



**ACT**  
Government

Environment, Planning and  
Sustainable Development

Dr Sophie Lewis  
Commissioner for Sustainability and the Environment  
GPO Box 158  
CANBERRA CITY ACT 2601

Via email [Sophie.lewis@act.gov.au](mailto:Sophie.lewis@act.gov.au)

Dear Commissioner

## **Investigation into Environmental Harm of Woodfire Heater Smoke – Revised Draft Report**

I refer to your email of 5 December 2022 where you seek feedback on the above report. Thank you for making a copy of the revised report available for review by the Environment, Planning and Sustainable Development Directorate.

I note and acknowledge that the revised draft report has been edited to reflect much of the previous feedback of EPSDD. Further comment on the revised report is offered at Attachment A to this letter.

I trust the further feedback is helpful to allowing you to finalise your report. Please contact me if you require further information on any of the feedback attached.

Yours sincerely

Bren Burkevics  
Executive Group Manager  
Environment, Heritage and Water Division

12 December 2022

## 1.2 – Background to Investigation

1. The responsibility for the *Bushfire Smoke and Air Quality Strategy 2021-2025* does not rest solely with the Environment, Planning and Sustainable Development Directorate as discussed. It is a whole-of-government strategy that rests with several directorates and Ministers.
2. EPSDD is also responsible for strategic planning and leasehold system including air quality assessments which have restricted wood heater installations in new development areas. It is also responsible for building policy and regulation for wood heater installations.
3. The Chief Minister, Treasury and Economic Development Directorate additional is responsible for administering building regulations for installation of wood heaters.
4. ACT Health Directorate is responsible for ambient air quality monitoring and public reporting of results in real time, assessing air quality and issuing public health alerts, if required.
5. The image in 1.2 has figures in relation to PM2.5 are not referenced. The mention of noise complaints in the lower part of the diagram is irrelevant to this investigation and should ideally be removed.

## 2.2 Air quality monitoring in the ACT

6. This section discussed that the “The limited number of AAQ NEPM compliant monitoring locations in the ACT means that levels of air pollutants cannot be identified for many areas of the ACT.” For completeness, the report should acknowledge that the number of AAQ NEPM stations in the ACT is compliant with the AAQ NEPM minimum requirements for performance monitoring stations.
7. This section notes the limitations of the fixed air monitoring stations for investigating smoke complaints due to their locality. This is a known limitation. ACT Health Directorate has several actions under the *Bushfire Smoke and Air Quality Strategy 2021-2025*, in relation to strengthening measures to address air quality impacts of wood heaters. This includes investigating the expansion of the air quality monitoring network using low and medium-cost sensors:
8. Population Health Division within ACT Health Directorate is undertaking a study to evaluate options for expanding the air quality monitoring network using distributed and targeted deployment of low and medium cost sensors. The study will provide data to evaluate the reliability, accuracy, and limitations of the additional sensors in comparison to the existing three fixed site testing stations. In addition, ACT Health is exploring options with interstate governments and relevant organisations to access cross jurisdictional data and expanded data sets to draw forecasting intelligence from, to improve their forecasting capability.
9. Under 2.1.2, the report notes "In NSW and ACT, the number is estimated to reach 940 deaths each year with a corresponding 13,956 YLL." Suggest that it be made be made explicit that this number is ACT & NSW combined.

10. Under section 2.3 a paragraph discusses that exposure to PM2.5 is "linked to a range of adverse health impacts including cardiovascular and respiratory illnesses, strokes, cancer, dementia, premature births, and complex developmental conditions such as autism, attention deficit and reduced IQ in children". The reference for this statement is an 'Inquiry into regulation of building standards, building quality and building disputes'. There is no specific reference for the statement about health outcomes in this inquiry document. This statement should be correctly referenced or changed.
11. The AAQ NEMP health based standards were strengthened in Dec 2015 and based on available international knowledge at the time. The standards for Particulate Matter (PM2.5 and PM10) are due to be reviewed in 2025 and will consider the 2021 WHO guidance in developing Australian standards. Details of the 2015 update to the AAQ NEPM can be found at: [National Environment Protection \(Ambient Air Quality\) Measure - DCCEEW](#). A copy of the 2021 WHO Guidelines can be found here: [9789240034228-eng.pdf \(who.int\)](#)
12. Figure 2 illustrates the monthly average daily maximum PM2.5 levels from the Monash monitoring section, however analysis suggest this may be inaccurately presented, please see Attachment A. To ensure the reader of the report understands this graph, the report should include the daily and annual average standard and trend analysis over time since monitoring has been undertaken in ACT for all monitoring stations, as Government programs and initiative have been in place for longer than 7 years.
13. Figure 3 – Suggest the diagram include a caveat note as to why bushfires excluded but dust storms included.

#### **Section 4 – Wood heater usage in the ACT**

14. Section 4.1 - The ABS data includes all dwelling types including units which generally don't / can't have wood heaters. Data should be further interrogated to determine to provide accurate representation of potential numbers. Wood heaters restricted in Molonglo Valley (except Wright), Dunlop and East O'Malley so dwelling data need to be excluded for these postcodes.
15. Section 4.2 - Survey sample size very small and engaged / targeted. ABS data dated and noted high margin of error and details numbers for those who use a wood heater as their primary heating source which could explain the discrepancy in part, additionally population has increased significantly since ABS data collected but high proportion of unit developments as well which wouldn't have wood heaters.

#### **Section 5 – Wood heater Management in the ACT**

16. On page 14 the word "banning" is used. Banning implies they can't be installed. The term restricted should instead be used on the basis that approval to install a woodfire heater can be sought from the ACT Planning Authority.
17. 5.1 - The heading incorrectly references the title of the Act (Environment Protection not Environmental Protection).
18. *Environment Protection Regulation 2005 (p.14)* - the Chief Health Officer doesn't have any responsibilities for the sale or supply of wood unless it is contaminated.
19. Second Paragraph - Should clarify that this only relates to sale and supply of painted / treated firewood 14A and sleepers as per s 14(i), sentence implies relates to sale and

supply of all wood, suggest reworking to clarify. For example - As per section 14 (i) and 14A of the Regulation, firewood merchants are required to gain written agreement from the EPA and the Chief Health Office to sell or supply potentially contaminated firewood and are required to comply with the conditions set out in section 14.

20. This section should mention for completeness that the wood heater standards and requirement to provide to customer and report annually to EPA on species and source of wood. Suggest all requirements included as detailed in section 14 of the Environment Protection Regulation 2005.
21. The report discusses the proposed amendment to the *Human Rights Act 2004* to include a right for a healthy environment. The report is speculating on whether the Act will have implications for the continued installation and use of wood heaters. The word “has” should be changed to “may” noting the details of the Bill is yet to be finalised.

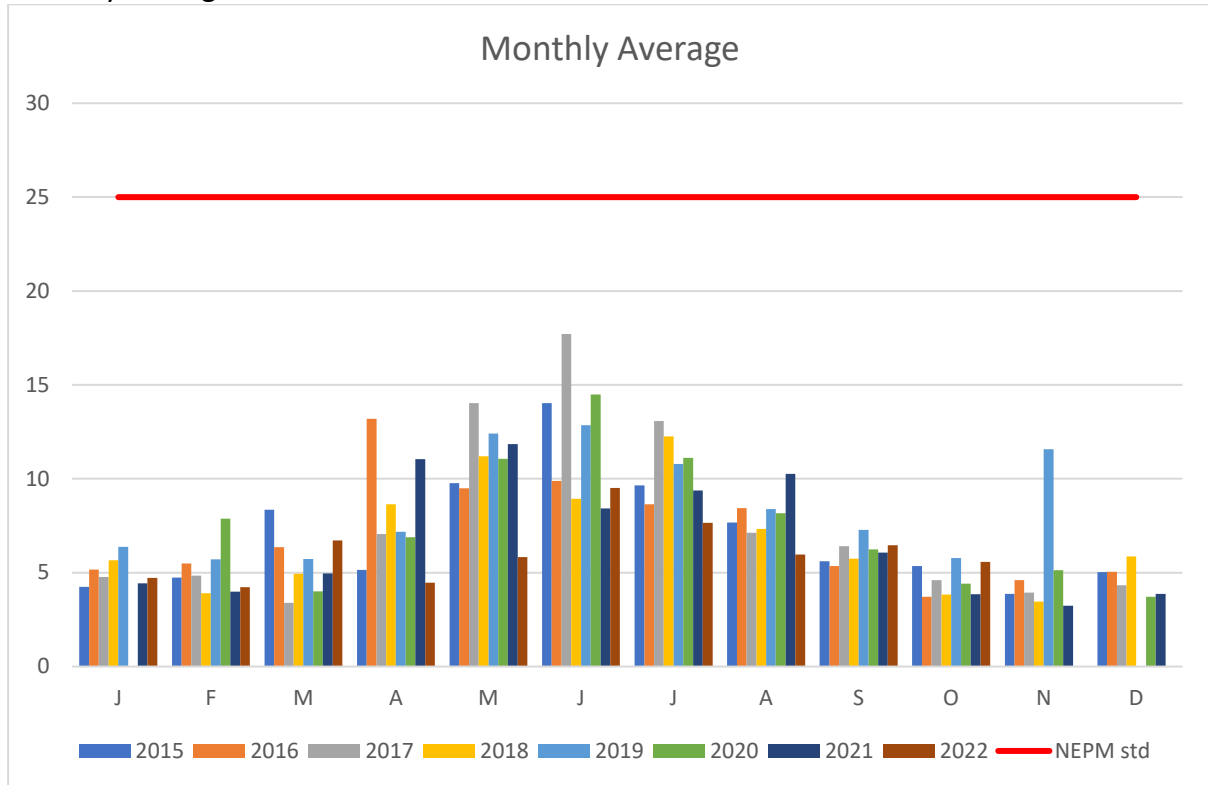
### **6.1 Effective of wood heater policies**

22. The report makes the following statement “During this investigation, OCSE was advised by ACT Government officers that *“Members of the Canberra community are able to protect themselves from the risks of woodfire smoke by staying indoors.”*<sup>1</sup> Not only does this approach place an undue responsibility and unreasonable expectation on individuals, but it is also manifestly inadequate.”
23. The report then references the following extract ACT Bushfire Smoke and Air Quality Strategy “For many people it was impossible to keep smoke out of their homes” during the Black Summer bushfires of 2019-20. Given that many homes are not resilient to smoke pollution, smoke refuges for community are required.
24. The revised report is referencing two different smoke related issues. The first is woodfire smoke, the second is bushfire smoke from a significant natural disaster. This is not an effective argument.

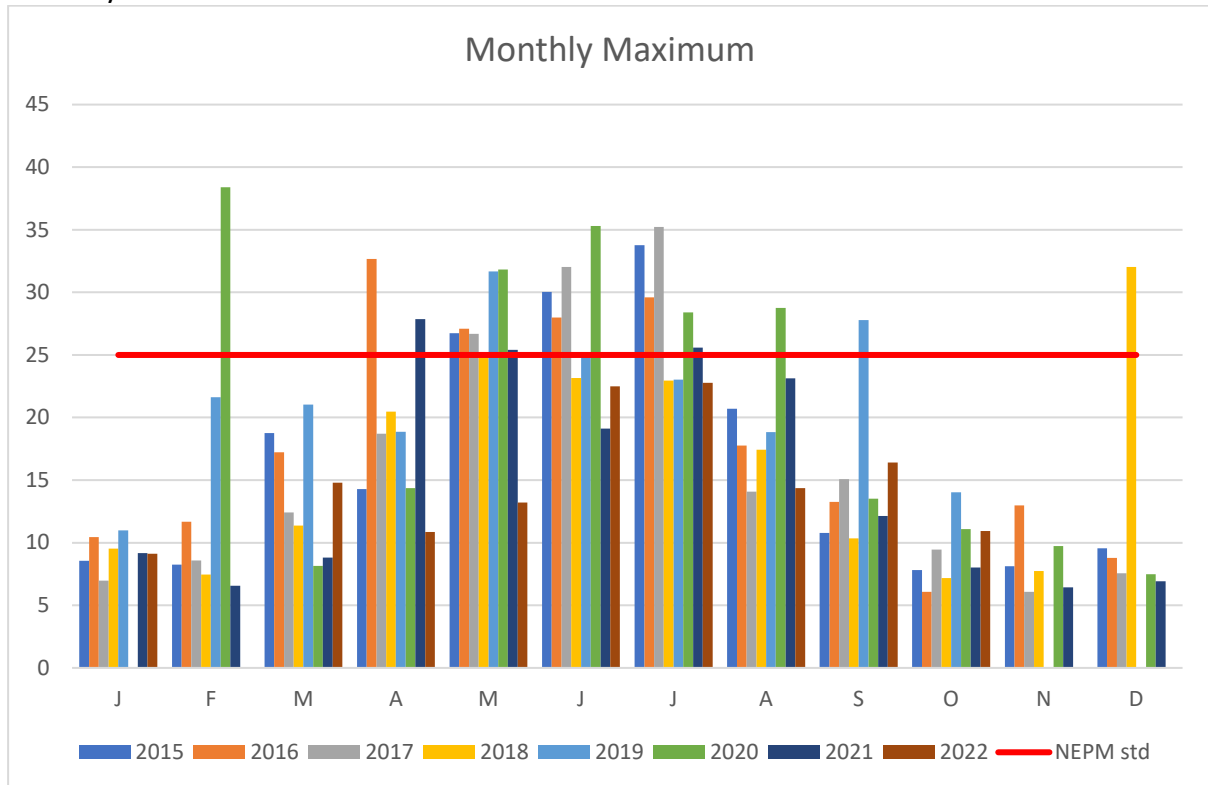
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<sup>1</sup> EPSSD response to OCSE draft Investigation report 30/11/2022.

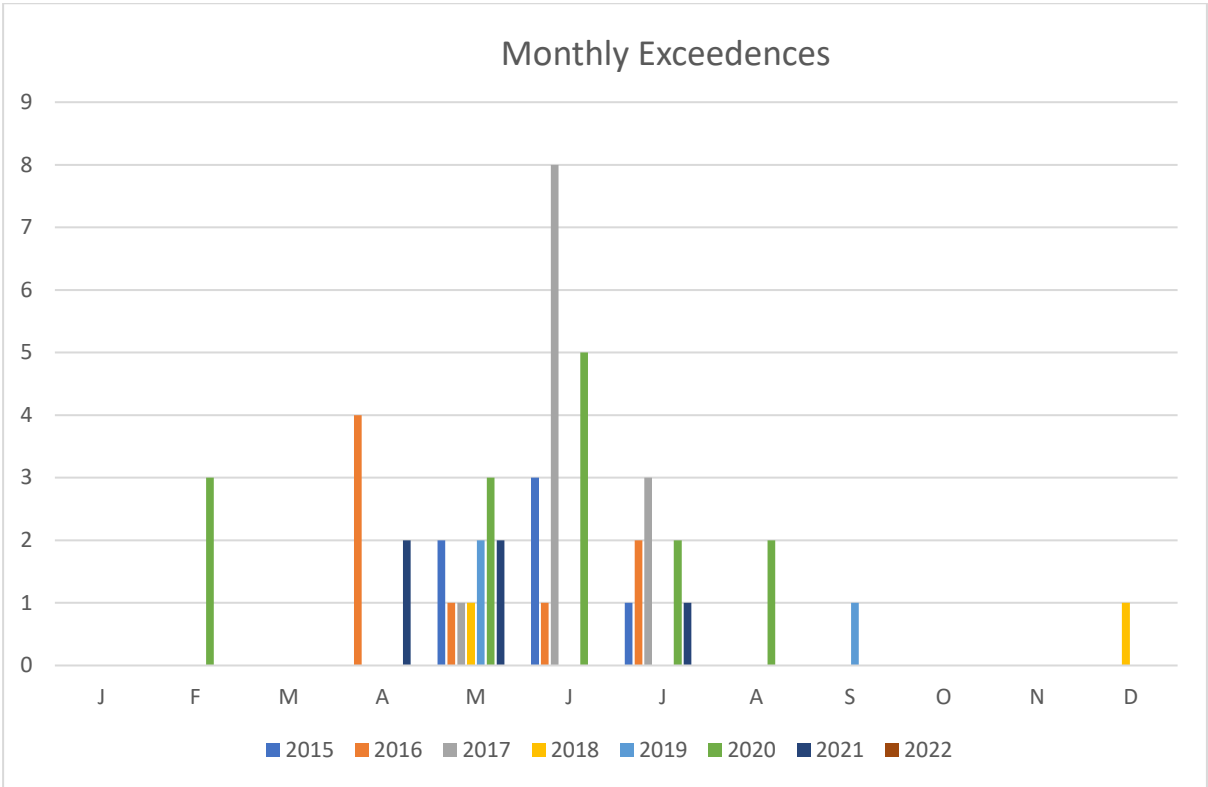
Monthly Average



Monthly Max



Monthly Exceedences



**From:** [Lewis, Sophie](#)  
**To:** [EPSDD Environment](#)  
**Cc:** [Burkevics, Bren](#)  
**Subject:** RE: Woodheater draft for feedback  
**Date:** Tuesday, 20 December 2022 9:02:00 AM  
**Attachments:** [Recommendations.pdf](#)  
[image001.jpg](#)

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OFFICIAL

Dear Bren,

Thank you for providing feedback. We have now finalised our report and have moved to the design phase.

I have attached our recommendations for you for your early consideration and look forward to discussing these with you.

I do note your auto-reply and hope you get a good break.  
Kind regards

Dr Sophie Lewis  
ACT Commissioner for Sustainability and the Environment  
(she/her)

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**From:** EPSDD Environment <EPSDDEnvironment@act.gov.au>  
**Sent:** Monday, 12 December 2022 12:34 PM  
**To:** Lewis, Sophie <Sophie.Lewis@act.gov.au>  
**Cc:** Burkevics, Bren <Bren.Burkevics@act.gov.au>; Walters, Daniel <Daniel.WALTERS@act.gov.au>  
**Subject:** RE: Woodheater draft for feedback

OFFICIAL

Dear Dr Lewis – Please find attached EPSDD feedback and comments on the Woodfire Heater investigation report as requested.

Thanks and Regards.

Stacey Coghill  
Conservation Officer

Conservator Support | Environment, Heritage & Water  
Environment, Planning and Sustainable Development Directorate, ACT Government  
Phone 02 6205 9274 | [Stacee.Coghill@act.gov.au](mailto:Stacee.Coghill@act.gov.au)  
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**From:** Lewis, Sophie <[ophie.Lewis@act.gov.au](mailto:ophie.Lewis@act.gov.au)>  
**Sent:** Monday, 5 December 2022 8:56 AM  
**To:** Burkevics, Bren <[Bren.Burkevics@act.gov.au](mailto:Bren.Burkevics@act.gov.au)>  
**Subject:** Woodheater draft for feedback

OFFICIAL

Dear Bren,

As requested, I have attached a revised draft that has considered feedback provided throughout this consultation period. In order to be considered in the final report, I will need feedback returned by end of 12/12/2022 and unfortunately we will not be able to accommodate further delays.

I am disappointed that my request for a review and input to the investigation draft report appears to have been construed as an invitation to dispute the science of air pollution impacts, to rebut the findings of the investigation and to make editorial comments on the report. This was not my intent in consulting with EPSDD on this matter, and is not the basis on which my Office seeks to work with the ACT Government. The report was provided to EPSDD at this early stage in order for directorate staff with technical expertise in these areas to provide data and information pertaining to woodfire heater pollution and management in the ACT.

As you will be aware from having read the report, investigations by my Office have relied on publicly available information about air quality and wood heater policy in the ACT, together with a range of scientific literature and public reports produced by other credible entities. What I was seeking from EPSDD was precisely the information your staff have pointed out is missing (for example, the number of wood heaters in the Territory). While the feedback has pointed out gaps and inconsistencies in some of the information presented in my draft report, it has provided very little data that would enable me to fill those gaps and make the report more accurate and robust.

I do note the comments regarding the Commissioner's legislation and my Office processes, and note that these are based on incorrect assumptions about the process we have undertaken to date, and around advice sought and received. In addition, I respectfully note that as an independent statutory office undertaking the drafting of a special report, recommendations are not provided to Government for input or feedback.

As already mentioned, this is a draft report which has not yet been through a rigorous proof-reading and referencing process by my team. Proof-reading and reference checking by EPSDD staff is not necessary.

Kind regards

Dr Sophie Lewis  
ACT Commissioner for Sustainability and the Environment  
(she/her)

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## **7. Recommendations**

This Investigation has found many opportunities to build on the *Bushfire Smoke and Air Quality Strategy 2021-2025* and address wood heater smoke issues in the Territory. This whole-of-government strategy provides a starting point for bringing together and strengthening the air quality monitoring, policy and regulatory aspects of managing wood heaters. The following Recommendations are to assist the ACT Government in further improving air quality on the ACT.

Recommendations 5-7 apply to the interim period before wood heaters are phased out.

### **Phase out of wood heaters**

1. Phase out wood heaters from ACT suburbs through the establishment of a target date for the replacement of wood heaters with electric alternatives in all ACT suburbs (excluding rural areas), as has been done for fossil-fuel gas. This should be supported through accessible financial support for lower income households.
2. Ban the installation of new wood heaters in all ACT suburbs (excluding rural areas), for both new and existing builds.
3. Establish a register of wood heaters in the ACT to determine the number and age of wood heaters.
4. Mandate the removal of wood heaters before a property in any ACT suburb (excluding rural areas) can be sold.

### **Education about wood heater risks**

5. Introduce mandatory labelling explaining the health risks associated with wood heater usage at point of sale for both wood heaters and firewood in ACT
6. Include explicit messaging about the health risks associated with wood heater usage in ACT Government education and communication activities (e.g. Burn Right Tonight program).

### **Strengthen compliance**

7. Develop and apply empirical criteria for determining environmental harm or nuisance from wood heater smoke, such as assessment of smoke composition and air quality monitoring at the affected sites, as part of EPA investigations.

### **2019 State of the Environment Report recommendations**

8. Reconsider responses to the 2019 State of the Environment Report's recommendations 21 and 22:

*21 Increase the number of National Environment Protection (Ambient Air Quality) Measure compliance monitoring stations, and*

*22 Urgently undertake an assessment of air pollutant emissions from diffuse sources to update the National Pollutant Inventory data (1999).*

FOI 23/038119 – EPSDD response to Applicant

Item	Report reference	Applicant's questions	EPSDD response
1	Pg 4 of the Wood Heaters Report says that wood heaters and controlled burns were responsible for 403 air pollution complaints for 2017/18 and 2018-19.	1.1 How many complaints specifically only related to wood heater smoke and not controlled burns?	See CMTEDD response at <a href="#">Freedom of Information 2023-106 (act.gov.au)</a>
		1.2 How many complaints related to each geographic district or suburb in Canberra?	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment
		1.3 Please provide emails and written correspondence from the ACT Health Directorate to the as it relates to Air Quality Monitoring and Office of the Commissioner for Sustainability and the Environment.	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment
		1.4 Please provide emails and written correspondence from the Environment, Planning and Sustainable Development Directorate to Office of the Commissioner for Sustainability and the Environment on air quality assessments, building policy and regulation for wood heater installations.	See document 1 – Letter from EPSDD to OCSE dated 12 December 2022.
2	Pg 11 of the Wood Heater Report only shows data on the Monash Monitoring station.	Can the ACT Health Directorate please provide the same graphs and data (ie figure 2 and 3) for the Civic and Florey monitoring stations for same period.	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment

Item	Report reference	Applicant's questions	EPSDD response
3	Pg 14 of the Wood Heater Report discusses general information on firewood. ACT Firewood merchants are required to report on firewood. via the following access Canberra form	Please provide emails and correspondence between Office of the Commissioner for Sustainability and the Environment and any ACT Government agency on firewood, and in particular the species and location of firewood, and whether it was from a plantation, non-plantation or salvaged. <a href="https://files.accesscanberra.act.gov.au/legacy/4335/Annual%20firewood%20report.pdf">https://files.accesscanberra.act.gov.au/legacy/4335/Annual%20firewood%20report.pdf</a>	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment
4	Pg 15 refers to a newspaper report on gathering firewood.	4.1 Please provide emails and correspondence between Office of the Commissioner for Sustainability and the Environment and any ACT Government agency on illegal collection of firewood. 4.2 How many instances of illegal collection of firewood have been prosecuted in the last 5 years? How many penalties have been issued in the same period?	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment
5	Pg 20 Fig 4 refers to Flow chart showing the steps that an EPA will take to determine if environmental harm is being caused by wood smoke.	5.1 How many infringement notices have been issued in the last 5 years? 5.2 In which geographic districts or suburbs in Canberra did infringement notices occur?	See CMTEDD response at <a href="https://www.accesscanberra.act.gov.au/public/foi/2023-106">Freedom of Information 2023-106 (act.gov.au)</a>

Item	Report reference	Applicant's questions	EPSDD response
		5.3 How many instances of education and warnings occurred in the same period?	See CMTEDD response at <a href="https://www.act.gov.au/act/act-2023-106">Freedom of Information 2023-106 (act.gov.au)</a>
		5.4 In which geographic districts or suburbs in Canberra did instances of education and warnings notices occur?	See CMTEDD response at <a href="https://www.act.gov.au/act/act-2023-106">Freedom of Information 2023-106 (act.gov.au)</a>
6	On Pg 21 there is reference to the EPA has emailing information to wood merchants operating in the ACT, informing them of the requirement to ensure that only well-seasoned wood be sold. Unseasoned wood is defined as containing more than 20 per cent moisture.	In their compliance activities, how many instances has the EPA found where firewood was not well-seasoned?	See CMTEDD response at <a href="https://www.act.gov.au/act/act-2023-106">Freedom of Information 2023-106 (act.gov.au)</a>
7	Pg 22 summarises the Air Environment Protection Policy was created to provide supplementary information and policies relating to the management of ambient air quality and pollutant emissions in the ACT.	What evidence has been provided by relevant Policy owner to the Office of the Commissioner for Sustainability and the Environment regarding the effectiveness of this policy?	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment
8	Pg 23 discusses the Burn Right Tonight program.	Please provide emails and correspondence between Office of the Commissioner for Sustainability and the Environment on the reach and effectiveness of the campaign and the program generally.	No information held by EPSDD or the Office of the Commissioner for Sustainability and the Environment

9	P28 OCSE investigation	Please provide the draft OCSE draft Investigation report 30/11/2022 and the EPSSD response to OCSE draft Investigation report 30/11/2022.	The OCSE did not provide a draft report to EPSDD on 30/11/2022.
10	Pg 30 I believe the proposed inclusion of the healthy environment right within the ACT's Human Rights Act has implications for the continued installation of and continued use of gas stoves and gas appliances, which are known to cause environmental harm.	In view of the commentary offered by the Office of the Commissioner for Sustainability and the Environment, does the Office of the Commissioner for Sustainability and the Environment have information or evidence or advice that distinguishes wood heaters from gas stoves and gas appliances used within homes noting that these appliances impact Asthma in children and emit significant PM2.5 particles	The report investigated wood heater policy in the ACT and did not investigate gas stoves or gas appliances. There is no information, evidence or advice on gas stoves and gas appliances that can be provided.
11	Pg 32 sets out the recommendations	Please provide emails and correspondence between Commissioner for Sustainability and the Environment and: - Environment, Planning and Sustainable Development Directorate - Chief Minister, Treasury and Economic Development Directorate - ACT Health Directorate as they relate to the draft recommendations and final recommendations of the Wood Heater Report.	OCSE did not provide its draft recommendations to EPSDD or other agencies. Recommendations were provided to EPSDD in an email dated 20 December 2022 (Document 2).