Submission on Watermark Coal Project

DEA

Gunnedah, 11th December 2014

I'd like to pay my respect to the Gomeroi people, the traditional owners of these lands, and the elders past and present.

My name is Tim Senior, and I am a doctor, presenting here on behalf of Doctors for the Environment Australia (DEA). Thank you for the opportunity to speak to you today.

Like thousands of other doctors across the country, and like the doctors around here in Gunnedah, people come to see me with symptoms they are worried about, or about ways of staying healthy. Our role is to make an assessment, and offer advice about the best ways of treating their illnesses, and the best ways of staying healthy. Sometimes we will prescribe medication, and all the time we will offer information and advice about physical activity, diet and smoking among other things.

As I've done this work, I've increasingly realised that the treatments and advice I offer are useless if people just go straight back into the conditions that caused their illness. There are some activities that cause health problems that people have some degree of control over – smoking, or healthy eating for example. However, people can't choose which bit of air they breathe or which water supply to use or know whether or not their food supply is contaminated.

Which brings me to the health impact of coal, much of which arises from the pollution of water and air. These effects are

real, and have been researched across the world. I can even turn to an old medical textbook I have from 1920 describing coal miner's lung, or pneumoconiosis, which tells us "Klotz has shown that residents of Pittsburgh have an excessive amount of carbon, which leads to varying degrees of fibrosis." It is still mentioned in the most up-to-date medical textbooks. While it could be argued that coal miners know the risks of what they are doing, and occupational health and safety legislation has reduced the risk of coal dust for miners, the risk is still higher (by about 2%) for coal miners who have worked for 40 years in the mines. Measuring of coal dust exposure in mines has improved, which means we know that nearly 7% of all measurements showed a higher level of coal dust than the Australian National Standard allowed. As it happens, there is no safe level for air pollution. National guidelines are outmoded and Doctors for the Environment has made a submission on this to the National Environment Protection (Ambient Air Quality) Measure.

Miner Accidents

In contrast, other approvals contain recommendations that say:

If dust monitoring exceeds the relevant air quality criteria, then the company should:

- Give affected people a pamphlet, "Mine dust and you"
- Give them the figures so a medical practitioner can assist the resident in making an informed decision on the health risks associated with occupation of the property.

That leaflet, Mine Dust and You, is at odds with the latest evidence on the health effects of particulate matter, and simply advises people not to go outside, to shut doors and window and to run an airconditioner, (with cleaned filters – I am assuming you all clean your air-con filters regularly!)

Surely, if we need to make these suggestions to people, then the mine is significantly restricting people's freedom to live their lives. Ultimately, if you are affected by the dust, you are advised, see your doctor to see how you can move. That goes against most principles of public health. Not to mention that moving house is known to be one of the most stressful events people can go through, alongside divorce and death of a family member, and it triggers mental health problems.

It's also worth pointing out that coal miners are injured, or even die, more often than other miners, due to mine collapses, explosions and suffocation. We can all recall news stories about these events, and though they may be relatively rare, they are devastating for the families and communities concerned.

Those who don't get the choice, however, are those living in the areas around a mine. I don't get to give them advice to try breathing different air. I could advise moving, but that, surely, would be an admission that the mine shouldn't be there.

That is in fact exactly what I am told to advise!

The effects of coal mining on the surrounding communities are clear. To quote from a report prepared by Sydney University:

Adults in coal mining communities have been found to have:

- Higher rates of mortality from lung cancer, chronic heart, respiratory and kidney diseases
- Higher rates of cardiopulmonary disease, chronic obstructive pulmonary disease (COPD) and other lung diseases, hypertension, kidney disease, heart attack and stroke, and asthma
- Increased probability of a hospitalisation for COPD (by 1% for each 1,462 tons of coal mined), and for hypertension (by 1% for each 1,873 tons of coal mined).
- Poorer self-rated health and reduced quality of life

Children and infants in coal mining communities have been found to have:

- Increased respiratory symptoms including wheeze, cough and absence from school with respiratory symptoms although not all studies reported this effect
- High blood levels of heavy metals such as lead and cadmium
- Higher incidence of neural tube deficits, a high prevalence of any birth defect, and a greater chance of being of low birth weight (a risk factor for future obesity, diabetes and heart disease)

doctors like me

To reiterate, those are all problems that I would see in practice with long term implications for ther health and impacts on families and carers. Any treatment doctors offer won't have much benefit if people are just sent straight back to the cause of the problem.

The cost in dollars of the damage to health from coal in Australia was estimated in 2007 at $2.6 billion annually, taking in to consideration only a few of the many pollutants released. If damage to climate was included the cost was over $8 billion. We all pay for this as taxpayers.

Coal related health problems result in more Medicare-funded consultations to see a GP (and I doubt that GPs here feel they are sitting around without enough work to do already. They also result in more frequent hospital admissions – in fact shortness of breath is a symptom that often means people need to be admitted to hospital from the Emergency Department. A hospital admission is about the most expensive way to provide medical care, and I doubt that there is extra money earmarked for health care in this area as a result of having a coal mine.

We can set great store by our analyses of the effect of different particle sizes or the directions and strength of the winds. However, we don't get to control these, we don't get to move the mine round as wind directions change. My patients don't get to choose the particle sizes they inhale.

This serves to illustrate the complex consequences of coal mining. We can talk about the health consequences as if they are just another outcome that can be fixed – like roads

needing repair. It is very easy to see health consequences like I've just presented as a list of medical conditions, as a series of percentage increases. We can imagine just purchasing a bit of extra health with the extra income gained from mining. However, health is valued by people because it enable us to do the things in life that are important to us. The two symptoms that affect quality of life most are being short of breath, and pain. Being short of breath stops us doing daily activities like vacuuming our house, walking the dog, meeting our friends, all the other things that are important to us. The same is true for the chest pains that come with ischaemic heart disease, the inability to use half your body caused by stroke, the fatigue that come with renal failure. For children, the consequences are massive. Days off school, heavy metal contamination, birth defects give rise to long term health problems and learning difficulties that make it that much harder to finish school, get a job or do further study.

Other effects with long term complex consequences for health are on mental health and social outcomes. Of course, the health outcomes described above have social and mental health consequences. Being near and able to access nature is important for mental health, and destruction of this is risky. We saw in Morwell the severe consequences of a mine fire for residents. Similarly the contamination of water supplies and aquifers from mining coal is well recognised and can't be undone. This is water used for irrigation, swimming and drinking, not to mention being essential for the local environment. It's not merely a commodity. Even with tight regulation, we know that accidents will happen. Even the

current proposed conditions put on the Watermark mine for a recommended approval are strongly opposed by Shenhua. We can expect that they will fight any proposal that even begins to approximate the true cost to people of the mine. The impacts of coal mining so close to prime farming area potentially magnify these effects. It's attractive to try to pretend that we can have mining without it affecting our food supply, but that may well be just a nice pretence. Certainly, we have no alternative to eating food, but we do have alternatives in our energy supply.

If a coal mine did open here, I am aware that the coal would be burnt overseas. Clearly, the local health effects of burning coal will be exported with the coal itself, not experienced by this community, but that does not mean that the effect of air pollution from burning coal does not matter. We also can't ignore the fact that burning coal produced from here contributes to climate change, which will have the most profound health effects all over the world. The IPCC has said we need to phase out coal power generation by 2100, in order to avoid global warming of over 2C. Contributing more coal at this point in time is not heeding this warning.

In summary, people value their health because that is the enabler for everything else they wish to do in life. The health effects of mining coal, not to mention then burning it, are highly detrimental to health. They will result in increased health care costs, and costs to society that are never factored in to the assessments of mining. Some may say that the money generated in the short term is worth more than the

health impacts on the community. But the only true accounting for the cost of coal includes the costs to health, environment and climate. A true accounting including these externalities was done in US and found the price of electricity from coal doubled or tripled.[4]

In medicine, one of our professional mantras is thousands of years old – above all do no harm. If this mine goes ahead all the science shows it will cause lasting illness in some inhabitants in Breeza and nearby areas within several kilometres. You will be trading their ill health with all its costs, to proceed with this development. If this mine goes ahead patients will go to see their doctor but be sent back out into the same conditions, into air containing coal dust, to land with contaminated soil and water. To choose this coal mine is to choose to do harm and to say the people here don't matter.

Thank you.

References

Colagiuri R, Cochrane J and Girgis S (2012) Health and Social Harms of Coal Mining in Local Communities: Spotlight on the Hunter Region. Beyond Zero Emissions, Melbourne, October 2012. Accessed at http://sydney.edu.au/medicine/research/units/boden/PDF_Mining_Report_FINAL_October_2012.pdf

Castleden WM, Shearman D, Crisp G and Finch P (2011) The mining and burning of coal: effects on health and the environment. The Medical Journal of Australia, 195(6), 333–335.

Climate Council (2014). Briefing paper. Health effects of coal. 2014 Available at http://www.climatecouncil.org.au/uploads/d2b6cbbfff522e700c99f3c4e3c0aee0.pdf

4. Paul R. Epstein, Jonathan J. Buonocore, Kevin Eckerle, Michael Hendryx, Benjamin M. Stout III, Richard Heinberg, Richard W. Clapp, Beverly May, Nancy L. Reinhart, Melissa M. Ahern, Samir K. Doshi, and Leslie Glustrom. 2011. Full cost accounting for the life cycle of coal in "Ecological Economics Reviews." Robert Costanza, Karin Limburg & Ida Kubiszewski, Eds. *Ann. N.Y. Acad. Sci.* 1219: 73–98. http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.2010.05890.x/full