2
Wood	10.2	10.2	5.6	14.2	11.3	25.6	1.9	3.3	9.9
No heater used	19.5	3.0	49.1	7.3	21.7	1.8	85.6	1.4	20.5
Total households	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sourced from ABS website -

<https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/A38DDA7F40718E43CA25750E00112A97?OpenDocument>

Other areas that can have an impact on improving air quality would come from the following actions:

a) Regulation of compliant heaters

The ACT Environment Protection Act 1997, section 2.4 *Sale of solid fuel-burning equipment* states that a person must not sell solid fuel-burning equipment for residential purposes unless it complies with AS/NZS 4013 (2.4 (1) (c)) and has a certificate of compliance (2.4 (1) (a)).

The AHHA has always been a strong advocate for heaters being compliant to the necessary standards. Members of the association have their compliant wood heaters listed for public viewing on the AHHA website along with a downloadable copy of the compliance certificate. This makes it easy and accessible for regulators to see which wood heaters are compliant. If it is not listed on the website, it is likely that the heater is not compliant.

There are a number of importers who bring wood heaters in, selling them online, and never get tested for compliance with AS/NZS 4013.

One has to simply go online to see that there is a market for second hand non-compliant wood heaters as well.

In other states, the regulation of compliant wood heaters being installed is much more heavily enforced. Councils request that a development application be submitted for the installation of a wood heater. The council inspector or building inspector is then obligated to sign-off during inspection that the heater is compliant to current emission standards and has been installed in accordance with AS/NZS 2918, the installation instructions and corresponding test report.

This is an example where ACT could enforce a similar regulation on the installation of compliant wood heaters.

The introduction of abatement notices will go a long way in ensuring consumers use their wood heaters correctly. Without guidelines, local jurisdictions might be coerced into unnecessary studies by individuals or groups with personal dislikes of wood heaters or with possible commercial benefit through reduced wood heater use.

The industry commits to reducing the amount of emissions produced by wood heaters by working collaboratively with regulators and stakeholders. The wood heating industry proactively shows leadership through stringent research, testing and certification in support of its position. It is when stakeholders such as importers and second-hand sellers who do not follow the regulations undermine the wood heating industry.

Some of the common complaints and issues that the AHHA have dealt with the public are:

- Poor operation from users of wood heaters – eg. Not choosing the correct firewood, regular maintenance
- Unqualified installers completing the installation – eg. Incorrect Installation in accordance with AS/NZS 2918 can affect the amount of wood smoke emitting from the flue.



b) Outdoor wood burning

There is currently no policy or regulation on the burning of solid fuel in outdoor equipment in the ACT. The closest thing on the ACT Environment Protection Act 1997 is:

Part 2.3 Offences relating to fuel-burning equipment

2.3 Emission of pollutants in excess of prescribed concentrations

(1) A person must not use, or cause or permit to be used, on any premises, a fuel that contains more than the prescribed proportion of a prescribed constituent unless the activity is authorised by an environmental authorisation.

(2) A person who contravenes subsection (1) commits an indictable offence.

Whereas for example in South Australia in the Environment Protection (Air Quality) Policy 2016 it states a person can only carry out burning activities within a metropolitan council area when :

- (i) lighting or maintaining a fire using charcoal, dry wood or other dry plant material for the purpose of preparing food or beverages;
- (ii) burning charcoal (but not wood or other plant material) in a brazier, chiminea or fire pit for domestic heating;

(Refer to Part 2 – Air quality measures, Division 1 – Burning offences, 5 – Burning in the open in council areas).

With no regulation on the burning of wood in outdoor settings, whether that be firepits, pizza ovens, BBQ smokers, or chimineas, and no data on how much they might contribute to overall wood smoke, it is unreasonable to blame all wood smoke being generated by wood heaters.

Tighter regulation on outdoor wood burning would have an immediate impact on the wood smoke issues in ACT and the data recorded at the monitoring stations. More so than reducing the emission levels on wood heaters.

c) Incorrect Installation

Many installers are not qualified to install wood heaters. The AHHA often identify those installers who are not certified will install non-compliant heaters. In-service operations and replacement of consumable components within the wood heater are important for the heater to operate at its optimum.

The AHHA has developed an online course in conjunction with Pointsbuild - a Registered Training Organisation. This course is for those who wish to install wood heaters, service personnel and council staff who would like to understand the installation of wood heaters to enable them to better respond to complaints in a more informed manner. The details of this course can be found here <http://www.pointsbuild.com.au/ahha-installers-program>.

The AHHA strongly encourage the enforcement of more qualified installers. We believe we can achieve this by recognising the AHHA Installers Course to be a qualification. The AHHA seek your assistance and are willing to working with other regulatory bodies to achieve this outcome

The Victorian Building Authority (VBA) has strict protocols for safe installation requirements for Solid Fuel Heaters (SFHs) that in turn could be applied to the ACT. More information can be found here - https://www.vba.vic.gov.au/data/assets/pdf_file/0004/98518/7.01-Mechanical-Services-Solid-Fuel-Heaters.pdf

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d) Phase out of non-compliant wood heaters

As mentioned above, older non-compliant appliances that do not meet any Standards have never been properly regulated.

The AHHA has previously worked with other Australian jurisdictions to implement voluntary change-out programmes for old wood heaters. A change-out scheme can be implemented that outlines practical concerns with banning old units but ensuring that State EPA's manage the change-out program and removal of the non-compliant heater. The industry believes this is an excellent and proactive mix of government and industry working together towards improvement of air quality.

An example where this has been done recently was in the Singleton and Muswellbrook council areas. Both councils offered a \$1,500 rebate to replace an older non-compliant wood heater with a compliant heater or an alternative form of heating.

Part of this project offered a \$50 rebate when the homeowner got their flue cleaned professionally, as a clean flue allows the wood heater to burn more efficiently and cleanly, producing more heat and less smoke.

Along with this further funding was available to education to the community about health impacts of wood smoke and correct operation of wood heaters, and to encourage the replacement of older wood heaters that are not compliant with current standards.

During the project, a survey was conducted to better understand factors influencing household heating choices in favour of continued use of wood heaters and why it was difficult to switch users to cleaner forms of heating. Some of the responses include:

- Wood heaters have been an integral part of living in the Upper Hunter for many years
- Fuel (wood) is available free to those who either live on or have access to properties
- Wood heaters are considered the most efficient and cost-effective means of home heating
- Wood heaters are considered more versatile than alternatives
- The appearance and ambience of wood heaters is regarded as far superior to alternatives
- Wood heating is connected to childhood memories which some want to rekindle
- It is seen as expensive to replace and run any alternative to a wood heater
- Most see no apparent or convincing enough reason to change what they are currently doing
- There is no town gas in the area and bottled gas is expensive
- The only real alternative (reverse cycle air conditioning) is considered unaffordable and unappealing

Only 4% of respondents in the household survey were interested in replacing their wood heater with an alternative. This increased to 11% if offered a discount to replace their wood heater with a different form of heating.

Sourced from Upper Hunter Wood Smoke Community Project – Final report NSW Environment Protection Authority 2016

Education would have to be a big part of any buy-back scheme to convince households of the benefits of a change-out scheme of older wood heaters.



AHHA recommendation:

The AHHA would recommend that at the point of sale of a house the vendor must ensure that the wood heater meets the current standards on emissions and efficiency, if not it must be replaced with a compliant wood heater or removed. On average, a house is turned over every seven years. This would mean that within seven years, the majority of non-compliant wood heaters could have been phased out.

This type of regulation is no different to the current pool fencing program to bring all homes up to standard with regards to safe pool fencing.

Another example is the requirement for a roadworthy certificate to be able to transfer ownership of a car. This ensures that the majority of cars on the road are roadworthy.

Action 3 - Evaluate the Burn Right to Tonight campaign; the Wood Heater Replacement Program; and the efficacy of measures to ensure that firewood sold is seasoned, sustainably sourced, and meets compliance with Government recommended wood burning practices.

To support further consumer and regulator education, the AHHA has produced a series of [educational short videos](#) to engage and inform on the proper use of operating and maintaining a wood heater. These videos are freely available on the AHHA website and include important aspects such as using the correct firewood and how to correctly load the fire.

The AHHA has encouraged governments to consider comprehensive consumer education programs and to work with industry to achieve the desired outcomes. Such programs run by local councils in the past have proved very successful.

The wood heating industry will continue to proactively show leadership in tackling the problems of wood smoke emissions. It is in every stakeholder's interest to do so.

The AHHA support the Burn Right to Tonight Campaign which has been running since 2001, and strongly encourage to introduce the "change-out" scheme. The AHHA will work together with other stakeholders to ensure that the correct education and resources are available to consumers.

The major benefits of wood heating is that it uses a renewable and sustainable fuel. Many of the homes that use wood heating as their main source of heating do so because of the higher cost of alternatives such as gas or electricity. In some areas, natural gas is still not available increasing the cost even more. Wood offers a viable alternative for these families who would otherwise struggle to heat their homes effectively and keep their family warm.

For over 25 years, the AHHA has been a financial supporter of Landcare Australia and its programs. Wood heating is the only viable sustainable fuel source for home heating in Australia and the AHHA believes that Landcare Australia is an important enterprise worthy of our ongoing support.

The following list of actions has been taken from the ACT State of the Environment report, produced in 2019 by the Commissioner for sustainability and the environment.

Key actions by the ACT Government:

- Action 1 – continue to promote the replacement of wood heaters, particularly in the Tuggeranong Valley.
- Action 2 – increase the community's uptake of public and active transport to reduce private vehicle emissions.
- Action 3 – increase the number of National Environment Protection (Ambient Air Quality) Measure compliant air quality monitoring stations to improve the assessment of localised air pollution issues.
- Action 4 – improve knowledge of the impacts of air pollution on human health and associated costs to the health system and economy.
- Action 5 – undertake an assessment of air pollutant emissions from diffuse sources to update the National Pollutant Inventory data from 1999.

The AHHA endorses these actions and believes that following through on them will have an impact on the improved air quality in ACT.

Finally, the management of wood smoke can be broken down into a framework which allows resources to be focused on relevant areas that are going to have most impact while still maintaining the overall framework and with the ultimate aim of improving air quality.

1. Regulation and enforcement
 - Wood heater audits
 - Powers and enforcement of the Environment Protection Act
 - Smoke abatement notices
2. Education
 - Information to raise community awareness
 - Council support
 - Media
 - Education material
3. Economic incentives
 - Council grants
 - Wood heater replacement programs
 - Chimney cleaning rebates
4. Research
 - Collaboration with research bodies to understand impacts and sources
 - Better designed wood heaters.



Thank you for the opportunity to provide this submission.

If you have any further questions regarding the submission, please do not hesitate to contact us at homeheat@homeheat.com.au

Yours sincerely,

Sch 2.2(a)(ii)

Ashley Stride

Chairman of the Australian Home Heating Association Inc. (AHHA)

From: [REDACTED]@homeheat.com.au
Sent: Tuesday, 23 September 2025 12:26 PM
To: Walters, Daniel
Cc: Power, David; [REDACTED]; Bastos, Diego
Subject: RE: RMIT research project into wood heatersBastos, Diego <Diego.Bastos@act.gov.au>r emissions
Attachments: RMIT Phase 2 - Modernising-Testing-and-Emission-Profiling-of-Wood-Heaters.pptx

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Everyone,

Attached is a summary of the Phase 2 proposal that was submitted by RMIT & Deakin university to the Australian Research Council (ARC) for a funding grant.

I will go through along with Phase 1 of the project which is currently underway.

We will be interested in your views on the Phase 2 project and it's outcomes.

Thanks,

[REDACTED]

From: Walters, Daniel <Daniel.WALTERS@act.gov.au>
Sent: Tuesday, September 16, 2025 1:10 PM
To: [REDACTED]@homeheat.com.au
Cc: Power, David <DAVID.POWER@act.gov.au>; [REDACTED]@scandiagroup.com.au; Bastos, Diego <Diego.Bastos@act.gov.au>
Subject: RE: RMIT research project into wood heatersBastos, Diego <Diego.Bastos@act.gov.au>r emissions

OFFICIAL

Hi Tim

Happy to, next Tuesday 23rd pm (1pm onwards) is free for now, I'm chairing the next meeting of our jurisdictional wood heater group on 16 October 1.00-145 pm (AEST) which could be good opportunity to present to jurisdictions.

Cheers

Daniel Walters

Senior Director| Environment Protection, Biosecurity and Rural Services Branch
Environment, Heritage and Parks Group | City and Environment Directorate | ACT Government

Ph: (02) 6207 6334

[email: daniel.walters@act.gov.au](mailto:daniel.walters@act.gov.au)

<https://www.act.gov.au/environment>

Please consider our environment before printing this e-mail.



From: [redacted]@homeheat.com.au [redacted]@homeheat.com.au>

Sent: Tuesday, 16 September 2025 12:47 PM

To: Walters, Daniel <Daniel.WALTERS@act.gov.au>; [redacted]@scandiagroup.com.au>

Subject: RMIT research project into wood heater emissions

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Daniel,

Would you have time in your calendar for a meeting with [redacted] and myself to discuss an upcoming research project being headed by RMIT and Deakin Universities titled "Modernising Testing and Emission Profiling of Wood Heaters"?

It would be great to present to yourself the project at a high level, get some initial feedback so that we can then arrange a follow up meeting with relevant EPA regulators at which we'd get the professor from RMIT to present the research project in greater detail.

This is a 3 year project with a \$2M budget being headed by professors and senior research scientists and engineers from RMIT and Deakin universities.

What is your availability like for a 1 hour meeting either this week (excluding Friday) or next week?

Kind Regards,



[Redacted]
General Manager

Phone: [Redacted]

Email: [Redacted]@homeheat.com.au

Website: <https://www.homeheat.com.au/>



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