

# Submission on the Draft NSW Clean air strategy 2021-2030.

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## **About DEA**

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors and students in all Australian States and Territories. Our members work across all specialties in communities, hospitals, and private practices. We work to prevent and address the health risks - local, national, and global - caused by damage to our natural environment. We are a public health voice in the sphere of environmental health with a primary focus on the health harms from pollution, environmental degradation, and climate change.

## **A Clean Air Plan for NSW**

Doctors for the Environment Australia welcomes the intention for a Clean Air Plan for NSW as concerted cross government action is needed to reduce health damage from air pollution in the state. Most of NSW has relatively clean air but there are locations in central and western Sydney, and adjacent to power stations and mines where populations are disadvantaged by exposure to worse air quality, and these populations generally suffer socioeconomic disadvantage as well. The principles of environmental justice should underpin the development of the state's clean air plan. It is disappointing that the plan does not specifically address the situation of those locations that have exceeded the annual PM2.5 standard for multiple years in the last decade.

We applaud inclusion of measures to reduce car use by supporting active transport and reducing travel demand. These measures not only improve air quality but also directly improve quality of life.

## **Long term trends**

Fine particle air pollution in NSW is getting worse, even when the 2019-20 fire season is excluded. This is demonstrated in figure 2, page 6, which shows rising PM 2.5 concentrations since a nadir in about 2010. The consultation draft claims it "*presents proposed actions to achieve further health gains for communities across New South Wales.*" The clean air plan therefore should have targets for reductions of PM2.5, as continued deterioration is not an acceptable policy. It should identify practical measures that can turn around this deterioration in the short term.

## **Pollution from electricity generation.**

The NSW clean air plan inadequately recognises the contribution of secondary particles from coal fired electricity to the total PM 2.5 burden. All the analysis presented on pages 16 to 18 are misleading as they are of only primary particles. Work conducted by ANSTO on samples collected at Richmond demonstrated that 14% to 18% of PM 2.5 was secondary sulphate particles attributable to power station pollution<sup>(1)</sup>. Secondary particles are an important component of PM 2.5 and should be included in a public consultation document.

The NSW Electricity Roadmap will encourage clean energy generation and inevitably bring forward the closure of some coal generators, but the Clean Air Strategy should be informing the closure order.

While NSW power stations all have effective fabric filters to stop fine particle pollution, none have the NO<sub>2</sub> and SO<sub>2</sub> controls required by regulations in the countries we usually compare ourselves to in Europe, North America, or North Asia. Pollution from coal fired power stations (CFPS) causes a substantial health burden, estimated by various sources as causing 45, 279 or 477 deaths per year<sup>(2,3,4)</sup>. The health impacts from the two Lake Macquarie power stations are larger than the three

others due to substantial local populations, and weather patterns that carry secondary particles to Sydney<sup>(5)</sup>. Air pollution and health considerations must be included in decisions about the closure order of CFPS. The closure order could be left to the market if the load based licensing (LBL) scheme had pollution fees that correctly reflect the scale of health damage, which would be many times higher than the current LBL fees<sup>(6)</sup>, but in the absence of an effective LBL fee structure the improvement in power station pollution should be managed by licence regulation.

Leaving health considerations out of decisions about the power station closure order would result in sub optimal outcomes for the people of NSW, with the most damaging power stations possibly being the last to close.

### **Domestic heating**

Wood smoke from domestic heaters is a serious problem causing an estimated 100 deaths per year in greater Sydney<sup>(2)</sup>, but the problem has been passed on to local government that appears neither equipped nor empowered to tackle it. Improving standards for new heaters does not solve the problem, as many heaters are old, and even new heaters are highly polluting unless operated under ideal conditions. The state government should take control of this issue, ban new installations in urban areas, and devise incentive schemes to improve home insulation and replace wood heaters with electric heat pumps. The worst affected towns, such as Armidale, could have a focussed program such as was done in Launceston, but this is beyond the capacity of local government.

### **Mine dust in the Upper Hunter**

The EPA mine dust enforcement workforce in the Upper Hunter is under resourced and needs the capacity to impose larger fines for breeches of environmental conditions. The usual \$15,000 fine is ineffectual. The companies responsible for breaches claim that loss of social licence and reputational damage is also considered a deterrent, yet there are companies who are repeat offenders in environmental breaches. A recommendation would be to increase the value of fines by a significant magnitude to act as a deterrent, with fines being allocated to the local community whose health was put at risk from the environmental licence breach.

The EPA has been quoted (transcript of IPC hearing, 25 March 2021, EPA/DPIE/IPC/NSW Health meeting re: Mangoola expansion) as stating that "...there are some fundamental limitations just due to the scale of and frequency of mining activity in this part of the world...". This was referring to the inability of the Dust Stop and other EPA programs designed to reduce pollution in their current format. With higher-than-expected air pollution levels, we would expect a stronger local EPA presence, but they are currently working from 1-2 hrs away. A local EPA office in Muswellbrook or Singleton with enforceable power to shut down operations and provide constant oversight is a bare minimum EPA standard given current conditions. The community should have a full time EPA employee in Muswellbrook and Singleton to provide confidence that EPA is monitoring the high-risk activities closely.

Load based licencing should be extended to include coal mining operations. This scheme is currently still under review and has been for many years, meanwhile the pollution from coal mining operations continues to be the predominant local industrial source. This scheme should be amended urgently to include coal mining operations.

### **Urban Planning decisions**

Urban traffic related air pollution is heterogeneous, with roadside concentrations markedly higher than background ambient levels. This was reflected in the recent rejection on health grounds of a childcare centre close to a busy road in Silverwater, Sydney (Land and Environment Court 2019 NSWLEC 1413). Children are especially sensitive to air pollution due to their immature capacity to detoxify a pollutant load, and higher respiratory ventilation rate per Kg body weight. Traffic related

air pollution has been documented in Australian research to be associated with increased asthma prevalence, and concerning new evidence from Spain has shown an association with slower cognitive development in school children<sup>(7,8)</sup>. The air pollution plan should include policies and regulation to prevent location of childcare centres and primary schools on busy roads, or diversion of traffic away from such facilities, as has been done in the London borough of Hackney.

### **Air pollution from locomotives**

NSW missed the opportunity to impose exhaust limits on locomotives in the 2020 license review. Locomotives have long operating lives, so tightening standards for new machines is not an effective strategy to reduce air pollution as it is for cars. There is now a federal process addressing off road diesel emissions, but it excludes coverage of locomotives. It is completely unacceptable in 2021 that diesel locomotives that run through urban areas do not have to meet any exhaust limits.

### **Recommendations**

1. Strengthen the clean air plan to specifically address the problems of those locations that have repeatedly exceeded the PM2.5 standard of 8 µg/m<sup>3</sup>.
2. Establish a mechanism to estimate the health burden of each of the five coal fired power stations to support installation of pollution controls or to ensure that the most damaging power stations close sooner.
3. Ban the installation of new wood burning domestic heaters in urban areas of NSW.
4. Establish an office of the EPA in the Upper Hunter with enough staff to enforce the dust control plans of the coal mines.
5. Develop appropriate policies to prevent location of childcare centres on busy roads, to reduce traffic related air pollution harm to young children.
6. Advocate with the Federal government to introduce national regulations that impose exhaust standards on locomotives, with a timetable for retrofitting old equipment.

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