Community Submission on the Clean Air for All Victorians Victoria's Air Quality Statement & Engagement Process

By Adam Menary – Healesville Vic 3777 – 30/6/2018

What do you think are the best value actions listed above that are likely to help improve future air quality?

Best value actions taken to date:

- The plan Melbourne 2017-2050 policy to reduce air pollution emissions and minimise exposure to pollution was an important high value action listed by the Andrews Government as this will tackle the root cause of pollution and related sickness and in some cases death in the community for such pollution.
- Reforming the EPA and establishing a statutory objective to protect human health and environment through the Environmental Protection Act 2017 as well as the bill into Parliament was an essential action to allow a much more focused approach underpinned by a legal obligation to act.
- EPA and DELWP accepting all of the Auditor-General's recommendations is an excellent commitment by them and re enforces a legal obligation to act.
- Investing \$55 million in improvements to energy efficiency and productivity, further reducing our reliance on coal-fired electricity generation was an excellent initiative to get to the root cause of reducing pollution for this sector. This also demonstrates to the energy sector that the community has invested heavily and support clean air and will encourage the judiciary to implement the maximum fines possible if further noncompliance occurs.
- Introducing a tighter air quality standard for particulate matter, and applying international convention limits to shipping and other sectors creates a good base line and will allow litigation for non-compliance. This is essential as these are a great health concern and go hand in hand with deterring pollution from occurring. This also gives the EPA an opportunity to decisively take action against non-compliance.
- Investing 1.2 million into developing a clean air strategy shows commitment to the process and provides the resource for public servants to facilitate real public engagement, rather than simply consulting and ticking boxes. This is an excellent signal to the EPA and DSE not to simply consult and manage concerns but rather make real change and take onboard concerns of the wider community.
- Reforming the EPA was essential to giving it teeth and making it more effective to tackle real action against polluters. Also to improve education and monitor pollution and encourage legal action to take place against polluters.

- Developing, with CSIRO, the Bureau of Meteorology and universities, an air quality forecasting system that predicts smoke distribution and concentration from bushfires and planned burns is an excellent initiative to protect people from dangerous levels of pollution. In combination with expanding air quality monitoring and ensuring that monitoring results are publicly available for such events as well as increasing the availability of mobile and community requested monitoring stations is a good initiative to monitor known pollution and fine polluters who exceed limits including government departments in the case of planned burns. Adding \$5.089 million to the EPA to increase its incident air monitoring capability and deploy air monitoring equipment within 24 hrs, also helps identify the perpetrators of such pollution events.
- Making data publicly available on the website is a great initiative to allow the public to monitor air pollution and manage their own safety real time and provides the basis for litigation when these incidents cause sickness and/or death.

Best value actions moving forward:

• Improving our understanding of where and when air pollution occurs including emissions is the most important action as it helps to identify the root cause and relative contribution of pollution sources.

The forefather of total quality management Edwards Deming states in his book *Out of the Crisis*, "Inspection does not improve the quality, nor guarantee quality. <u>Inspection is too late</u>. The quality, good or bad, is already in the product. As Harold F. Dodge said, "You can not inspect quality into a product."

In a similar way monitoring for pollution from various sources is too late, its expensive and it does not unequivocally prove the source of the pollution. Understanding the significant sources of pollution and when that pollution occurs gives the EPA and other agencies a much more targeted and effective approach to address the root cause and monitor for non-compliance.

- Whist most of the major pollution sources are already know by the government, better partnerships with communities is one way to help identify smaller local pollution contributors such as the burning off of green waste or burning plastic from silage on dairy farms.
- Strengthening Victorian equipment standards, such as for wood heater emissions is an essential step in regulating and addressing known causes of pollution.
- Increasing the government's own use of clean technologies and emission reduction
 practices is an excellent way to lead by example and economically support industry
 that have improved their supply chains ie by purchasing from them. Using the
 planning system to encourage the development of walkable neighbourhoods to
 decrease the dependence of communities on motor vehicles is a good example of
 a pollution reduction initiative for one sector and should be encouraged across all
 sectors.
- Establishing an 'exemplar industry' program to promote and recognise best practice in business and industrial air quality management is a good way to educate the community about who is doing a good job and rewarding those companies with exposure to markets for a better financial return for their efforts.
- Increasing national advocacy and providing consistent national approaches to reducing air pollution will help industry to comply and this will also reduce compliance and monitoring costs.

Recommendation 1

In relation to identifying the source of pollution, the government must make available to the public via a website, a list of the sources of pollution, toxicity and relative volumes. Companies, products and brands whose supply chains are associated with this pollution should be listed on a name and shame list in a similar way to <u>food safety incidents</u> in NSW.

Recommendation 2

Make it clear to government employees that since;

- substantial changes have been made to the Act
- they have been adequately resourced
- they have been funded to engage community, make change and take action

that if they fail to act and pollution continues to make people sick and or cause death that they will be held personally responsible for not acting under their duty of care. See <u>Misfeasance in public office</u>.

Recommendation 3

Whilst the following actions are applicable in the short term, the statements should indicate that they should not be relied on to manage pollution in the future as they detract from addressing the reduction of the root cause of the pollution:

 Making sure we can rapidly respond to emerging pollution risks identified through increased monitoring, and advances in medical, scientific and technical knowledge.

E.g. the perverse effect could result in supplying everyone next to toxic polluters a scientifically advanced gas mask, and get them to wear it when the levels are dangerous and give them some advanced drugs to feel better.

Increasing investment in science to identify risks and trends.
 Improving guidance on the location and design of sensitive uses (such as education, childcare and aged care facilities) exposed to significant road traffic emissions.

Eg. a better use of this science would be to eliminate the emissions and plan transport infrastructure and suitable locations for polluting industry. Ie a stronger argument for electric public transport rather than more roads

Do you have any suggestions for further actions?

Recommendation 4

The Governments intended actions should be better targeted at industry and government rather than individuals actions. Getting the community on board to understand and report pollution is a good initiative however, most of the pollution is coming from known industrial sources and the loop holes need to be closed by government rather than "engaging with community" to be seen to be doing something.

Recommendation 5

Since local councils have large influence over the actions of individuals in relation to pollution such as open air burning, the Government must provide guidance on the health risks of smoke pollution and encourage the introduction of councils providing an on property mulching service. This would reduce smoke pollution and on property mulching would improve soil moisture retention therefore reducing fire risk.

Example – the Shire of Yarra Ranges are relaxing open air burning laws yet already residents are burning massive piles of green undried waste causing massive smoke and PM2.5 emissions. <u>https://www.yarraranges.vic.gov.au/Lists/Current-consultation/Draft-Open-Air-Burning-Local-Law</u>

Recommendation 6

Introduce a minimum dry matter % for all firewood that would tie in with minimum equipment standards to ensure that wood effectively burns in such equipment.

Recommendation 7

Lead by example in purchasing renewable power and lowest pollution products and services. Example to lead by example the Government must commit to purchasing 100% recycled paper, thus reducing pollution from native forest logging burns by supporting recycling and plantations. See below example of native forest logging burn in Baw Baw 2018,



Logging coupe 460-512-0016 burn in Baw Baw Photo by Chris Taylor

Recommendation 8

Introduce a pollution permit system where polluters must pay the real cost to offset their pollution. This would encourage industry to transition to less polluting alternatives. For example introduce a native forest logging burn permit that makes native forest logging and associated pollution uneconomic. In this case a permit would encourage a transition to plantations.

Are there any air quality actions you believe should be avoided? Why?

Recommendation 9

Since we are talking about public health and in some cases pollution events that are causing sickness and or death the "cost effectiveness" of following action may be less important:

recognising the importance of cost-effective national approaches to reducing air pollution

Are there particular areas of air quality (either pollution sources or geographic regions) you think the government should target for air quality improvement? Why?

The government is currently causing significant smoke pollution through its planned burns. Planned burns include forest fire management burns and native forest logging coupe regeneration burns. Based on Government data from the Forest Fire Management website and scientific articles on emissions from forest types, the Government is producing an estimated 703,000 tonnes of smoke from its planned burns in Victoria annually see below. This is a large source of PM2.5 and other pollution and like industry and the community, the Government must be held to account.

	А	В	С	D	E	F
1	Title:	Smoke Pollut	tion Output by Pl	anned Burn Type from Go	overnment planne	d burn data
2	Location:	Australia, Vic	toria			
3	Date:	20180512-19	48			
4	Schedule:	Current and	planned in the n	ext 10 days		
5						
6	Source:	https://www	/.ffm.vic.gov.au/			
7	Date data downloaded:	3-May-18				
8	Pivot table Burn District(S):	District	(All)	 All of Victoria 		
9	Planned burn type:		Fire Mittigation Burns	n Logging Burns		
10			Column Labels	•		
11	Logging coupe:		n	У	Grand Total	
12	Total planned burn area (ha):	Sum of Area	86685	1820	88505	
13	Total planned burn area (%):		98%	2%		
14	Smoke pollution emissions (tonnes per ha)			9	135	
15	% of planned area typically burnt		60	% 95	.60%	
16	Total smoke pollution emissions (tonnes)		468,09	9 234	889 702,988	
17	Total smoke pollution emissions (%)		67	%	33%	
18	Multiple of Logging pollution over fire mittigation				0.5	
10						

The usefulness of fuel reduction burns in dry forests around towns or broad acre burns in the bush has been scientifically shown to be ineffective or actually increase fire risk and this practice needs to be considered.

Contrary to common belief, some forests get more fire resistant with age

Fuel reduction burning disturbing forests and preventing them becoming old growth is counter to the science. "I looked at every fire in every forest in the Australian Alps National Parks and found that mature forests are dramatically less likely to burn. Perhaps surprisingly, once a forest is several decades old it becomes one of our best defences against large bushfires.".



Contrary to common belief, some forests get more fireresistant with age New research shows that fire follows fire in the Australian Alps, and old-growth forests are less flammable. THECONVERSATION.COM

https://theconversation.com/contrary-to-common-belief-some-forests-get-more-fire-resistant-withage-95059



Burn-offs have almost no effect on bushfire risk, study finds

Burn-offs have almost no effect on bushfire risks, study finds

Tasmanian modelling shows nearly a third of the state would need to be burned to have significant impact on wildfire threat THEGUARDIAN.COM

https://www.theguardian.com/australia-news/2017/dec/15/burn-offs-bushfire-risks-australiatasmania

Recommendation 10

The Government must stop conducting burn offs in dry forest types and /or forests where the science indicates that this burning is increasing flammability and fire risk.

The table below shows that over 60% of the smoke affecting Melbourne in April and May in 2018 was coming from Logging burns (approximately 222,000 tonnes see below) DELWP and VicForests also needs to comply with the pollution laws and be subject to the same laws and penalties as industry.

	A	В	С	D	E	F	G	Н	
4	Schedule:	Current and	planned in the next	10 days					
5									
6	Source:	https://www	.ffm.vic.gov.au/						
7	Date data downloaded:	3-May-18							
8	Pivot table Burn District(S):	District	(Multiple Items) 🖛	Golburn Latrobe, M	etropolitan, N	lurrundin	di and Yarı	a burn disti	ricts
9	Planned burn type:		Fire Mittigation Burns	Logging Burns					
10			Column Labels 📑						
11	Logging coupe:		n	У	Grand Total				
12	Total planned burn area (ha):	Sum of Area	22974	1718	24692				
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15	% of planned area typically burnt		60%	95.60%					
16	Total smoke pollution emissions (tonnes)		124,060	221,725	345,785				
17	Total smoke pollution emissions (%)		36%	64%					
18	Multiple of Logging pollution over fire mittigation			1.8					

All of the current and proposed actions are targeted at industrial polluters and the community however, none of the actions relate to the governments own activities ie planned burns including logging burns for its Heyfield Sawmill and waste for Nippon paper are a massive pollution contributor.

Recommendation 11

Government departments who are conducting planned burns must also be accountable to the ACT and pollution laws and penalties.

Recommendation 12

The Government must stop conducting native forest regeneration logging burns as the volume and impact of similar burns has been scientifically proven to be causing mortality in the community.



Sydney air pollution from scheduled burn lead to 14 deaths

Sydney air pollution from scheduled burn led to 14 deaths: researchers

Up to 14 people died prematurely due to smoke from a hazard reduction burn in Sydney, new research finds, prompting calls for better warnings.

http://mobile.abc.net.au/news/2016-11-16/sydney-back-burning-causes-14-premature-deaths-studyfinds/8029160?pfmredir=sm

Recommendation 13

The following conflicts of interest in relation to logging burns need to be removed including:

- 1. the Environment minister responsible for the planned logging burns by DELWP is also accountable for the EPA ie the pollution regulator.
- 2. When community complain to the EPA about logging smoke the EPA responded that logging smoke is outside their jurisdiction. Ie this suggests that there is no regulatory or peak body for industrial logging smoke.
- 3. the Heyfield Sawmill is owned by the Andrews labor government and currently takes approximately half the native forest wood volume and is therefore the supply chain entity driving the logging burns and pollution. Logging burns are outside the EPA's jurisdiction and DELWP and VicForests are conducting the burns on Nippon Papers behalf.
- 4. Since Nippon paper aka Australian Paper has a legislated agreement with the government for the native forest supply chain "wood waste" (approximately 80% of the native forest wood volume) to make Reflex copy paper, there is a legislated conflict of interest in relation to the pollution.

Recommendation 14

The confusion by government bodies about the accountability of industrial logging smoke pollution needs to be urgently addressed by providing a transparent structure of accountability to government bodies and the community.

As an example the EPA have been unable to inform the community about who is accountable for the impact of exceeding safe levels of pm2.5 without evacuating the Healesville and Croydon community when they experienced carbon monoxide poisoning from recent logging smoke events in May 2015.



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Whilst planned burns by the DELWP are being touted by several government departments, their websites, media releases, road side signs and community notices in local papers as "Planned burns for your safety" or "fire mitigation burns" the facts are quite different. As detailed in the submission below 64% of smoke volume during the recent excessive smoke pollution events in April and May 2018 were from logging coupe burns around Melbourne. This equates to 222,000 tonnes of smoke over a couple of months and is a significant volume

Recommendation 15

Government departments must stop hiding industrial logging burns behind "planned burns for your safety". This seems to be coming from the Forest Fire Management and DELWP websites and via their community announcements. This is a clear conflict of interest as they are conducting the regeneration burns. There needs to be a concerted education campaign to inform the community that the majority of smoke pollution in April and May is coming from industrial logging.

Are you able to provide any data or information that will help government assess the feasibility and cost-effectiveness of air quality management actions? (see below)

The following is a detailed investigation providing data from government websites and scientific methods to determine the source of smoke from recent "planned burns";

A review of "Planned Burns" and the Impact of Industrial Logging Smoke Affecting the Health of Victorians, their Businesses & Wellbeing.

By Adam Menary 1 June 2018 "It is estimated that 64% of Melbourne smoke pollution in early May was from logging burns".

Executive summary

Every April and May the community of the Yarra Ranges, Toolangi, Yarra Valley, Healesville and greater Melbourne is heavily impacted by protracted fumigation from logging burns.

Whilst the government make us aware that "planned burns for fire fuel reduction are for our safety", we have observed over a decade, that on most days, most of the smoke impact is coming from industrial logging burns.

Using <u>government data</u>, this review shows that in early May 2018, approximately 64% of the smoke volume impacting Melbourne and surrounds was coming from logging burns. On the 1st of May the <u>EPA Air Watch</u> <u>site</u> reported Air Quality Index (AQI) in Mooroolbark was 618 with PM2.5 at 154.4 mg/m3. Both readings are in the "very poor" range for air quality and considered dangerous. Despite this data being publicly available, all of the government websites and main stream media before the <u>article in the Saturday Paper</u> on the 12th of May 2018, avoid mentioning the fact that the majority of smoke is coming from industrial logging.

There is a large body of science highlighting the danger of smoke from forest fires of any type and more recently evidence of <u>14 deaths in Sydney</u> from pollution from planned burns. There are many scientific papers questioning the value of fuel reduction burning. However, there is no EPA permit required by Nippon Paper (aka Australian Paper makers of Reflex copy paper) for this industrial logging pollution because it is carried out

by the Department of Environment, Land, Water and Planning (DELWP) under the Environment Ministers portfolio who apply for local council burn permits.

The clear fell logging is uneconomic with tax payers funding an estimated \$133 million in unpaid resource rent. Furthermore Premier Andrews has recently <u>bought the Heyfiled sawmill</u> for approx. 60 Million dollars to prop up the failing industry.

The "Planned burns for your safety" misinformation, is a "smoke screen" hiding the regeneration burning pollution from Nippon Papers woodchip supply chain whilst the community are suffering adverse health effects, none of which has to comply with the EPA air quality requirements.

This review highlights many things you can do including making a submission to the Clear Air for All Victorians initiative via the engage Victoria website due 30 June 2018 <u>https://engage.vic.gov.au/clean-air-for-all-victorians</u>

For the latest updates visit the Facebook page https://www.facebook.com/smokepollutionvic/

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Government websites are misleading the public

DELWP have a website Forest Fire Management Victoria that talks about "planned burns";

https://www.ffm.vic.gov.au/bushfire-fuel-and-risk-management/planned-burns

Forest Fire Management Victoria fail to mention that many of these "planned burns" are logging burns for regeneration burning. Here is the description on their website.

Planned burns for the next ten days

We work to keep communities safe year round by reducing the risk of bushfires across the state. Our crews include staff from DELWP, Parks Victoria, Vic Forests and Melbourne Water.

Share this page 🦸 🎽 in 🖾

Our new approach to bushfire fuel management is about doing more to reduce bushfire risk, and being more effective in how we do it. We reduce bushfire risk by reducing fuel loads – the shrubs, bark and leaf litter that fuel bushfires – through planned burning and other activities, like slashing, mowing and creating fuel breaks.

The map and list below show planned burns in parks and forests for the next 10 days. Please note, burn timing may change without notice, for weather or other reasons.

You can also sign up to the <u>Planned burning notification system</u> to receive automated SMS and email notifications about planned burns on public land when they are close to being carried out.

The statewide outlook states the burning conditions and likely burning activity for the next seven days.

Please note the <u>Statewide Outlook</u> and the <u>Planned Burn Notification System (PBNS)</u> currently only capture burns on **public land**. CFA's planned burns are not yet available online. CFA, together with FFMVic, is investing in systems integration to better capture burning undertaken by all agencies. This is one of the priority projects as part of the *Safer Together* approach to bushfire management in Victoria.

For information on CFA planned burns, please contact your local <u>CFA District Office</u>

For information on private burn offs, contact VicFire on 1800 668 511.

From the interactive map on their site you can zoom in and see the coupes numbers in the format xxxxxx-xxxx see below eg 312-512-0004;



Note that in the key at the bottom of the map there is no reference to "logging coupe burns" just burn boundary see below;

farra Glen	Healesville	Vicmaj	p Basemap Servi	ces © 2018 Sta	ate Government of Victorian Ceresinght and Xarra Rans
Within 10 days	Mext 24 hours	O In progress	⊖ _{Patrol}	Safe Safe	Burn boundary

You can type in coupe numbers in the search box at the bottom of the table;

REGION 🚽	DISTRICT	¢	NAME (NUMBER)	LOCATION	AREA (HA) 🗢	STATUS 🖨					
HUME	MURRINDINDI		Marysville <mark> - 312-512-0004 -</mark> Marysville-Woods Point (3MMV0022)	14km E of Marysville	19	IN PROGRESS					
Showing 1 to 1 of 1 entries (filtered from 253 total entries)											
Search:											
312-512-0004											
Previous Next											
This information is generated live from DELWP's planned burning database. The information may change at any time as burn operations are added to the schedule, or existing operations are rescheduled due to factors such as weather.											

Or you can type e.g. "Marysville" at the bottom of the table to get all the scheduled and in progress burns see below;

REGION 💂	DISTRICT 🖨	NAME (NUMBER) 🗢		AREA (HA) 🗢	STATUS 🖨
HUME	MURRINDINDI	Marysville <mark> - 309-512-0001</mark> Mt Vinegar (3MMV0021)	9.4km SE of Narbethong	47	IN PROGRESS
HUME	MURRINDINDI	MARYSVILLE - 312-510-0007 - ARNOLD CREEK (3MMV0034)	16km E of Marysville	30	IN PROGRESS
HUME	MURRINDINDI	Marysville <mark>- 312-512-0004 -</mark> Marysville-Woods Point (3MMV0022)	14km E of Marysville	19	IN PROGRESS
HUME	MURRINDINDI	Marysville - 309-507-0001 White Hills (3MMV0020)	4.1km SE of Narbethong	26	NEXT 24 HRS

On the 29/4/2018 we drove through Marysville at about 5pm and it was covered in thick smoke. It was hard to breath and we could not see the hills from the smoke from these coupe burns above.

This year in our area 74 of the 108 planned burns ie 69% were logging burns not fuel reduction burns (see image below).

Planned Burn Type	Number of Fires	% (% of Total		
Logging	7	4	69%		
Fuel Reduction	3	4	31%		
Total	10	8	100%		

(To get the numbers above go to the <u>ffm website</u> and scroll through the table and find 10 digit numbers in the form xxx-xxx then hit next to get the next batch.)

To cross reference these coupes you can go to the VicForests "Timber Release Plan – Interactive map" and type the coupe number in <u>http://www.vicforests.com.au/planning-1/timber-release-plan-1/approved-trp-jan-2017</u>

Timber Release Plan - Interactive Map

Interactive online map - Click on the below image of the map to view VicForests' areas of operations and the coupes currently listed on the Approved Timber Release Plan (Note: the use of Firefox or Google Chrome is recommended when viewing the Interactive Map)

A Guide has been developed to assist with use of the Interactive Timber Release Plan Map - please click here to access the Guide

Transitioning to interactive maps in January 2018

VicForests will be transitioning from providing both static maps and the interactive map, to only providing the interactive map from **12 January 2018**. Static maps will still be available upon request if you have trouble using the interactive map.



Black circular shapes on these high-resolution PDF maps, represent logging coupes and you can zoom in to get high detail. As you can see below the logging coupes approved for logging in Jan 2017 that will be clear felled and burned are extensive in number to the North East and East of Melbourne;



A full list of approved logging coupes can be found here;

http://www.vicforests.com.au/static/uploads/files/vicforests-trp-including-approved-changesjanuary2017-wfzbavyxuidr.pdf The image below shows the current approved logging from January 2017 around Toolangi to the North East of Melbourne;



http://www.vicforests.com.au/static/uploads/files/approved-january2017-trp-map-toolangi-lwfzloubriaat.pdf

On the interactive map on the above site you can see these as purple cross hashed areas and click on them to get coupe details;



Below is a pivot table summary of planned burn data, from the Forest Fire Management Website, on the 3rd of May, for burn regions that impacted Melbourne.

The pivot table shows that whist the total area for planned logging burns close to Melbourne is approximately 7%, the total contribution to the overall smoke pollution is approx. 64%. This is because fire management burns typically only burn fine material such as grasses and leaves and emit approx. 9 tonnes per ha whilst logging burns emit approx. 135 tonnes per ha.

	А	В	С	D	E	F	G	Н	
4	Schedule:	Current and	planned in the next	10 days					
5									
6	Source:	https://www	.ffm.vic.gov.au/						
7	Date data downloaded:	3-May-18							
8	Pivot table Burn District(S):	District	(Multiple Items) 🕶	Golburn Latrobe, M	etropolitan, N	1urrundir	ndi and Yarı	ra burn dis	tricts
9	Planned burn type:		Fire Mittigation Burns	Logging Burns					
10			Column Labels 🔹						
11	Logging coupe:		n	У	Grand Total				
12	Total planned burn area (ha):	Sum of Area	22974	1718	24692				
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15	% of planned area typically burnt		60%	95.60%					
16	Total smoke pollution emissions (tonnes)		124,060	221,725	345,785				
17	Total smoke pollution emissions (%)		36%	64%					
18	Multiple of Logging pollution over fire mittigation			1.8					

Table 1. Smoke pollution output by planned burn type around Melbourne from Government Planned burn data.

The following pivot table 2 shows that over the whole of Victoria that approximately 33% of the smoke comes from logging burns;

	А	В	С		D	E	F	
1	Title:	Smoke Pollut	ion Output by P	lar	ned Burn Type from Govern	ment planned	d burn dat	a
2	Location:	Australia, Vic	toria					
3	Date:	20180512-19	48					
4	Schedule:	Current and	planned in the n	ex	t 10 days			
5								
6	Source:	https://www	.ffm.vic.gov.au/					
7	Date data downloaded:	3-May-18						
8	Pivot table Burn District(S):	District	(All)	•	All of Victoria			
9	Planned burn type:		Fire Mittigatio Burns	n	Logging Burns			
10			Column Labels	•				
11	Logging coupe:		n		У	Grand Total		
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17	Total smoke pollution emissions (%)		67	1%	33%			
18	Multiple of Logging pollution over fire mittigation				0.5			
10								

Table 2. Smoke pollution output by planned burn type for the whole of Victoria from Government Planned burn data.

References for figures used in above tables:

Managing temperate forests for carbon storage: impacts of logging versus forest protection on carbon stocks <u>Heather Keith David Lindenmayer</u> <u>Brendan Mackey David Blair Lauren Carter Lachlan</u> <u>McBurney Sachiko Okada Tomoko Konishi-Nagano</u> First published: 25 June 2014 <u>https://doi.org/10.1890/ES14-00051.1</u>

National Carbon Accounting system – Technical report No32. Forest Management in Australia: Impacts for Carbon Budgets. Australian Government, Department of Climate Change, Edited by R.J. Raison and R.O. Squire. <u>https://publications.csiro.au/rpr/download?pid=procite:9b1bf1b6-00af-44f7b108-b68bba21289e&dsid=DS1</u>

Ecological effects of repeated low-intensity fire in a mixed eucalypt foothill forest in south-eastern Australia : summary report (1984-1999). <u>https://trove.nla.gov.au/version/21120378</u>

The Environmental Protection Agency's AirWatch web page states that the "planned burns" are to reduce bushfire risk. Clearly regeneration burning is an industrial process for paper production not for reducing fire risk to the community. <u>https://www.epa.vic.gov.au/our-work/monitoring-the-environment/epa-airwatch#Plannedburns</u>



For information on how to minimise health impacts of smoke, visit the Department of Health and Human Services website.

The website has historical data and we can see that on the 1st of May AQI in Mooroolbark was 618 with PM2.5 at 154.4 both readings are very poor.

EPA air quality hourly update: May 1, 2018 3.00 pm - 4.00 pm

Please note that current data may not be shown for some air quality monitoring stations. Measurements are made continuously at air monitoring stations, but there may be temporary technical issues with the collection and display of data.

Hour	: <u>current</u> <u>ne</u>	ext previo	ous cł	Show: data readings index values							
	Data readings										
Region	Station	Carbon Monoxide	Ozone	Nitrogen Dioxide	Sulfur Dioxide	Particles as PM2.5	Particles as PM10	Visibility Reduction	AQI	Summary	
	Units	ppm	ppb	ppb	ppb	ug/m3	ug/m3	none			
EAST	Macleod*					13.1*			52	GOOD	
	Brighton*					58.2*			233	VERY POOR	
	Box Hill										
	Alphington		43	6	0	31.2	49.0	1.68	125	POOR	
	Mooroolbark*		40			154.4*	33.7	2.25	618	VERY POOR	
	Melbourne CBD					24.1			97	FAIR	
	Dandenong*		42	10		114.3*	31.1	1.97	457	VERY POOR	

Other towns were being evacuated with AQI 4x lower. There were government officials at Coles in Healesville in early May telling people to go home and stay inside.

When a complaint was lodged in April 2018 with the EPA specifically about observed, video recorded and photographed smoke impact from industrial logging, the EPA responded that "…logging smoke was outside their jurisdiction" see below;

Complaint to EPA

Date 22 April 11 Am

Details: logging burns started in Toolangi Friday / Saturday - smoke coming from native Logging burns Hardy's creek road in Toolangi Coupe 300-517-003



and Plantation Rd in Narbarthong

Wind: on Sunday wind currently 1 km per hr wsw but very light and smoke settling in Healesville

Effect: headaches from carbon monoxide restricted breathing from smoke and health impacts from dioxin

Hi

Thank you for contacting EPA Victoria.

Please be advised that smoke from logging does not fall within the EPA Victoria's Jurisdiction. I would suggest getting in contact with the Environmental Health Officer within the Local Council.

If you require further assistance, please contact us.

Subscribe here for EPA Victoria Updates and our Quarterly Newsletter: <u>http://www.epa.vic.gov.au/about-us/news-centre/subscribe</u>

Kind Regards, Daina Customer Service Team

Enviror Protect Environment Protection Authority Victoria 200 Victoria Street, Carlton VIC 3053 | GPO Box 4395, Melbourne VIC 3001 | DX 210082 1300 372 842 | E contact@epa.vic.gov.au | www.epa.vic.gov.au

Government Misinformation is Causing Bullying

A public Facebook page warning friends, family and the community about the protracted fumigation from industrial logging burns (<u>https://www.facebook.com/loggingburns/</u>) is being attacked by members of the community, accusing contributors of being "...greenies that will die in the next bushfire and should be dozed into the ground". Or ... "responsible and to blame for the deaths of the people in Marysville."

Logging burn process

When a coupe is burnt a helicopter drops napalm like incendiaries called Flash 21 or ground crews ignite the coupe with drip torches. This creates a convention current that combusts the dry "waste wood" appox 60% from the clear fell logging process. This creates a distinctive mushroom cloud compared with "fuel reduction burns" which is usually lower level and more dispersed. See images below;



Ignition of a Logging coupe burn Photo by Chris Taylor

Once the convection currents pickup, in still conditions, the smoke from the logging coupe burn forms a mushroom cloud and goes into the atmosphere see below;



Logging coupe 460-512-0016 burn in Baw Baw Photo by Chris Taylor

However, over the next 48 hours while the coupes are burning wind conditions invariably change and the smoke and carbon monoxide and other dangerous substances such as small particles known as PM2.5 can settle on towns and the city of Melbourne;



Smoke in Mooralbark from logging burns and fuel reduction burns 1/5/2018 – Photo by Chris Taylor

Below is a satellite image taken late yesterday (30th May 2018) showing the smoke shrouding around Melbourne. The thick white plumes are from the clearfell logging burns, which are very hot and create a convection column reaching high into the atmosphere. The more transparent areas of smoke, like the smoke hovering around the Dandenong Ranges, are largely fuel reduction burns and they are intended to be 'cooler' burns compared with the logging fires.



The green carbon report <u>https://press.anu.edu.au/publications/green-carbon-part-1</u> highlights that the Mountain Ash forests are some of the highest carbon forests in the world with up to 1200-2000 tonnes per hectare. <u>http://press-files.anu.edu.au/downloads/press/p56611/pdf/exec_summary.pdf</u>

AUSTRALIAN NATURAL FORESTS HAVE FAR LARGER CARBON STOCKS THAN IS RECOGNIZED.

Our analyses showed that the stock of carbon for intact natural forests in south-eastern Australia was about 640 t C ha⁻¹ of total carbon (biomass plus soil, with a standard deviation of 383), with 360 t C ha⁻¹ of biomass carbon (living plus dead biomass, with a standard deviation of 277). The average net primary productivity (NPP) of these natural forests was 12 t C ha⁻¹ yr⁻¹ (with a standard deviation of 1.8). The highest biomass carbon stocks, with an average of more than 1200 t C ha⁻¹ and maximum of over 2000 t C ha⁻¹, are in the mountain ash (*Eucalyptus regnans*) forest in the Central Highlands of Victoria and Tasmania. This is cool temperate evergreen forest with a tall eucalypt overstorey and dense *Acacia* spp. and temperate-rainforest tree understorey.

During a "Clear fell" logging operation approximately 40% of the biomass is removed and 60% remains on the ground and is dried and then burned to add nutrient back into the soil and create seed bed for regeneration.



Fig. 8. Transfer of biomass carbon during harvesting and processing of wood products. Numbers in bold represent the proportion of the total biomass carbon in the forest that remains in each component. Numbers in italics are the average lifetime of the carbon pool (see data sources in Appendix E: Table E1).

It is estimated that approximately 250 tonnes of carbon in the form of waste wood is left on the ground so approx. 150 tonnes per ha is liberated during burning.

Logging Supply Chain Economics

Whilst Premier Daniel Andrews recently bought the <u>economically unviable Heyfield sawmill</u> for approx. \$70 million and gave Nippon Paper \$120 million to establish plantations, the pulp supply chain is still unviable and approximately 20-30% of their raw material comes from Tax payer subsidised native forest logging. VicForests (suppliers to Nippon Paper AKA Australian Paper) now owes the Tax payer and estimated \$133 million in unpaid resource dividends while we continue to pay for the regeneration burning.

In 2010 the Victorian Department of Treasury and Finance (DTF) engaged URS Australia p/l to undertake a review of VicForests' operations in its first five years. Having analysed the state-owned native-forest logging company's performance, URS suggested that the company should be able to produce 15% - 20% "Return on Equity".

This Return on Equity would be realised primarily through payment to Treasury of an annual dividend to recompense the State for the privilege of being allowed to log publicly-owned forests. The dividend is determined "after consultation with the Treasurer". In most years since the corporation began operations in 2004 it has been assessed at "\$Nil". Dividends have now been paid in only five years out of thirteen.

VicForests' 2017 Annual Report, was tabled in Parliament on 19th October and reveals yet another failure to assess a dividend payable in respect of 2015-16 and 2016-17. I note that in July 2016, the state's native forest logging arm, VicForests, paid a dividend of \$1,502,000 to the people of Victoria, in respect of the 2014-15 financial year.

The \$133 million outstanding is calculated on the basis of RoE suggested in the URS review, using the more conservative 15%. On this basis the shortfall between the URS expectation and VicForests' performance after 13 years of operation is now more than \$133 million.

Although \$133 million is a substantial sum, it is a very reasonable amount to expect in exchange for destruction of a massive and valuable public resource over thirteen years. For comparison, Forestry South Australia, which manages public timber plantations and produces an almost identical volume of timber to VicForests (1.33 million cubic metres compared to VicForests' 1.27 million), returned an annual dividend to the people of that state of \$29.5 million in 2013, \$14 million in 2012, \$26 million in 2011 and \$31 million the year before that, a total of \$100.5 million for only four years!

Approximately 3% of wood ends up as appearance grade timber under the ASH brand. Approximately 80% of wood from native forest logging ends up as wood chips that are either exported to Japan, pulped for paper, burnt for power or used in Australia to make Reflex copy paper.



Log dump and woodchip pile at Australian Paper aka Nippon Paper Maryvale Vic.

Science and media references about smoke

The Saturday Paper – Fuel Reduction a smoke screen for logging burns 12 May 2018

The smoke drifting into Melbourne from fires in Victoria's central highlands, described by a government agency as the result of bushfire management for community safety, is mostly due to logging industry burnoffs. By *Katherine Wilson*.

https://www.thesaturdaypaper.com.au/news/environment/2018/05/12/fuel-reduction-smokescreen-loggingburns/15260472006217

Air quality warning for Victorian asthma suffers

On the 13th May 2017 an article in the Age made no mention of mention of the logging burns planned over last few days and coming week nor the fuel reduction burns either. Apparently wood heaters are the cause of Melbourne's cumulative pollution build up!



Air quality warning for Victorian asthma sufferers

Melbourne's air quality will continue to be so poor over the weekend, the Environmental Protection Agency has issued a warning for asthma sufferers.

THEAGE.COM.AU

https://www.theage.com.au/national/victoria/air-quality-warning-for-victorian-asthma-sufferers-20170512-gw3whe.html

Extreme bushfire events increase out of hospital cardiac arrests increase by 50%

Research finds during extreme bushfire events out-of-hospital cardiac arrests on such days increased by almost 50%.

https://journals.lww.com/epidem/Fulltext/2011/01001/Air_Pollution_From_Bushfires_and_Out_of_hospital.1 32.aspx# Smoke from bushfires (AKA logging / planned burns) poses a health hazard for all of us



Smoke from bushfires poses a health hazard for all of us

The bushfires currently raging across south-eastern Australia have, once again, focused national attention on the risks they pose for the community. The immediate concerns, naturally, are the direct impacts...

THECONVERSATION.COM

https://theconversation.com/smoke-from-bushfires-poses-a-health-hazard-for-all-of-us-11493

Sydney air pollution from scheduled burn lead to 14 deaths



Sydney air pollution from scheduled burn led to 14 deaths: researchers

Up to 14 people died prematurely due to smoke from a hazard reduction burn in Sydney, new research finds, prompting calls for better warnings.

http://mobile.abc.net.au/news/2016-11-16/sydney-back-burning-causes-14-premature-deaths-studyfinds/8029160?pfmredir=sm

Contrary to common belief, some forests get more fire resistant with age

Fuel reduction burning disturbing forests and preventing them becoming old growth is counter to the science. "I looked at every fire in every forest in the Australian Alps National Parks and found that mature forests are dramatically less likely to burn. Perhaps surprisingly, once a forest is several decades old it becomes one of our best defences against large bushfires."..



Contrary to common belief, some forests get more fireresistant with age New research shows that fire follows fire in the Australian Alps, and old-growth forests are less flammable. THECONVERSATION.COM

https://theconversation.com/contrary-to-common-belief-some-forests-get-more-fire-resistant-with-age-95059

Burn-offs have almost no effect on bushfire risk, study finds



Tasmanian modelling shows nearly a third of the state would need to be burned to have significant impact on wildfire threat THEGUARDIAN.COM

https://www.theguardian.com/australia-news/2017/dec/15/burn-offs-bushfire-risks-australia-tasmania

Managing smoke should be integral to planning hazard reduction programs



Australia

MJA.COM.AU

https://www.mja.com.au/journal/2016/205/9/rapid-assessment-impact-hazard-reduction-burning-aroundsydney-may-2016

The language of fire, "Did Australian Aboriginals burn as we are told?

Many people claim that the Aboriginals used to burn the forests but this is not correct and not backed by science either.

Fuel reduction and ecological burning etc. are based on the assumption that all Aboriginal people undertook fire-stick farming. Joel Wright, traditional owner in southwest Victoria, is an indigenous language, culture and history researcher. He finds no evidence of wide-scale burning in Aboriginal language and culture, but does find other explanations for the history of aboriginal fires observed by Europeans. These were often smoke-signals exchanged between clans, for general communication and warning of approaching Europeans etc. There was also defensive burning to hinder explorers by burning feed their for their stock. Other fires were to 'cover their tracks' when they were being pursued, etc.. Many of these fires were mistaken for landscape burning. Joel also found one record of burning small portions of dry grass around marshes to expose an area to attract birds to scratch for food there, making the birds potential meals for the indigenous hunters. Nowhere did he find anything to justify the destructive and dangerous annual incineration of the landscapes of the Gunditjamara by the Victorian Government. He was concerned that burning the bush as we do now kills the birds and animals so important to vegetation stories, removes scar and burial trees and burns micro particles from axes and spears that holds the clues as to what they were used for. The video was recorded from Wright's presentation at Australian Wildlife Protection Council Fire and Wildlife Conference, "Pause and Review Victoria's Fire Management." November 2014

In this video at 24:20 "A different approach is needed to be adoptedThe current method of fire management is not appropriate and is doing more damage and creating more risk to bushfire than is intended." "There is no clear evidence that bush burning reduces the risk".



https://www.youtube.com/watch?v=kHZjyuE2qP8

Winemaker fears smoke from planned burns could affect harvest

Industrial logging pollution is impacting other high value industries but is not monitored by the EPA.



Winemaker fears smoke from planned burns could affect harvest

Up at Hoddles Creek, in the Yarra Valley, smoke has been shrouding Franco D'Anna' s vineyard for three days.

WWW.THEAGE.COM.AU

https://www.theage.com.au/national/victoria/winemaker-fears-smoke-from-planned-burns-could-affectharvest-20170407-gvfx5u.html

Airport flights delayed from Logging burns and Melbourne Blanketed in thick fog, smoke

On the 18th April 2017 The Herald sun is calling them back burns but we observed that most of the fires and most of the smoke was coming from industrial logging fires in Toolangi and Kinglake by VicForests without an EPA permit

Melbourne fog, smoke haze: Why is it so smoky? | Herald Sun www.heraldsun.com.au/.../melbourne...to.../333db58d35e8392a28bd82589a48e953 Apr 18, 2017 - FLIGHTS were delayed as fog and smoke blanketed Melbourne this morning, but the weather is set to heat up this afternoon. A Melbourne Airport spokesman said a "handful" of flights were delayed due to fog in the city early this morning. "There were a few flights that were held back but by this point in time ...



Melbourne blanketed in fog, smoke VICTORIANS have arisen to hazy skies with smoke from planned back-burns and low-lying fog reported across the state. WWW.HERALDSUN.COM.AU

Smoke haze from controlled burns covers Melbourne

1/5/2018 Absolutely no mention of the massive amount of smoke coming from native forest logging burns as witnessed over the weekend and Monday and Tuesday.

http://www.heraldsun.com.au/news/victoria/smoke-haze-from-controlled-burns-covers-melbourne/newsstory/3d927cae527abfe8c941203239570c4f?utm_source=Herald%20Sun&utm_medium=email&utm_campaig n=editorial

Herald Sun



Smoke haze from controlled burns covers Melbourne

AIR QUALITY ACROSS MELBOURNE

FIVE suburbs in Melbourne have 'very poor' air quality this morning, according to the Environment Protection Authority Victoria.

Mooroolbark in the city's east had high concentration of pollution, making it very unhealthy for most people about 6am this morning. People with preexisting health conditions were at a higher risk.

Dandenong, Mooroolbark, Brighton and Alphington have reported 'very poor' air quality, between 9am and 10am.

Brooklyn's air quality, in the city's west, has also recorded a 'very poor' rating.

IS THE SMOKE BAD FOR MY HEALTH?

EPA's Chief Environmental Scientist Dr Andrea Hinwood said pollutants released from bush and wood fires were the same as those emitted from car exhausts and industries.

"Air pollution or smoke, is a complex mixture of gases and particles," Dr Hinwood said.

"When we deal with bushfire smoke and wood smoke, the main pollutant is a particle called PM2.5 — which is a small size, meaning it can be inhaled deeply into the lungs."

Dr Hinwood said a combination of factors contributed to the smoggy conditions, including the number of burn offs, the time of year, a weak northerly wind and an increase in the number of people using wood heaters to keep warm.

"Anyone who has pre-existing health issues, respiratory problems or cardiovascular problems should take extra care," she said.

As for the rest of us, Dr Hinwood advised against going for a run and pay to attention to how the conditions were affecting our breathing.

If you experience wheezing or difficulty breathing contact triple-o.

Additional reference documents can be found in the following dropbox location

https://www.dropbox.com/sh/tvcqx555p66cxgp/AAC180Cm6CPoMY5rRpIx94Zoa?dl=0

Do you have any other suggestions on how to secure a clean air future?

Recommendation 15

The government needs to provide the community with a clear structure of who is responsible for native forest logging burns and who is accountable for pollution from native forest logging burns.

Recommendation 16

The government needs to end the conflicts of interest in relation to native forest logging and smoke pollution and close the Heyfield Sawmill and end the Australian Paper legislated supply agreement.

Recommendation 17

The government needs to provide community with details about which peak body is accountable for managing logging burn pollution as this is currently outside the EPA's jurisdiction.

Recommendation 18

The Government needs to install confidence to the community in the clean air engagement process and immediately impose fines on industry recipients in the supply chain that cause pollution from logging smoke burns.

Recommendation 19

Data must be provided to community on incidence of cardiac arrests, respiratory illness, and death from planned burns in Victoria in April and May over the last decade. Associated fines, penalties and compensation to victims needs to be applied.

Recommendation 20

To avert threatened class action, avoid the risk of bushfires and prevent dangerous pollution, The Government must prevent all future native forest logging burns and transition the industry to hand planting in 2019.