

Freedom of Information Publication Coversheet

The following information is provided pursuant to section 28 of the *Freedom of Information Act 2016*.

FOI Reference: CMTEDDFOI 2023-105

Information to be published	Status
1. Access application	Published
2. Decision notice	Published
3. Documents and schedule	Published
4. Additional information identified	No
5. Fees	N/A
6. Processing time (in working days)	19
7. Decision made by Ombudsman	N/A
8. Additional information identified by Ombudsman	N/A
9. Decision made by ACAT	N/A
10. Additional information identified by ACAT	N/A

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Please find online enquiry details below. Please ensure this enquiry is responded to within fourteen working days.

Your details

All fields are optional, however an email address OR full postal address must be provided for us to process your request. An email address and telephone contact number will assist us to contact you quickly if we need to discuss your request.

Title:
First Name:
Last Name:
Business/Organisation:
Address:
Suburb:
Postcode:
State/Territory:
Phone/mobile:
Email address:

Request for information

(Please provide as much detail as possible, for example subject matter and relevant dates, and also provide details of documents that you are not interested in.)

(1) Please provide the most up-to-date list of businesses which have undertaken to comply with the ACT Firewood Code of Practice, including the dates that each business was entered on the register. (2) Does the Government have statistics, or an estimate, of the total number of firewood merchants selling firewood to the ACT each year for the last 15 years (3) Each year for the last 15 years, what is the total amount in tonnes of firewood sold to the ACT and (a) what percentage of this is supplied by retailers compliant with the Firewood Code of Practice and (b) what is the percentage of this that is (i) hardwood, (ii) softwood, (iii) seasoned, (iv) unseasoned and (v) boxwood. (4) By the year, what are the geographic regions for the firewood and whether the source of the timber was plantation or non-plantation. (5) What auditing does the Government do of businesses that are registered as agreeing to the ACT Firewood Code of Practice, for example, to ensure they sell seasoned wood only and when were any audits last conducted. (6) Please provide data on the results of compliance checks carried out under the Code of Practice by year from 1999 to 2023. (7) What actions has the Environment, Planning and Sustainable Development Directorate - Environment Under the Freedom of Information Act 2016 I want to access the following document/s (*required field):

taken to avoid institutional failure where the processes and structures relating to the enforcement of laws and policies on wood heaters do not operate efficiently or effectively in other parts of the ACT Government? (8) What actions has the Commissioner for Sustainability and the Environment taken to avoid institutional failure where the processes and structures relating to the enforcement of laws and policies on wood heaters do not operate efficiently or effectively in other parts of the ACT Government? (9) Which ACT Governent Agency and ACT Govt Minister is responsible for the enforcement and regulation of the Wood heater emissions and efficiency standards and best practice management? (10) Over the last 5 years, what specific actions has the ACT Government taken to address the "Difficulty with enforcement of smoke standards" which Commissioner for Sustainability and the Environment discusses in her Investigation. Specifically, interested in any information on the lack of resources or inadequate co-ordination of enforcement in a manner that best makes use of the available resources. (11) Air quality in the ACT is generally excellent compared with other Australian cities and is considered clean by world standards. Over the last 15 years, has the ACT Government agency responsible for the Burn Right Tonight ever advised a Minister that the "Burn Right Tonight" campaign is not effective in improving air quality to safe levels in winter? Has this advice been explained in the Annual Report for the Agency? (12) Has the ACT Government agency responsible for the Wood Heater Replacement Program ever advised the responsible Minister that the Wood Heater Replacement Program has not been effective? Has this advice been explained in the Annual Report for the Agency? In what year did ACTEW AGL stop funding rebates for residents who installed gas heaters? What year did the program stop funding gas heaters? Does an industry or the ACT Government fund the Wood Heater Replacement Program? (13) What costing have been developed that describe the estimated costs for all trades for property owners to remove of wood heaters (and remediate the damaged area) before a property in any ACT suburb (excluding rural areas) can be sold? What assumptions are built into the costings? (14) What is the estimated cost to establish and maintain each year a register of wood heaters in the ACT to determine the number and age of wood heaters. (15) What is the estimated cost to 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. (16) What is the estimated cost urgently undertake an assessment of air pollutant emissions from diffuse sources to update the National Pollutant Inventory data (1999). (17) When will the Regulatory Impact Statement for the proposed rules mandating removal of wooden heaters be available publicly? (18) Which policy options to reduce the impact on wooden heaters were be eliminated as not feasible? (19 What is the estimated reduction in wood heater particulate emissions over the last 15 years in the ACT?

I do not want to access I already know that not all firewood sales occur at a fixed the following

documents in relation to my request::

business location, nor do I need information on the health costs that relate to PM2.5.

Thank you. Freedom of Information Coordinator

Our ref: CMTEDDFOI2023-105





FREEDOM OF INFORMATION REQUEST

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act), received by the Chief Minister, Treasury and Economic Development Directorate (CMTEDD) on 24 March 2023 in which you sough access to the following information.

Specifically, you sought access to the documents that provide answers to the below questions:

- 1. Please provide the most up-to-date list of businesses which have undertaken to comply with the ACT Firewood Code of Practice, including the dates that each business was entered on the register.
- 2. Does the Government have statistics, or an estimate, of the total number of firewood merchants selling firewood to the ACT each year for the last 15 years
- 3. Each year for the last 15 years, what is the total amount in tonnes of firewood sold to the ACT and
 - a. what percentage of this is supplied by retailers compliant with the Firewood Code of Practice and
 - b. what is the percentage of this that is
 - i. hardwood
 - ii. softwood
 - iii. seasoned
 - iv. unseasoned
 - v. boxwood
- 4. By the year, what are the geographic regions for the firewood and whether the source of the timber was plantation or non-plantation
- 5. What auditing does the Government do of businesses that are registered as agreeing to the ACT Firewood Code of Practice, for example, to ensure they sell seasoned wood only and when were any audits last conducted
- 6. Please provide data on the results of compliance checks carried out under the Code of Practice by year from 1999 to 2023
- 7. What actions has the Environment, Planning and Sustainable Development Directorate -Environment taken to avoid institutional failure where the processes and structures relating to the enforcement of laws and policies on wood heaters do not operate efficiently or effectively in other parts of the ACT Government?
- 8. What actions has the Commissioner for Sustainability and the Environment taken to avoid institutional failure where the processes and structures relating to the enforcement of

laws and policies on wood heaters do not operate efficiently or effectively in other parts of the ACT Government?

- 9. Which ACT Government Agency and ACT Govt Minister is responsible for the enforcement and regulation of the Wood heater emissions and efficiency standards and best practice management?
- 10. Over the last 5 years, what specific actions has the ACT Government taken to address the "Difficulty with enforcement of smoke standards" which Commissioner for Sustainability and the Environment discusses in her Investigation. Specifically, interested in any information on the lack of resources or inadequate co-ordination of enforcement in a manner that best makes use of the available resources.
- 11. Air quality in the ACT is generally excellent compared with other Australian cities and is considered clean by world standards. Over the last 15 years, has the ACT Government agency responsible for the Burn Right Tonight ever advised a Minister that the "Burn Right Tonight" campaign is not effective in improving air quality to safe levels in winter? Has this advice been explained in the Annual Report for the Agency?
- 12. Has the ACT Government agency responsible for the Wood Heater Replacement Program ever advised the responsible Minister that the Wood Heater Replacement Program has not been effective? Has this advice been explained in the Annual Report for the Agency? In what year did ACTEW AGL stop funding rebates for residents who installed gas heaters? What year did the program stop funding gas heaters? Does an industry or the ACT Government fund the Wood Heater Replacement Program?
- 13. What costing have been developed that describe the estimated costs for all trades for property owners to remove of wood heaters (and remediate the damaged area) before a property in any ACT suburb (excluding rural areas) can be sold? What assumptions are built into the costings?
- 14. What is the estimated cost to establish and maintain each year a register of wood heaters in the ACT to determine the number and age of wood heaters.
- 15. What is the estimated cost to 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.
- 16. What is the estimated cost urgently undertake an assessment of air pollutant emissions from diffuse sources to update the National Pollutant Inventory data (1999).
- 17. When will the Regulatory Impact Statement for the proposed rules mandating removal of wooden heaters be available publicly?
- 18. Which policy options to reduce the impact on wooden heaters were be eliminated as not feasible?
- 19. What is the estimated reduction in wood heater particulate emissions over the last 15 years in the ACT?

The Environment Planning and Sustainable Development Directorate accepted a partial transfer of this request on 5 April 2023.

Authority

I am an Information Officer appointed by the Director-General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

Timeframes

In accordance with section 40 of the Act, CMTEDD is required to provide a decision on your access application by 26 April 2023. Thank you for agreeing to an extension of time until 28 April 2023.

Decision on access

Searches were completed for relevant information maintained by CMTEDD, identifying answers to parts of your request. Additionally, four documents have been provided as part of this response.

I have decided to grant full access to the available information. I have provided a schedule of the relevant documents as **Attachment A**, and the relevant documents have been released to you as **Attachment B**.

In accordance with section 54(2) of the Act a statement of reasons outlining my decisions is below.

Statement of Reasons

As a decision maker, I am required to determine whether the information within scope is in the public interest to release. To make this decision, I am required to:

- assess whether the information would be contrary to public interest to disclose as per Schedule 1 of the Act
- perform the public interest test as set out in section 17 of the Act by balancing the factors favouring disclosure and factors favouring non-disclosure in Schedule 2

The public interest information under schedule 2 of the Act

The Act has a presumption in favour of disclosure. As a decision maker I am required to decide where, on balance, public interest lies. As part of this process, I must consider factors favouring disclosure and non-disclosure.

Taking into consideration the information found to be within the scope of your request, I have identified that the following public interest factors are relevant to determine if release of the information contained within these documents is within the 'public interest'.

Factors favouring disclosure in the public interest:

- (a) disclosure of the information could reasonably be expected to do any of the following:
 - (*i*) promote open discussion of public affairs and enhance the government's accountability.
- (ii) contribute to positive and informed debate on important issues or matters of public interest.
- (viii) reveal the reason for a government decision and any background or contextual information that informed the decision.

I have placed substantial weight on the above factors favouring disclosure. It is reasonable to expect that the use of firewood in wood heaters and the work undertaken by government in this area is a topic that many within the Canberra community are interested in. The release of this information can reasonably be expected to provide information that will inform the community, enhance debate, and provide context.

I did not identify any factor favouring nondisclosure and have decided to release this information to you in full.

Charges

Processing charges are not applicable for this request because the number of pages released to you is below the charging threshold of 50.

Online publishing – Disclosure Log

Under section 28 of the Act, CMTEDD maintains an online record of access applications called a disclosure log. Your original access application and my decision will be published on the CMTEDD disclosure log. Your personal contact details will not be published. You may view CMTEDD disclosure log at

https://www.cmtedd.act.gov.au/functions/foi/disclosure-log-2023

Ombudsman Review

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek Ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published in CMTEDD disclosure log, or a longer period allowed by the Ombudsman.

We recommend using this form *Applying for an Ombudsman Review* to ensure you provide all of the required information. Alternatively, you may write to the Ombudsman:

The ACT Ombudsman GPO Box 442 CANBERRA ACT 2601

Via email: actfoi@ombudsman.gov.au

ACT Civil and Administrative Tribunal (ACAT) Review

Under section 84 of the Act, if a decision is made under section 82(1) on an Ombudsman review, you may apply to the ACAT for review of the Ombudsman decision. Further information may be obtained from the ACAT at:

ACT Civil and Administrative Tribunal Level 4, 1 Moore St GPO Box 370 Canberra City ACT 2601 Telephone: (02) 6207 1740 http://www.acat.act.gov.au/

Should you have any queries in relation to your request please contact me by telephone on 6207 7754 or email <u>CMTEDDFOI@act.gov.au</u>.

Yours sincerely,

EH

Emma Hotham Information Officer Chief Minister, Treasury and Economic Development Directorate

28 April 2023



FREEDOM OF INFORMATION REQUEST SCHEDULE

WHAT ARE THE PARAMETERS OF THE REQUEST ee scope in decision letter for details.						Reference NO. CMTEDDF012023-105	
Ref No	Page number	Description	Date	Status	Reason for Exemption	Online Release Status	
1	1-7	CMTEDD response to Applicant	N/A	Full		Yes	
2	8	2022 Firewood Moisture Readings	2022	Full		Yes	
3	9-14	PM Data	Undated	Full		Yes	
4	15-18	Yearly Analysis	Undated	Full		Yes	
5	19-20	EPA Merchant Handout	Undated	Full		Yes	
fotal No of Docs						1	

5

	Applicant's Question	CMTEDD's Response	Document Reference
1	Please provide the most up-to-date list of businesses which have undertaken to comply with the ACT Firewood Code of Practice, including the dates that each business was entered on the register.	The ACT Code of Practice (CoP) ceased in 2001 with the introduction of mandatory licensing. The EPA does not license firewood merchants anymore.	
2	Does the Government have statistics, or an estimate, of the total number of firewood merchants selling firewood to the ACT each year for the last 15 years	The following is the number of licensed merchants estimated to be operating within the ACT by year. 2001 – 25 2002 – 21 2003 – 21 2004 – 20 2005 – 20 2006 – 16 2007 – 21 2008 – 19 2009 – 21 2010 – 23 2011 – 26 2012 – 24 2013 – 17 2014 – 21 2015 – 21 2016 – 22 2017 – mandatory licensing requirements it does not have an accurate record of the number of merchants operating in the ACT. Merchants operating in the ACT are covered by the	

	<i>Environment Protection Regulation 2005</i> are required to submit an annual firewood sales report. Based on the annual reports received this year we would estimate that there are only 8 merchants operating in the ACT.	
Each year for the last 15 years, what is the total amount in tonnes of firewood sold to the ACT and a) what percentage of this is supplied by retailers compliant with the Firewood Code of Practice and b) what is the percentage of this that is: i. hardwood ii. Softwood iii. seasoned, iv. unseasoned v. boxwood		Refer to: Yearly Analysis Report "Yearly analysis" Pages 15-18
By the year, what are the geographic regions for the firewood and whether the source of the timber was plantation or non-plantation.		Refer to: Yearly Analysis Report "Yearly analysis" Pages 15-18
What auditing does the Government do of businesses that are registered as agreeing to the ACT Firewood Code of Practice, for example, to ensure they sell seasoned wood only and when were any audits last conducted.	The voluntary CoP ceased in 2001 and was replaced with the introduction of mandatory licensing (via an Environmental Authorisation - EA). The COP formed the basis for the EA conditions issued to merchants. These were routinely reviewed in accordance with the requirements of the <i>Environment Protection Act</i> 1997. In summary for the period 2001 to 2016 most businesses were found compliant for selling seasoned timber but from time to time some merchants were found to be non-compliant with their reporting disclosure requirements in relation to firewood information and the dissemination of the EPA brochure.	Refer to: "EPA Merchant handout" Pages 19-20 Refer to publicly available document: https://www.accesscanberra.act.qov.au/s/article/about- access-canberra-tab-access-canberra-accountability- commitment
	the total amount in tonnes of firewood sold to the ACT and a) what percentage of this is supplied by retailers compliant with the Firewood Code of Practice and b) what is the percentage of this that is: i. hardwood ii. Softwood iii. seasoned, iv. unseasoned v. boxwood By the year, what are the geographic regions for the firewood and whether the source of the timber was plantation or non-plantation. What auditing does the Government do of businesses that are registered as agreeing to the ACT Firewood Code of Practice, for example, to ensure they sell seasoned wood only and when	to submit an annual firewood sales report. Based on the annual reports received this year we would estimate that there are only 8 merchants operating in the ACT.Each year for the last 15 years, what is the total amount in tonnes of firewood sold to the ACT and a) what percentage of this is supplied by retailers compliant with the Firewood Code of Practice and b) what is the percentage of this that is: i. hardwood ii. seasoned, iv. unseasoned v. boxwoodBy the year, what are the geographic regions for the firewood and whether the source of the timber was plantation or non-plantation.What auditing does the Government do of businesses that are registered as agreeing to the ACT Firewood Code of Practice, for example, to ensure they sell seasoned wood only and when were any audits last conducted.The voluntary CoP ceased in 2001 and was replaced the basis for the EA condition issued to merchants. These were routinely reviewed in accordance with the requirements of the Environment Protection Act 1997. In summary for the period 2001 to 2016 most businesses were found to be non-compliant with their reporting disclosure requirements in relation to firewood information and the dissemination of the EPA brochure.

Commitment and the Environment Durthesting	
Commitment and the Environment Protection	
Compliance Framework no formal action was taken,	
but instead merchants were educated regarding their	
responsibilities.	
On the 6 June 2017, the ACT Government passed the	
Red Tape Reduction Legislation Amendment Bill	
2017, which aimed to reduce unnecessary regulatory	
burden for business, the community and	
government.	
From 31 August 2017, firewood merchants were no	
longer be required to hold an EA for the preparation,	
sale and supply of firewood in the ACT. This change	
aligns with the Government's goal to reduce red tape	
and support local industry to understand and comply	
with regulations, while still maintaining standards for	
protection of the environment.	
protection of the environment.	
Firewood merchants are regulated under the	
Environment Protection Act 1997 and must comply	
with the requirements as set out in Section 14 of the	
Environment Protection Regulation 2005. These	
-	
requirements include that the merchant must supply	
customers with seasoned wood, it must be offered	
and supplied by weight (not by volume) and each	
customer must be given a written statement of the	
weight of the load supplied and a pamphlet supplied	
by the Environment Protection Authority that sets	
out recommended wood burning practices and	
encourages compliance with those practices.	
An example of advice provided to merchants is	
included in the attachment "Q5 2022 EPA Merchant	
handout".	
During the licensing period (2001 – 2017) all	
firewood Environmental Authorisations were	
reviewed on multiple occasions as required by	
Section 57 of the Environment Protection Act 1997.	

6	Please provide data on the results of compliance checks carried out under the Code of Practice by year from 1999 to 2023.	Overall, these reviews did not identify any major non-compliance with the conditions of their EAs, in particular the requirement to sell seasoned firewood. <i>See comments above for Question 5.</i> Since the abolition of licensing in 2017 the EPA has committed to undertake routine inspections of ACT based merchants. The EPA undertook inspections in 2019 and 2022. 2019 – two site inspections were undertaken in conjunction with inspections of retailers selling wood heaters. Both firewood merchants were found to be compliant. Please see the attached photos which are indicative of the firewood being sold by merchants. 2022 – five site inspections were undertaken (all ACT merchants have a sales location). All were deemed compliant for the moisture content of the firewood. However, one merchant had a small pile of wood left which just exceeded the moisture level due to the high volume of rain experienced prior to the inspection. The volume of wood on site did not comprise a minimum retail amount and was not for sale. Non-compliance issue was identified in relation to the distribution of the EPA approved brochure. This issue was remedied by providing additional copies of the brochure to merchants. Merchants were advised to contact the EPA when they required additional copies. Inspections were not undertaken in 2020/21 due to Covid.	Refer to: "Firewood Moisture Readings" Page 8
7	What actions has the Environment, Planning and Sustainable Development Directorate – Environment taken to avoid institutional failure where the processes and structures relating to the enforcement of laws and policies on wood heaters do not operate	No information held by CMTEDD.	

5	efficiently or effectively in other parts of the ACT Government?		
8	What actions has the Commissioner for Sustainability and the Environment taken to avoid institutional failure where the processes and structures relating to the enforcement of laws and policies on wood heaters do not operate efficiently or effectively in other parts of the ACT Government?	No information held by CMTEDD.	
9	Which ACT Government Agency and ACT Govt Minister is responsible for the enforcement and regulation of the Wood heater emissions and efficiency standards and best practice management?	Wood heater emissions are regulated by the Environment Protection Authority consistent with the approach detailed online.	Refer to publicly available document: <u>https://www.accesscanberra.act.gov.au/s/article/air-</u> <u>pollution-tab-smoke-and-odour-complaints-from-wood-</u> <u>heaters</u>
10	Over the last 5 years, what specific actions has the ACT Government taken to address the "Difficulty with enforcement of smoke standards" which Commissioner for Sustainability and the Environment discusses in her Investigation. Specifically, interested in any information on the lack of resources or inadequate co-ordination of enforcement in a manner that best makes use of the available resources.	Complaints received by Access Canberra are handled by the Resolution and Support Team in the first instance where a complaint letter is sent to the activity manager. In a majority of cases this resolves the issue. Follow- up complaints are investigated by the EP, consistent with the EPA Compliance Framework. Where smoke is validated exceeding the policy criteria a warning letter is sent to the activity manager.	Refer to publicly available document: EPA Compliance Framework
11	Air quality in the ACT is generally excellent compared with other Australian cities and is considered clean by world standards. Over the last 15 years, has the ACT Government agency responsible for the Burn Right Tonight ever advised a Minister that the "Burn Right Tonight" campaign is	No information held by CMTEDD.	

	not effective in improving air quality to safe levels in winter? Has this advice been explained in the Annual Report for the Agency		
12	Has the ACT Government agency responsible for the Wood Heater Replacement Program ever advised the responsible Minister that the Wood Heater Replacement Program has not been effective? Has this advice been explained in the Annual Report for the Agency? In what year did ACTEW AGL stop funding rebates for residents who installed gas heaters? What year did the program stop funding gas heaters? Does an industry or the ACT Government fund the Wood Heater Replacement Program?	No information held by CMTEDD.	
13	What costing have been developed that describe the estimated costs for all trades for property owners to remove of wood heaters (and remediate the damaged area) before a property in any ACT suburb (excluding rural areas) can be sold? What assumptions are built into the costings?	No information held by CMTEDD.	
14	What is the estimated cost to establish and maintain each year a register of wood heaters in the ACT to determine the number and age of wood heaters.	These costs have not been estimated. Consideration of this question will be part of the ACT Government's response to the Commissioner for Sustainability and the Environment's inquiry into wood heaters.	
15	What is the estimated cost to develop and apply empirical criteria for determining environmental harm or nuisance from wood heater smoke, such	These costs have not been estimated.	

	as assessment of smoke composition and air quality monitoring at the affected sites, as part of EPA investigations.		
16	What is the estimated cost urgently undertake an assessment of air pollutant emissions from diffuse sources to update the National Pollutant Inventory data (1999).	These costs have not been estimated.	
17	When will the Regulatory Impact Statement for the proposed rules mandating removal of wooden heaters be available publicly?	No information held by CMTEDD.	
18	Which policy options to reduce the impact on wooden heaters were be eliminated as not feasible?	No information held by CMTEDD.	
19	What is the estimated reduction in wood heater particulate emissions over the last 15 years in the ACT?	Relevant disaggregated data by station location and particulate matter size (PM10 - 10 microns and PM2.5 – 2.5 microns) are provided in the attached.	Refer to: "PM data" Pages 9-14

	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5
Merchant 1	14	19	18	20	
Merchant 2	14	17	15	16	14
Merchant 3	14	17	18	17	18
Merchant 4	17	15	15	18	17
Merchant 5	20	23	21	20	19

Note: Firewood for Merchant 5 was not available for sale

	Data	No. of	Max	Annual average	95 th	75 th	50 th
Year	<mark>Availability</mark>	Exceedance s	conc.	(µg/m ³)	percentile	percentile	percentile
	(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	(µg/m ³)
200	3 97.5	13	350.4	20.5	39.6	21.2	14.6
200	4 99.7	3	52	16.8	33.8	20.7	14.7
200	5 <u>97</u> .5	10	98.8	17.3	37.3	21.2	14.5
200	6 <mark>8</mark> 3.8	4	55.2	18.3	33.9	22.7	16.9
200	7 99.7	5	117.7	17	35.3	21	14.9
200	8 82	3	96.6	16.4	29.9	20.1	14.8
200	9 42.3	9	210	20.3	50.5	25.5	15.2
201	0 95.4	0	48.4	11.1	23.5	14.7	10
201	1 99.2	0	40	10.4	22.8	13.2	8.7
201	2 98.6	0	41	10.4	19.7	13.7	9.7
201	<mark>3 95.6</mark>	0	43.5	9.8	20.2	13.1	8.9
201	4 97.8	0	39.3	10	19.1	12.9	9.6
201	5 98.4	0	49.4	9.9	19.5	13.1	9.5
201	6 99.5	0	31.9	9.7	21.5	12.7	9
201	7 98.9	0	28.3	9.8	20.5	12.3	9
201	8 99.2	4	139.2	11.8	23	14.8	10.4
201	9 98.4	22	385.7	19.1	61.1	17.8	11.4
202	0 99.2	21	1046.1	22.4	54.3	17.8	10.4
202	1 99.5	0	37.3	10.3	22.9	13.7	9.1

monash PM10

		Data	No. of	Max	Annual average	95 th	75 th	50 th
Year		Availability	Exceedance s	conc.	(µg/m ³)	percentile	percentile	percentile
		(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	(µg/m ³)
1	2004	93.1	15	38.3	8.2	23.5	9.5	6.2
	2005	73.6	14	38.6	7.5	25	9	4.9
	2006	83.3	20	46.9	7.9	27.8	8.7	5.8
1	2007	58.1	8	45.7	7.5	20.9	8.8	5.4
1	2008	45.4	6	30.7	8.7	23.5	12.4	6.3
2	2009	64.5	2	33.5	6.2	14.6	7.6	5
	2010	<mark>95.1</mark>	2	52.4	6.7	17.4	7.8	4.4
	2011	92.1	4	32.8	6.5	20	7	4.5
	2012	95.1	3	29.2	7.1	16.5	8.3	5
	2013	98.6	6	<mark>38.4</mark>	6.9	19.2	8.1	5.2
1	2014	87.7	4	31.5	6.8	18.7	8.6	5.6
	2015	96.4	6	33.8	7.4	19	8.2	5.6
	2016	98.1	8	32.7	7.4	20.7	8.2	5.4
	2017	98.6	12	35.2	7.7	22.5	9.3	5.3
1	2018	99.2	2	32	6.8	19.2	8.6	5.3
į.	2019	98.9	28	307.9	14.1	42.7	12.5	7.2
1	2020	98.6	37	1146.5	17.9	38.4	11.3	5.7
1	2021	98.6	5	27.9	6.8	19.2	8.1	4.9

Monash PM2.5

	Data	No. of	Max	Annual average	95 th	75 th	50 th
Year	Availability	Exceedances	conc.	$(\mu g/m^3)$	percentile	percentile	percentile
	(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	$(\mu g/m^3)$
20	03 12.6	0	20.8		19.3	13.6	9.3
20	04 16.7	0	33.2		28.1	17.9	14.4
20	05 9.6	1	50.64		34.8	19.5	12.7
20	06 13.2	2	70.8		46.5	26	17.6
20	07 13.2	1	50.9		42.7	20.1	13.8
20	08 12	1	53.3		26.1	17.3	11.9
20	09 n/a	n/a	n/a		n/a	n/a	n/a
20	10 57.6	0	23.8	8.5	14.7	11.1	8.4
20	11 97	0	29.2	8.7	16.9	11	7.9
20	12 95.1	. 0	49.5	9.4	17	12.1	8.7
20	13 92.9	1	57.8	9.7	<mark>19.</mark> 9	12	8.6
20	14 95.1	. 0	31.4	9.8	17.7	12.6	9.3
20	15 97.5	1	64.3	11.1	20.9	14.1	10.4
20	16 100	0	36.6	10.7	20.6	14.3	9.7
20	17 83.6	1	53	9.68	10.8	7.1	5.2
20	18 97.8	1	179.8	13.5	24.1	16.1	11.3
20	19 97.3	29	390.2	22.9	82.5	19.5	12.7
20	20 98.4	24	994.9	21.7	56.7	15.2	10
20	93.7	0	28.6	8.7	15.6	11.5	8.1

Civic PM10

Civic PM2.5

	Data		Max	Annual average	95 th	75 th	50 th percentile	
Year	Availability	Exceedance s	conc.	(µg/m ³)	percentile	percentile		
	(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	(µg/m ³)	
2016	98.6	0	22.1	5.5	11	7.1	4.8	
2017	94.2	1	53.8	5.9	10.8	7.1	5.2	
2018	98.6	1	36.1	6.5	12.1	8.1	6.1	
2019	96.4	29	390.2	22.9	82.5	19.5	12.7	
2020	99.2	18	872.6	12.9	24.8	7.6	5.1	
2021	96.7	0	21.8	5	9.5	6.6	4.6	

FloreyPM10

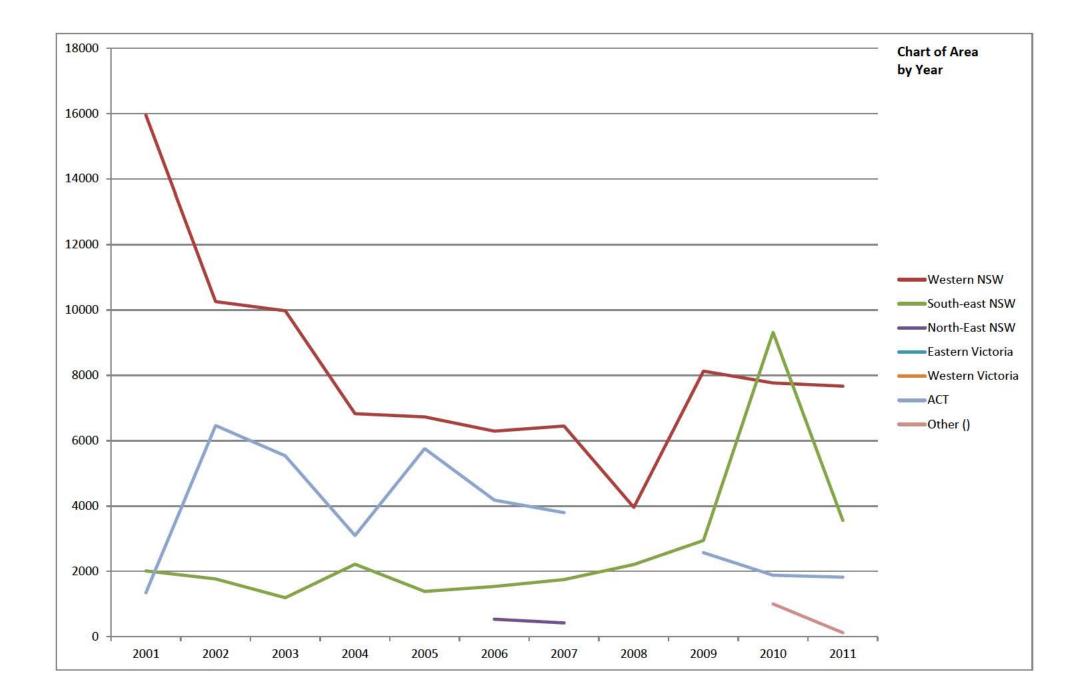
Year	Data Availability	No. of Exceedance s	Max conc.	Annual average (µg/m ³)	95 th percentile	75 th percentile	50 th percentile
	(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	(µg/m ³)
2014	83.3		30.2	10.4			
2015	95.6	0	70.8	10.7	21.8	13.7	9.4
2016	98.9	0	28.8	10.1	20.6	13.1	9.2
2017	98.4	0	28.1	9.84	21.8	12.8	8.5
2018	89.9	3	158.6	12	23.8	15.3	10.1
<mark>201</mark> 9	<mark>98.1</mark>	28	379.7	23.8	96.8	20.6	13.4
2020	<mark>99.5</mark>	21	1075.5	22.8	57.5	17.9	10.9
2021	99.5	0	37.9	9.6	19.6	12.7	8.5

FloreyPM2.5

Year	Data Availability	Exceedance	Max conc.	Annual average (µg/m ³)	95 th percentile	75 th percentile	50 th percentile	
	(%)	(days)	(µg/m ³)		(µg/m ³)	(µg/m ³)	(µg/m ³)	
2014	74.2		22.8	5.8	15	7.1	4.9	
2015	96.2	0	24.3	6.5	17.1	7.4	4.8	
2016	98.6	1	27.2	7.3	17.4	8.6	5.8	
2017	94.2	0	23.8	7.2	17.9	8.7	5.6	
2018	97.3	2	26.4	7.4	17	8.7	5.9	
2019	98.4	29	319.6	14.8	46.9	12.3	7.2	
2020	97.3	25	<mark>983.4</mark>	16.9	28.8	12.2	5.9	
2021	98.4	3	28.2	6.2	16	7.6	4.9	

Area By Type

Year	We	stern N	ISW	Sout	h-east I	NSW	North	-East NS	w	Easte	rn Vict	oria	West	ern V	ictoria		ACT			Other			
2001	Non-plantation	Plantation	Salvaged	Non-plantation	Plantation	Salvaged	Non-plantation	Salvaged Plantation	-	Non-plantation	Plantation	Salvaged	Non-plantation	Plantation	Salvaged	Non-plantation	Plantation	Salvaged	Non-plantation	Plantation	Salvaged	Total	
2001																							
2003 2004	9264 6382	716 425		1095 695	96	1522				230						5265 17	275 215	2865					16941 12140
2005	6081	460	190	724		661										31	208	5520					13875
2006	6044	250		891	72	575	63		470					28	0		60	4120					12825
2007	1801	1100	3550		1669	78												3795			420		12413
2008	3692		267	242	89	1875															4185		10350
2009	7557	485		232		2712		1	L480							2570							15126
2010	7283	368		1110		8210										1880					1000		19971
2011	7360	309		500		3055										1750		72			120		13166
2012	8945	449		192		2757						80				1420		121					14081
2013	7568	220		680		3743						37				1740			118				14106
2014	4685	200		76	1700	677	9			2920						1680		102					12049
2015	5940	220		633	95		84			3187						1590		223					11992
2016	4726	337		1226	1600	389	182			3220		29				7		807			106		12629
2017	3139	1433		4833	100	820	280			3450								382			106		14543
2018	5642	336		3165		1415	595			3140									893		187		15373
2019	5460	56		4325	00	245	290	240	000	1998	00		240					F 0	754	2000	112		13480
2020 2021	4142	400		2791 5662	80	235 435	307 481	240	960	3438 4171	80		368					58 71	1758	2968 2968			15699
2021	2813 2482	710 548		3235		435	2109			4171 2910	346		283					86	1637	2908			19437 13636
2022	2402	540		5255			2109			2910	540		205					80	1021				12020



Sales by Year and Area

Year	Western NSW	South-east NSW	North-Eas		Eastern Victoria	Western Victoria	ACT	Other ()	
2001		15949	2011		950		1346	10	20266
2001		10260	1767		550		6465		18492
2002		9980	1191		230		5540		16941
2003		6826	2217		250		3097		12140
2004		6731	1385				5759		13875
2006		6294	1538	533		280			12825
2000		6451	1747	420		200	3795		12413
2008		3959	2206	120			0,00	4185	10350
2009		8132	2944	1480			2570		15126
2010		7771	9320	1400			1880		19971
2011		7669	3555				1822		13166
2012		9511	2949		80		1541		14081
2013		7788	4423		37		1740		14106
2014		4875	2443	9	2920		1782		12029
2015		6180	728	84	3187		1813		11992
2016		5063	3215	182	3249		814		12629
2017		4572	5753	280	3450		382		14543
2018		5978	4580	595	3140			1080	15373
2019		5516	4570	290	1998		0		13480
2020		4542	3106	1507	3518		58		15699

Area by Year

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Western											
NSW			9980	6826	6731	6294	6451	3959	8132	7771	7669
South-											
east											
NSW			1191	2217	1385	1538	1747	2206	2944	9320	3420
North-											
East											
NSW						533	420		1480		
Eastern											
Victoria			230								
Western											
Victoria						280					
ACT			5540	3097	5759	4180	3795		2570	1880	1822
Other ()								4185		1000	120



What can you do to help protect our air quality when using your wood heater?

- 1. Ensure you use dry and well seasoned firewood.
- 2. Store wood in a well ventilated covered space.
- Always use sufficient kindling to get a good hot fire started quickly.
- 4. Place logs in the firebox with about 2 cm between them to allow air flow.
- Use smaller logs. They will make a fire easier to light, establishing a vigorous fire quickly after refuelling.
- Before adding more fuel, open the air inlet to maximum for about five minutes. Then it should be kept open for at least 20 minutes after the fuel has been added. This creates a fire hot enough to ignite the fresh load quickly and get it burning well.
- Do not overfill the heater use two or three small logs in the heater, never one large log.
- Keep your heater and flue in good working order, inspect both annually.
- Don't let your fire smoulder. A fire set on a low setting causes excessive smoke pollution.



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Chief Minister, Treasury and Economic Development

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Firewood is a renewable energy source, but only if it is carefully managed. Standing and fallen dead wood provides important habitat for animals and birds, it also plays an essential role in the maintenance of forest and woodland nutrient cycles.

What can you do to minimise the bio-diversity impact of your firewood purchase?

- Ask if your firewood was sourced from areas where the removal of native vegetation has been approved.
- 2. When available purchase plantation timber instead of native forest or woodland timber.
- Whenever possible purchase recycled wood, such as old fence posts or mill off-cuts.
- Ensure that your firewood has not been collected from areas listed as critical habitat for endangered species.
- Ensure that the required permits or approvals were obtained prior to the collection of your firewood.
- Purchase firewood from merchants complying with the Environment Protection Regulation 2005.





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