Submission in Objection
to the
Amended Rocky Hill Coal Project

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12th October, 2016.

I have made no reportable political donation

The NSW Government has a duty of care to all of the people in the State.

In very simple terms, the role of Government is to look after the interests of its citizens. To allow Gloucester Resources Limited (GRL) to proceed with the Rocky Hill Coal Project (SSD 5156) is not in the interests of its citizens and should be rejected by the NSW Government.
For any Government to approve any new coal mine, whether for thermal or metallurgical coal, is reprehensible given the present state of global warming. It matters little if the coal is converted into coke at Gloucester or elsewhere, as there will be an impact on world climate via increased greenhouse gas emissions. Over the 21 year life of the mine, at least 38 million tonnes of carbon dioxide will be emitted and it is shear fantasy to expect GRL to plant 20 million trees to offset this. This is without even considering the impact of methane dissolved in the water from deeper sections of the coal seams.
Even though the Gloucester Rocky Hill Coal Project (RHCP) is the smallest coal mine in Australia, we need to be mindful of the cumulative impact of the numerous coal extractions already taking place world wide. Extensive scientific work has been undertaken which concludes that coal mining needs to cease and other less polluting alternatives found. In steel making for example, Bruce Steiner, president of the American Coke and Coal Chemicals Institute, says many integrated steel and iron companies are turning to natural gas over coal because it's both cheaper and more abundant than coal. That trend has especially taken hold in smaller operations overseas, where coal must be shipped in. Over the long term, he says, research is developing alternatives to blast furnaces, which are expensive to build.

Pollution
The citizens of Gloucester will be adversely affected by this Project, if it were to proceed, in that they will be affected by increased levels of pollution.
Air pollution is a major environmental risk to health. Elevated levels of of common

air pollutants can result in an increase in respiratory and cardiovascular effects in humans and contributes to premature deaths and cancer risks. It is estimated the the RHCP will contribute nearly 500 premature deaths if it were to proceed.
Although Gloucester's air quality is generally good, the concentration of ambient air pollutants due to bush fires, hazard reduction and farm management practices can exceed the national standards occasionally. If the Project were to proceed, then the cumulative effect of air pollutants from the Project would exceed any acceptable community standard. Clean air and water are privileges enjoyed by residents of Gloucester.
Combustion related air pollutants from non-road and road haulage machinery are of particular concern given their health risks. The EPA has stated that they are cancerous in nature. Emissions from diesel engines include particulate matter (PM), oxides of nitrogen (NOx), volatile organic compounds (VOCs) and an array of toxins (e.g. benzene, toluene and 1,3-butadiene). PM emitted from diesel combustion is mainly comprised of fine particles having an aerodynamic diameter of less than 2.5 micrometres(PM2.5). Fine particle emissions are associated with premature deaths and adverse health effects such as cardiovascular and respiratory effects, and can lead to an increase in the number of emergency room presentations and hospital admissions.
The International Agency for Research on Cancer (IARC), which is part of the World Health Organisation, recently classified diesel engine exhaust as carcinogenic to humans, based on sufficient evidence that exposure is associated with an increased risk of lung cancer. NOx and VOC emissions from from diesel engines contribute to ground level ozone formation which is used as an indicator of photochemical smog. It is reasonable for an intelligent person to conclude that this could occur within the tight confines of the Gloucester Basin and frequent temperature inversions.
The quantity of diesel used within 142 HA site needs to be considered as the EPA have considered that mining operations are six times more polluting than road diesel emissions.
In October 1996, the Stratford coal mine, which is of similar size to the proposed Project used 1,116,521 litres of diesel which is about a thousand tonnes. So one would expect that in excess of a million tonnes of diesel per year will be burnt within a 5 square kilometre area in an enclosed valley subject to frequent temperature inversions and a prevailing wind that will shift this toxic bloom towards the township of Gloucester. If 60 tonne trucks are used for haulage of coal then this translates to 600,000 truck movements which will spread PM2.5 pollution 9km along the Avon River valley. Burning over a million tonnes of diesel per year for 20 years is just too much. This Project posses an existential threat to the Gloucester community.

I have mentioned temperature inversions which have been lightly glossed over and ignored by the EIS. There has been no attempt to measure the lapse rate which is the temperature variation with height over the Project area or surrounding district. This is a glaring omission and without sufficient data, then GRL can maintain that it has minimal impact upon pollutant particulates and noise. This information is vital in order to have a sensible discussion concerning the health impacts of pollution.

Particulate Emissions

Dust particles will remain within the mine area and then at the end of each working day, the counter will be reset to start from zero dust levels is the message contained within the EIS. This is a fabricated rosy picture. But in reality there will be a 9 kilometre dust catchment extending along the Avon River. The EIS indicates that dust will be suppressed using water from the site. Again a false inference is that fresh clean water will be used, but in reality the mine site water will become progressively more contaminated with salts and other toxic substances. These are issues that will be difficult to mitigate as the suppression water will become more polluted by evaporative effects which in turn will lead to more toxic particulate matter. i.e. the dust stirred up by machinery movements will become more toxic as the Project progresses.

So too will dust, dirt and mud adhering to haul vehicles as they leave the mine site to enter the haul road. this matter will fall onto the road surface to be washed into the streams and concentrate in the small holding dams. Overflow from these will enter the Avon River. There is no indication that the vehicles will be washed before leaving the mine site. The fact that the haul road is private is irrelevant in the prevention of particulate pollutants entering our rivers. The haul road cannot be simply hosed down.

The impact of the frequent temperature inversions on the distribution of particulates has been trivialised and discounted but I assert that the topography, temperature inversions as well as the prevailing wind direction will impact negatively on Gloucester.

Diesel, blast and dust emissions from the mining operation must be considered collectively with the wind erosion of overburden and uncovered coal stockpiles and haul trucks. One does not need much imagination to visualise hot windy summer days that rapidly evaporates allowing the dust to mobilise.

There is no threshold which particulate pollution exposure is not harmful to health as stated by the World Health Organisation.

The World Health Organisation has developed Air Q+ tools for measuring pollution and the question arises as to why this methodology was not considered for this project.

Noise

Most complaints about mining operations relate to noise. There is local evidence that the noise as experienced by local residents at a nearby mine at Stratford exceeded the modelling as suggested by the Stratford Mine EIS.

The noise impact will be assessed using the Industrial Noise Policy which was developed overseas in an industrial location in no way similar to the quiet rural setting of Gloucester where the ambient night noise levels are in the order of 20 decibels.

Using a reference of 30dB is out of order for Gloucester. Much of the noise currently

will be problematical to say the least.
Water from storm events, which are a common feature in Gloucester's weather, will erode the waste rock mounds which used to be called mullock heaps and not amenity barriers. Regardless of what they are called, they will be difficult to stabilise and vegetate. They will be prone to gully erosion. The effects of which is open to speculation, e.g. debris could quickly fill the small sediment dams allowing run off into the Avon River. These sediment dams are located on the flood plain and will overflow during prolonged rain events.
The EIS allows or plans to release sediment and brine waste outside the mine site in order to allow continued mine production in prolonged rain events. This is unacceptable.
A series of technically competent photo montages suggest that a newly built ridge composed of a mixture of overburden waste and coal rejects can within a few years become a pyrotechnically stable vegetated hillside, where cattle and native animals wander at will. This is fanciful as one only need to travel to Stratford to see the lack of vegetation on the overburden heaps. The EIS implies that vegetation cover will be instantaneous as shown in the photo-montages which GRL have taken great pains to point out during the exhibition period.
A reverse osmosis (RO) is a process suggested to remove salt from the heavily contaminated water and then allow the "cleaned" water to be used for irrigation. There is no discussion re: pretreatment which will be required to remove the heavy metals and other contaminants before RO begins to remove the salt.
The concentration of salt brine after salts are removed is also not discussed. After all this will be the material that GRL will release into the river system at various times, Neither is the method of disposal of the 38,000 tonnes of salt discussed. Except to an approved facility is all that is mentioned.
AGL had to transport their brine waste to Queensland for disposal. I doubt that the communities of NSW will be lenient towards GRL (given their response to AGL), even if the EPA allows for disposal in NSW. It is a political reality that the citizens of NSW will not allow this to happen.
The mullock heaps will comprise waste rock, coal and contaminated water. Minerals in the coal, like pyrite will weather and be leached from the overburden that is stockpiled above the original surface level. How will this be monitored and mitigated?
After the landscape has been methodically groomed with overburden and waste at the end of the mining operation there will be a problem of the permeability of this material filling the void. Water will filter through, leaching as it goes and not remain on the surface. I fail to see how a water course can be reconstructed over 200 or so metres of unconsolidated overburden. To suggest that this will occur is fanciful to say the least.

Landscape, post mining

I find that calling waste heaps of overburden "amenity barriers" is deceitful and demonstrates that GRL hold the Gloucester Community in contempt. Honesty is the start of meaningful consultation.

There must be a space issue for the storage of waste, as amenity barriers are proposed to the north and south of the mine site. There are very few people, living directly north or south of the proposed mine site. From whom does the mine needs to be hidden? And who is being screened? Again, the word contempt comes to mind.

There is no discussion as which serial progression regime is going to be used for the re vegetation process. It is naive to suggest, as the EIS does, that the mullock heaps will become instantly re-vegetated, Refer to my earlier comment re: photo-montages

To imply that it will be better than the original landscape is dishonest as demand for water to establish pasture grasses will be high on the unconsolidated fill and GRL will, I assume, be relying on natural rainfall rather than an expensive irrigation process. The is no mention of the time period required for a stable plant community to be established, nor how much irrigation will be undertaken, if any.

A very real concern relates to the possibilty of the mine ceasing operations due to financial reasons and no re vegetation occurs.

Past experience demonstrates that the NSW Government is reluctant to require miners to implement rehabilitation programs that had been proposed in their EIS.

Geology

Even with the now attractive price for coking coal, there is an argument that there is sufficient accessible coking coal to make the project viable. The seams are deeply dipping and extensive faulting occur across the Gloucester Basin. In addition there are many seams of coal (some of which are very thin) and many sedimentary layers. These are serious problems for GRL to overcome. Stratford Coal had previously held an exploration licence over the area. Stratford Coal relinquished the licence because there was not sufficient accessible coal to warrant their expansion to the north. GRL then took up this licence over the same area. The question that needs to be asked is "How can GRL make a profit, when they do not have any processing or rail delivery infrastructure, when Stratford Coal who declined to extract coal even when they have such infrastructure already in place?"

In the interests of the Gloucester Community, the Rocky Hill Project – Application No SSD 5156 should be rejected and the licences be acquired by the NSW State Government and quarantined from any future mining exploration.

Thanking you

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