

Objection Statement

As a medical student and future health professional residing in the Newcastle area, I strongly object to the Glendell Continued operations project that will result in an increase in fine particulate matter (PM 2.5) both in the immediate vicinity of the mine site, and globally, due to the burning of coal derived from the site. In addition, the burning of coal derived from the mine site will contribute to the worsening of Climate Change.

I have a great concern for the health of our state, as well as the world at large. The human health risks of both PM 2.5 and worsening climate change are clearly defined, and opposition to initiatives such as the Glendell Continued Operations project are echoed by over 17 000 medical students in official policy of the Australian Medical Students' Association (AMSA), along with Doctors for the Environment Australia (DEA).

Links to the relevant policy documents are included below:

Climate Change and Health Policy:

https://amsa.org.au/sites/amsa.org.au/files/Climate%20Change%20and%20Health%20Policy%20%282017%29.pdf?fbclid=IwAR2cU7gCOi_tQK1q4Jr6lZqECeiHzrJXRZ6BqzKIKiA6xhYrtW9QYxaLONA

DEA Ambient Air Pollution: <https://www.dea.org.au/wp-content/uploads/2014/05/DEA-Policy-Ambient-Air-Pollution-June-2017.pdf>

In addition, I would like to include the words of a colleague, with whom I wholeheartedly agree.

I would like to voice my profound objection to the Glendell Continued operations project that would see an increase in mining activities to the extent of an additional 140 million tonnes of ROM coal at an increased rate of 10 million tonnes per annum.

My grounds for opposition include both the proximate and distal harms, to human health, the local environment, and the serious contribution this would have towards increasing greenhouse gas emissions. With respect to human health, the soot, coarse, and fine particulate matter (PM 2.5) associated with combustion of coal in any context represents a known risk factor for respiratory illnesses of asthma, Chronic Obstructive Pulmonary Disease, and is known to be carcinogenic (Finkelman and Tian, 2017; Burt, Orris and Buchanan, 2013), among a diverse many other air-pollution associated conditions ranging from infections to degenerative diseases (Wei et al., 2019). In short, the immediate risks to human health from combustion of fossil fuels are well defined, tangible, and therefore the deliberate decision to permit increases in usage completely

undoes hard-won public health gains and progress in other areas such as vehicular emissions. With respect to the local environment, impacts of coal mining are diverse, often unanticipated, and consistently deleterious to local flora, fauna, ecosystems, and the natural world in a grounded and tangible way. Coal mining generates waste, leads to degradation and contamination of groundwater, waterways and streams, leaching of toxic substances and heavy metals into the ground with impacts on plant growth and ecosystem bioaccumulation, and necessarily leads to further environmental impacts from the infrastructure required for transport (Belmer and Wright, 2019; Carlson and Adriano, 1993; Castleden et al., 2011). Furthermore, coal as a non-renewable resource and greenhouse gas emitting source of energy, represents one of the key drivers of carbon dioxide emissions and anthropogenic climate change. As carbon dioxide levels continue to soar to unprecedented levels, as soberingly some of the most robust and longstanding scientific monitoring attests (ESRL Global Monitoring Division, 2020), how can we as informed citizens of such a resource blessed and sun soaked nation as Australia continue to support an industry we know to be actively harming the world around us, our fellow humans, the creatures great and small with whom we share this tiny and fragile blue marble, and our children - those whose life and health will be defined by a changing climate if we do not act now with all our might (Watts et al., 2019). I urge you to please act now, at this pivotal moment in the history of our planet, to safeguard that which is most precious.

References:

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- Carlson, C and Adriano, D (1993) 'Environmental impacts of coal combustion residues'. *Journal of Environmental Quality*. 22(2):227-247. DOI: 10.2134/jeq1993.00472425002200020002x.
- Castleden, W, Shearman, D, Crisp, G and Finch, P (2011) 'The mining and burning of coal: effects on health and the environment'. *Medical Journal of Australia*. 195(6):333-335. DOI: 10.5694/mja11.10169.
- Finkelman, R and Tian, L (2017) 'The health impacts of coal use in China'. *International Geology Review*. 60(5):579-589. DOI: 10.1080/00206814.2017.1335624.
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Wei, Y, Wang, Y, Di, Q, Choiart, C, Wang, Y, Koutrakis, P, Zanobetti, A, Dominici, F, Gamble, C and Schwartz, J (2019) 'Short term exposure to fine particulate matter and hospital admission risks and costs in the Medicare population: time stratified, case crossover study'. *BMJ*. 367:L6258. DOI: 10.1136/bmj.l6258.

ESRL Global Monitoring Division (2020) Trends in atmospheric carbon dioxide [webpage]. Available from: <<https://www.esrl.noaa.gov/gmd/ccgg/trends/>> [Accessed: 12/02/2020].