

**INQUIRY INTO HEALTH IMPACTS OF EXPOSURE TO
POOR LEVELS OF AIR QUALITY RESULTING FROM
BUSHFIRES AND DROUGHT**

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Terms of reference:

1 The health impacts of exposure to poor levels of air quality resulting from bushfires and drought

including:

(a) the impact of at-risk groups including children, pregnant women, people with asthma and other respiratory-related illnesses, the elderly and other high risk groups as well as vulnerable companion animals;

2. The effectiveness of the NSW Government to plan for and improve air quality including:

(a) the measurement, reporting and public awareness;

(b) the provision of various protective materials including face masks and air purifiers;

(c) the ability to ensure the health of at-risk groups;

My name is Anne Picot.

My address is . My age is 68.

1. I write to report my experience and that of some of my elderly neighbours in this street during the extended period of smoke pollution from November 2019 through January 2020, addressing ToR 1a, and 2 a, b, and c.
2. I draw to your attention to our location, St Peters, which has suffered from the air pollution of construction work for WestConnex, Stage 2, the new M5, for the past three years. The WestConnex M5 New - Air Quality Monitoring sites have provided information about the air pollution for the past 12 months as required under the conditions of approval for the project. We were therefore well aware of the high levels of particulate matter (PM) pollution in our immediate vicinity even before the massive increase across the city from the bushfires. These levels (from traffic and the construction works) were often higher and sometimes much higher than the national standard levels.
3. St Peters has been recognised as a hot spot for PM pollution exacerbated by the WestConnex construction work. So the base of pollution levels residents have experienced for the past three years has already had an impact on their general respiratory health. This was reported to the 2018 Legislative Council Inquiry into the Impact of the WestConnex Project and commented on in the final report (see Chapter 4) and was the subject of recommendations 12, 13 and 14
(<https://www.parliament.nsw.gov.au/lcdocs/inquiries/2497/Final%20report%20-%20Impact%20of%20the%20WestConnex%20Project%20-%20FINAL%20-%202014%20December%202018.pdf>)
4. When the bushfires' smoke descended on Sydney, the levels of PM pollution we could see on the WestConnex Ecotech real-time monitoring of air quality that PM pollution levels literally went through the top of the scales. The combination of bushfire smoke pollution on top of the existing levels and existing impact was very bad.
5. For the duration of the smoke haze in November and December 2019 and January 2020 I had to abandon daily walking for exercise for weeks at a time and often struggled to do

my shopping because it was so uncomfortable to walk across to the Marrickville Metro (my nearest supermarket). I don't drive and do not own a car. Walking to the Marrickville Metro shops, to the closest railway station (St Peters) or to King St to catch a bus, is my principal means of transport. On the days when Sydney skies were grey with smoke I found walking up my street (it has a slope) or May St left me breathless and feeling heavily congested, something I have not experienced before. So I did not go out of my door on those days.

6. Like my neighbours I live in a house over a century-old which is impossible to seal against the smoke. Normally on hot summer days we close our houses (doors and windows and window coverings) to reduce the radiated heat effect and open them at night when the air cools. This was impossible if I wanted to try to keep the smoke out. Over the heat of this summer closing the house for days at a time trapped the heat and made an oppressive internal environment. I don't have air conditioning (some of my neighbours do) but the air conditioning if not filtered would bring in the PM or smoke pollution.
7. One way to escape the heat (and smoke pollution) on the bad days is to travel to airconditioned premises like a shopping centre, the art gallery, the cinema or the library but I found that the walk up to King St was too uncomfortable on most of the smoke-polluted days. I have never experienced this level of discomfort from pollution before, even in China (Beijing and Shanghai).
8. One of my neighbours has poor health, sometime requiring oxygen and is mobility-impaired. She had a most uncomfortable month of January confined to her house. Her house like a few in our old suburb is a weatherboard which is even more impossible to seal against the smoke. She has an air-conditioning unit which helped deal with the heat but the smoke remained a significant problem.
9. Another of my neighbours gave up walking, particularly for her shopping (at Marrickville Metro) for more than two months. She was able to take a community bus (Connect Inner West Community Transport Group Inc) once a week service for her shopping. This service is based on an assessment under either the My Aged *Care* or the NDIS. Leaving aside the issues with timely assessment and delivery of services under both programs, I would argue that community transport services really need to be extended to give vulnerable people suffering from the heat and the air pollution additional services to provide respite in cool and clean air environments.
10. What has been personally noticeable from this experience is that my general level of fitness and well-being has deteriorated from the long period without adequate exercise and many days of being confined to my house. At my age it is difficult to recover one's fitness.

ToR 2 a,b,c.

11. St Peters residents have access to air quality monitoring which could warn us if PM levels were dangerously high. Other parts of the city were not so lucky. I consider that the NSW Government has a responsibility to provide real-time information about pollution levels in the same way as the UV information is provided. There is need for many more air quality monitoring stations, particularly in neighbourhoods where we know the pollution levels are high, so that residents can be warned and take measures to avoid the pollution on the really bad days if they can.

12. Even more the government needs to address the sources of pollution which are **not** caused by bushfires but which undermine public health, such as vehicle pollution. Australia's standard for vehicle emissions are way below the new European standard which has been adopted because of European concern about PM pollution's impact on public health. The NSW government must put pressure on the federal government to adopt the European standard and start providing incentives to car owners to upgrade to less polluting vehicles. Improving air quality through reducing vehicle emissions, moving to eliminate diesel engines and provide incentives to replace them with electric engines in truck, commercial vehicles and buses, encouraging use of electric vehicles with appropriate infrastructure and replacing the current mass transit bus fleets with electric buses would lower the air pollution and improve public health. Future dreadful bushfire seasons and their smoke pollution would be less harmful if the population's general health was not already impaired by the poor quality air many of us have to endure.
13. Most face masks do not stop PM 2.5 pollution and are very uncomfortable to wear for any length of time especially in hot weather. And PM2.5 is the most dangerous pollutant. I see no point in wearing a mask because of that and did not bother during the worst of smoke pollution. It was better not to go out. Filters and purifiers used with adequate air conditioning are helpful but they must be properly maintained and the filters cleaned and changed regularly. Observation of my neighbours who had such units was that maintaining the filters and changing them regularly was expensive for people on a pensioner income. Yet it is elderly people who are most at risk from the dangerous impact of air pollution. This should be investigated and a program to address the matter developed and implemented through Public Health agencies. Improving the health of the elderly by improving air quality including in their homes and providing a means to deal with the days of dangerous levels of pollution would save the public purse in the long run. Of course it would also improve the quality of life for older people.
14. It seems to me that local government and the state public health services should be able to co-operate to develop plans for dealing with the impact of bad pollution and very hot weather. The more vulnerable members of the community should be known to local government services which are often closer to communities than other levels of government but councils need to be funded to develop plans and provide additional services in periods when they are needed. This is not only the elderly but anyone with impaired health or mobility who needs additional support to deal from the heat and pollution. Not everyone needs or wants community services such as the community transport or assistance with coping with the heat and smoke but knowing who is vulnerable and contacting them on bad days would literally save lives. We will undoubtedly find out after this terrible bushfire season that many premature deaths can be attributed to the impact of the 2019-2020 long, hot and smoky summer.

Planning ahead and implementing a program to identify who is vulnerable, what they would need or want to help them cope and putting it into practice will save lives. In neighbourhoods in bushfire-prone areas – not like St Peters - this will be necessary for evacuations and disaster responses. The need is different in the city but a need still exists.

Recommendations

1. The government should increase the number of air quality monitors across the city in both hotspots, streets and open space to collect more extensive data about the levels of pollution.

2. Real time (hourly) information about the levels of pollutants from the monitors must be available on line and alerts made as a normal element of the daily weather forecasts.
3. The NSW government must take action to bring Australian emission standards to the new European standards and institute incentives for the vehicle fleet to be upgraded to the new standards. This will dramatically lower the vehicle pollution and improve vehicle efficiency, a win all round.
4. The NSW government should implement a plan to promote the shift to electric vehicles starting with the public transport bus fleets and so reduce both PM pollution and carbon emissions
5. The NSW government in conjunction with local government must develop plans for helping vulnerable people on days when both extreme heat and pollution (from vehicles, dust storms or bushfires) are considered dangerous. These plans are public health initiatives which should be funded by the public purse and understood as savings in costs of remedial health care and for promoting the well-being of the community at large.
6. Finally, the cause of the extreme bushfire season we have just experienced is climate change. We must expect more such terrible seasons in the future and so it is more than time that the NSW state government stepped up action to reduce carbon emissions as well as implementing measures to deal with the disasters of the future. 2030 will be a turning point for much worse if action is not taken now.

Anne Picot