

Social Impacts of Mining in Mudgee area

1. Loss of generational farming communities

The Ulan area has many families descended from the first white settlers in the region. Their land titles have only been in one name. Ulan coal mine commenced buying out these families in the early to mid 1980's. The new Moolarben proposal is continuing to erode the social continuity of the area. Families from the village of Ulan are also being bought out.

2. Loss of social cohesion in isolated communities

The Wollar area has lost a substantial population which had children at the local school, members of the Fire Brigade and customers of the local businesses. The Ulan general store closed down; there are concerns that Ulan School will have to close due to the close proximity of Moolarben Open Cut mine. Both villages have been impacted by loss of social cohesion.

3. Loss of productive farming land

The open cut mine proposals for Moolarben will impact on prime agricultural land with good permanent ground water. Some of the most fertile and productive land in the region is in the Moolarben Valley.

4. Loss of water supply

The loss of base flows to creeks and rivers caused by destruction of groundwater systems (or aquifers) is a major problem for the environment and local water users. The loss of bores (or bore pressure), soaks and springs can also occur. It is very difficult to prove that a neighbouring mine is the cause of the water loss and pre mine studies of groundwater in the region have been piecemeal and inadequate. A regional groundwater study is needed. Compensation for loss of water does not help a farming enterprise

5. Noise, Dust and light pollution

The industrial noise guidelines set by the state government are far higher than the background noise levels in remote rural areas. Low frequency vibration from large mine machinery operating 24 hours per day is also not adequately monitored or regulated. There have also been reports that some local people have been subjected to loud horns from passing road and rail traffic at odd periods throughout the night.

Dust levels and increased diesel fumes concern neighbours and local community members both in and outside the so called the 'affectation zone'. Local weather patterns and temperature inversions have a great deal of influence on air quality impacts. Monitoring is not continuous and is reported in averages. This negates the influence of spikes in dust and air borne contaminants due to winds speeds and direction

Coal Mines are obliged to monitor particulate matter of 10 micron or less dust particle (PM₁₀) emitted to the air (Australian Standard 2222). Dust particles less than 10 micrometers in diameter (PM₁₀) come from crushing or grinding operations, and dust from paved or unpaved roads. They pose a health concern because they can

be inhaled into and accumulate in the respiratory system, the finer the more invasive. However monitoring does not adequately measure the more dangerous very fine dust particles that are less than 2.5 micron in diameter (PM_{2.5}) emitted from all types of combustion (diesel motor vehicles, power plants). See attached article below.

Mine lighting creates a form of visual pollution that obscures starlight. A clear night sky, highly valued by many people seeking a quieter country lifestyle can be obliterated by a large Coal Mine.

6. Tourism

Tourism operators near the proposed Moolarben Coal Mine are concerned about the impacts on their holiday retreat and vineyard businesses. Local eco retreats “Goulburn River Stone Cottages” and ‘Ruwenzori’ both offer their guest peace, quietness and an amazing night time vista. Potential customers are unlikely to travel over 4 hours from Sydney and Newcastle for a holiday beside a coal mine. Suggestions that mine workers will increase occupancy rates are misleading – such clientele do not suit the type of accommodation offered in bush retreats, preferring the convenience of the main towns.

6. Loss of property value

Properties outside the immediate coal resource area that have not been identified in the Government’s conditions of approval as being eligible for purchase by the mining company can lose market value. This is because of the impacts on the local amenity. Some properties also lose convenient access routes.

7. Increased traffic movements

Large increases in traffic flow along the Cassilis Road have caused major concern to local residents and school bus operators.

The transport of large machinery and equipment to the Wilpinjong mine site during construction was additional to the regular shift traffic from Ulan mine. Wilpinjong was approved with the main traffic route being the Wollar-Mudgee Road. The mine is now applying for a consent variation to continue using the Cassilis Road.

If the Moolarben mine is approved the large machinery and equipment during construction will be using the road along with shift change traffic from two other mines. Then a third fleet of mine workers will use the road on a daily basis.

The cumulative impacts of these increased traffic movements have not been adequately addressed in any planning documents.

8. Increased rail movements

Coal trains are very heavy and very loud. The increased train movements on the Sandy Hollow line to Newcastle were not included in any noise studies conducted during the Wilpinjong or Moolarben environmental assessments. Coal train movements of up to 4 a day through Mudgee, Gulgong and Kandos may also occur if Moolarben mine is approved. The impacts on rail crossings and traffic flow in the towns have not been adequately assessed.

Every Breath You Take

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There are many good reasons to reduce our dependence on fossil fuels, apart from the much publicised problem of global warming. One is the generation of fine particulate matter that arises from burning fossil fuels. New research has revealed that these fine particles are particularly hazardous to health.

Particles less than ten thousandths of a millimetre (10 microns) in diameter can penetrate deep into the lungs and then into the blood stream. By comparison a human hair is about a 100 thousandth of a millimetre in diameter. The fine particles are produced by burning fossil fuels and biomass and by various industrial processes, for example power plants, petrol and diesel exhaust, wood fires, land clearing, ore processing and refining.

Researchers at Johns Hopkins School of Public Health in the US have found that an average increase of just 0.01 milligrams per cubic metre (mg/m³) of these particles over 24 hours will increase the overall death rate by half a percentage. So if 100 people die each day in a large city, then an increase of 0.02mg/m³ averaged over a day will mean an extra death that day.

Standards in the US restrict the daily average of these particles to 0.15 mg/m³. However the researchers, who studied 20 major US cities over a number of years, found that though all the cities were well within that standard, extra deaths were being caused. This was after taking account of other differences between cities such as socioeconomic status, access to health care, weather and temperature, other pollutants in the air and influenza outbreaks.

The researchers estimated that between 20 and 200 early deaths are being caused each day in the US by these tiny dust and soot particles; that is between 7300 and 73,000 deaths per year. These deaths are mainly from respiratory illnesses, but also heart attacks, with elderly people being the most vulnerable. The American Lung Association estimates that these particles together with urban smog also cause 400,000 asthma attacks each year and respiratory problems for a million people in the US.

A Sydney study done by NSW Department of Health researchers found an increase of 0.025 mg/m³ of these particles resulted in a 2.6% increase in deaths each day, double the increase found in the US study. The researchers estimated that in Sydney there were an additional 397 deaths each year due to exposure to these particles.

The goal in Australia, set by the National Environmental Protection Council, is that by 2008 an average of 0.05 mg/m³ over 24 hours would only be exceeded 5 days per year. The Council estimated the health benefit of meeting this goal would be worth some \$4 billion. **The Council is currently reviewing whether there should also be a separate standard for the finer and more dangerous 2.5 micron particles.**

Efforts in the US (since 1997) to regulate 2.5 micron particles have been obstructed by court challenges from industry groups which argue that the cost of meeting such standards is too high. Compliance is estimated by the Environmental Protection Agency (EPA) to require a \$10 billion investment and by industry to require a \$60 billion investment. But the health benefits are estimated by the EPA to be \$20-100 billion every year, clearly much higher.

In February this year, in the case of EPA v. American Trucking Association, the Supreme Court ruled that the EPA did not have to consider costs in setting air quality standards and confirmed the legitimacy of its regulation of 2.5 micron particles.

Elements of the fossil fuel industry have already shown themselves to be opposed to the establishment of the 0.05mg/m³ Australian goal. Significant reductions in fine particulate matter and associated deaths will not be achieved without strong political will, and what we have seen recently in Australia and the US with regard to reducing fossil fuel dependence to avert global warming is not very encouraging.

References:

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