

**Rebekkah Pye**

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**From:** Daniel Lavery [REDACTED]  
**Sent:** Tuesday, 26 May 2020 1:11 PM  
**To:** Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee  
**Subject:** Submission to the Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee  
**Categories:** Submission

The Committee Secretary  
Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee Parliament House  
George Street BRISBANE QLD 4000

Dear Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee Chair,  
Deputy Chair and Members

Re: Inquiry into the Queensland Government's Health Response to COVID-19

The Australian Government's health response to the COVID-19 crisis, in the main, has been excellent. Likewise, but for one glaring omission, the Queensland Government's health response has also been excellent.

That omission is the failure to place a moratorium on pre-harvest sugar cane burning in Queensland during the present SARS-COVID-19 crisis.

#### CANE-BURNING IN THE BURDEKIN

The Burdekin district is the last remaining sugar-producing area in Queensland where the pre-harvest of burning cane is practiced. Most sugar cane in Queensland, about 85 percent, is now harvested 'green' without any large-scale burning occurring.

It was once necessary to pre-burn the cutting area because of the health and safety of the cane-cutters who cut the sugar cane manually. Since the 1970s, however, all sugar cane in Queensland has been harvested by machine.

The principal reason for cane burning is now historical although various other commercial reasons are proffered by cane growers for continuing the practice. It is the cane growers, less than 200 in number, who burn the cane over nearly 100,000 hectares of the Burdekin district annually. The four Wilmar sugar mills in the Burdekin will accept and process green-cut cane and prefer it unburnt because it is more environmentally friendly and they get more by-product.

Cane burning is not a right, as is sometimes claimed. It is permitted as an exception to the general rule that prohibits persons conducting such burning under the the Fire and Emergency Services Act 1990. The Cane Burning Notification 2019 permits cane growers to burn sugar cane outside of the provisions of the Act provided minimum conditions are met.

#### SARS-COVID-19 CRISIS

As the members would be aware, SARS-COVID-19 is a Severe Acute Respiratory Syndrome coronavirus which causes severe and acute symptoms in the respiratory system, principally an extreme difficulty to breathe.

Any number of studies have shown noxious particulate matter in the smoke and 'black snow' from burning sugar cane compromises human health, in particular the respiratory system that is necessary to breathe. Research shows that those at most risk are people with existing lung or heart conditions such as asthma, chronic obstructive pulmonary disease and chronic bronchitis, pregnant women, older persons, nursing and aged care residents, and young children and babies. Those with an asthmatic condition may experience wheezing, coughing, chest tightness, and breathing difficulties when the smoke is around and even for some days after. Persons without these health issues who are exposed to this type of poor air quality can experience itchy or burning eyes, throat irritation, a runny nose and coughing. In other words, cane-burning puts every resident at risk of some adverse health issues.

During the current SARS-COVID-19 event, the massive cane-burning intended in 2020 could have even far more severe repercussions for these residents.

In the Burdekin, this burning occurs less than 100 meters (and some not more than 10 meters) from residences in Clare, Brandon, Giru, Home Hill, Millaroo and the major population center, Ayr. This population base of approximately 20,000 residents endure the smoke and the resultant black snow for over 150 days every year. The compromising health risks associated with this burning are indisputable, see <https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.abc.net.au%2Fnews%2Fhealth%2F2019-11-19%2Fbushfire-smoke-health-managing-risks%2F11699894&data=02%7C01%7Chealth%40parliament.qld.gov.au%7C0ac2e3cdef004bd2a39f08d8012266b2%7C234f33c1f5a34c5d8628a50c061ce055%7C0%7C0%7C637260594566519279&sdata=q%2BqGCvEsDmpYIQ%2ByvY7sKPdhpZDltFCDxVjdyRxQdRs%3D&reserved=0>.

Bushfire smoke and the smoke and ash from burning sugar cane is obviously sourced differently but it the particulate matter (the PM) - and especially the size of the PM - which of principal concern for health reasons. PM that is smaller than 2.5 micrograms per cubic metre can penetrate into not only the human respiratory system but can enter the human circulatory system and cause major long term detriment to veins, arteries and the heart.

If the Committee membership has doubt about relying on an ABC report or the advice of Chief Health Officer of Queensland, then they may wish to read R. Burnett et al, 'Global estimates of mortality associated with long-term exposure to outdoor fine particulate matter', Proceedings of the National Academy of Sciences, Vol. 115, No. 38 (18 September 2018), pp. 9592–597. The article is short, authoritative and accessible online.

## 2020 CANE-BURNING SEASON

The cane-burning is to begin for 2020 in a matter of days in the Burdekin and will continue daily through to November. This burning will severely compromise the surrounding air quality for all residents in the Burdekin.

During the current SARS-COVID-19 event, it is our submission the health and well-being of nearby residents and communities - particularly those vulnerable persons like children and the aged noted above - must take precedence over the redundant practice of the burning of sugar cane.

There is no desire to downplay the negative environmental aspects of this massive annual burning event. The amount of carbon dioxide, the smoke and the assorted gases and debris which is released into the atmosphere is troubling. Some people believe this unnecessary annual burning and its potential effects on climate change is reason enough to prohibit the practice. Heavy fertilisation and chemical weed control add another layer of concern as what is being actually being released into the atmosphere by this massive burning, the most serious being nitrous oxide as cane farming is heavily dependent on additive nitrogen. But, my clear emphasis is on the human dimension to this massive annual burning event, particularly during the present SARS-COVID-19 crisis, and the adverse health affects of such burning.

Both the health and environmental concerns appear to blend in recent media stories concerning the effects of smoke penetrating into a hospital in the Australian Capital Territory. See <https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.abc.net.au%2Fnews%2F2020-05-25%2Fcanberra-hospitals-wards-filled-with-toxic-smoke-this->

summer%2F12279384%3Fnw%3D0&data=02%7C01%7Chealth%40parliament.qld.gov.au%7C0ac2e3cdef004bd2a39f08d8012266b2%7C234f33c1f5a34c5d8628a50c061ce055%7C0%7C0%7C637260594566519279&sdata=19NJIFpGHgCWKGuO1HNb5Ei8TWbQv1SIV%2BUwQKvsZXY%3D&reserved=0

Machinery failed, sterilised equipment was contaminated, health staff suffered from the choking smoke, and the air quality in the Canberran hospital wards - including at the neonatal intensive care unit, the emergency ward and the respiratory and sleep disorders ward- in the early smoke-filled days of 2020 were at levels said to be 'unhealthy' for everyone affected.

## CORRESPONDENCE

Correspondence was directed to the Minister for Fire & Emergency Services concerning COVID-19 and the on-coming 2020 cane burning season but there seemed to be little comprehension by that office that cane-burning had a public health dimension. Correspondence was also directed to the Health Minister's office concerning COVID-19 and the cane burning season but it was deemed to not be a health issue by an anonymous responder and instead was an environmental issue and it was forwarded to Minister Enoch's office, (thus kicking the issue into the very long grass). Minister for the Environment's office was written to in early 2019 about both the health and environmental concerns around the annual burn in the Burdekin. A response may be in the offing.

## LIVES OVER LIVELIHOODS

During the current SARS-COVID-19 event, it has been very clear that the Queensland Government has prioritized Lives over Livelihoods. It is an extremely delicate balance but it seemingly has been achieved by the Queensland Government during these present critical times. With one exception.

Although just a small pocket of Queensland, the residents of the Burdekin deserve the same protection as other Queenslanders to ensure that they can breathe clean air.

What has not been balanced is that the nebulous advantages of cane burning on the livelihoods of for some 200 cane-growers is being undeniably and unreasonably privileged over the health and well-being of the 20,000 human inhabitants of the Burdekin region. And particularly so during a global pandemic that attacks the human respiratory system of those inhabitants.

## REQUESTS

It would take a rare act of concerted political courage for the Committee to recommend the cessation of cane-burning in 2020 - even in the middle of this COVID-19 respiratory system pandemic.

Instead, as a minimum position, could the Committee recommend, firstly and as a matter of urgency, that air quality monitors be placed in the three major population centres in the Burdekin, that is Ayr, Home Hill and Clare, by the Department of Environment. These monitors will ensure that when the ambient Air Quality Index in these population centres exceeds safe levels that the numerous aged care facilities, schools and hospitals (as well as ordinary residents) can be alerted to the dangerous air quality and react accordingly. These air quality monitors are quite common in Queensland and are 'live' and you can see them in action here:

<https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fapps.des.qld.gov.au%2Fair-quality%2F&data=02%7C01%7Chealth%40parliament.qld.gov.au%7C0ac2e3cdef004bd2a39f08d8012266b2%7C234f33c1f5a34c5d8628a50c061ce055%7C0%7C0%7C637260594566519279&sdata=jppYL3rLvzhU90a%2Bg7dRXpNEPvtEbZSuEM9BBESxo74%3D&reserved=0>

In conjunction with this recommendation, and without detracting from any present COVID-19 response, could the Committee recommend, that Queensland Fire & Emergency Services (perhaps best advised by the Health Department) put in place relevant public health messaging in the Burdekin during the five months of the cane-burning season in 2020, in particular messaging that when the air quality monitors signal 'poor' air quality of above

AQI 150 and ascending into the dangerous levels (which, in the Burdekin where burning occurs so close to residences, may go into the thousands and perhaps even above 10,000) appropriate health precautions need to be taken and where to get treatment or protective equipment if affected.

Finally, I would also ask that both these recommendations be considered and actioned without waiting for the Committee to report.

Yours sincerely

DM Lavery

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26 May 2020

**Health, Communities, Disability Services and Domestic and Family Violence Prevention Comr**

**From:** Daniel Lavery [REDACTED]  
**Sent:** Thursday, 28 May 2020 11:58 AM  
**To:** Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee  
**Subject:** Supplementary submission to the Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee  
**Categories:** Submission

The Committee Secretary  
Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee Parliament House  
George Street BRISBANE QLD 4000

Dear Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee Chair,  
Deputy Chair and Members

Re: Inquiry into the Queensland Government's Health Response to COVID-19

Further to my submission of 26 May 2020, I offer a short supplementary submission which buttresses some points made in the earlier submission, and also changes the thrust of what recommendation is sought.

**RECENT STUDY FROM MENZIES INSTITUTE FOR MEDICAL RESEARCH**

This supplementary submission focuses on evidence given to the Royal Commission into National Natural Disaster Arrangements earlier this week and which is detailed in this very recent news item.

<https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.abc.net.au%2Fnews%2F2020-05-26%2Fbushfire-royal-commission-hearings-smoke-killed-445-people%2F12286094&data=02%7C01%7Chealth%40parliament.qld.gov.au%7C7fb04fa2cc564813192508d802a99b1%7C234f33c1f5a34c5d8628a50c061ce055%7C0%7C0%7C637262279033960829&sdata=FCyjbTLVqdE%2FPZCEGr%2B3rVVPtL1vSLp7n1wpyRawp8%3D&reserved=0>

If you rely on the modelling provided by the well-credentialed Menzies Institute for Medical Research at the University of Tasmania, nearly 450 people died prematurely as a result of the smoke from the Black Summer bushfires, an additional 3,300 people were admitted to a hospital for respiratory or heart issues and another 1,370 people presented for asthma at an Emergency Department. The health researchers estimated 80 per cent of Australians were affected by bushfire smoke at some point over the 2019/2020 season. The health cost of bushfire smoke for each summer was estimated to be in the order of \$2 billion annually.

Smoke kills prematurely, and this study shows it. We don't now have to solely rely on overseas boffins such as Burnett & Ors in their paper on global estimates of mortality from fine particulate matter that I cited previously. We now have a home-grown study that shows that Australians die in their hundreds - and that an additional thousands of their fellows suffer serious health affects - from smoke inhalation.

Smoke impacts adversely on the health of those all persons subjected to smoke. A/Professor Fay Johnston said: "I think what we can do right now is get better at how we share information about smoke to members of the community." Her comment underscores both my previous requests, the dire need for air quality monitors in the Burdekin and some accompanying public health messaging about smoke during these present critical times.

The Menzies Institute study only estimated excess premature deaths, additional hospital admissions for lung and/or heart issues and those asthmatic persons presenting to EDs with breathing difficulties, associated with smoke. The

study did NOT include the whole range of other health impacts such as ambulance call-outs, medications required, absences from school or workday losses, impacts on diabetes sufferers or on other chronic illnesses, the affects on pregnancies, on the elderly who may have suffered in silence, on nursing and aged care residents who sought internal assistance, the affects on young children and babies, and the huge range of other minor impacts on human health and well-being. The human cost of smoke is substantial. In my earlier submission I proposed that EVERY resident of the Burdekin would undoubtedly be adversely affected by the cane-smoke, and this is borne out by this evidence to the Royal Commission.

Applying this study to the large-scale, sustained, annual and localised cane-burning which occurs in the Burdekin, the Committee membership can be certain that there a premature mortality factor in the towns and communities here every year due to smoke inhalation, that there are hospitalisations for respiratory and heart problems here every year due to smoke inhalation and a goodly number of Burdekin residents presenting with asthma complications every year due to smoke inhalation. The health data from the Menzies Institute is a wide-ranging fire zone, albeit sustained event, not the several months of localised cane-fire smoke endured in 2019, in 2018 -and all the years before that - and, most importantly, to be endured for the next five months of 2020 by Burdekin residents.

There is a substantial cost in real dollars to this loss of life and additional health issues caused by smoke in the Burdekin. When the cost of NOT burning is measured, it will work out to be a fraction of the real cost of providing health care to the affected residents - and that does not include the human cost. If one applies the metrics of success, the continued burning of cane in the Burdekin will be found to be an avoidable public health disaster which occurred in plain sight.

#### ADDITIONAL REQUEST

In my earlier submission, I did not ask the Committee to recommend that the 2020 cane-burning season not be permitted. I believed then that it was an improbable proposition for the Committee members to collectively accept, even in the midst of the present SARS COVID-19 global emergency.

Now, however, we have a recent authoritative Australian study that shows the human death count and the dollar cost of smoke inhalation. In the face of this research, do we wantonly fire up the canefields for the remaining months of 2020?

The Committee membership can appreciate that if the overseas and Australian studies cited are correct, to permit the 2020 cane-burning season to proceed will cause a large cohort of persons from the Burdekin (both residents and visitors) to be admitted to a hospital with respiratory/circulatory issues or to attend their hospital Emergency Departments with acute asthma symptoms from smoke inhalation - and in the knowledge that a goodly number of these persons will die prematurely from that smoke inhalation.

Yours sincerely

DM Lavery

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28 May 2020