

Submission
No 422

INQUIRY INTO COAL SEAM GAS

Name: Ms Kate Boyd

Date received: 7/09/2011

Submission to NSW Legislative Council inquiry into Coal Seam Gas mining

from Kate Boyd, Armidale, NSW

Overview

Coal seam gas exploration and mining have unacceptable environmental and social effects. I will outline below some of the likely effects that concern me. These effects are unnecessary because sufficient energy to meet the basic needs of the people of NSW and the rest of the world can be obtained from renewable sources in ways that have much less environmental impact and better social effects.

I do not believe that all or even most of the unacceptable adverse effects can be avoided through the best intentions of mining companies and regulators and implementation of the best methods available. The risks associated with coal seam gas mining and some exploration activities are substantial and hard or impossible to consistently avoid, as demonstrated by the exploration and mining that has already occurred in NSW, Queensland and overseas. People have limited knowledge, make mistakes and act with other factors in mind, such as the satisfaction of being involved in a project which is profitable.

Financial viability is not synonymous with economic desirability. The economic effects of coal seam gas (CSG) mining should not be considered to outweigh the adverse environmental and social effects: It is not appropriate and it is no longer acceptable to consider writing off environmental values, nor the needs of any section of the community, to meet economic objectives or to meet the aspirations of a different section of the community. Only new developments that are consistent with environmental should be considered as potentially "economic" because our society and its future ultimately depend on the environment. Meeting social objectives is also important – our social fabric can be sensitively reshaped but the basic mental and physical needs of individuals who make up communities should not be ignored as this rapidly deteriorates that fabric from which our economy is made. The economic needs of the people and State of NSW can be met by encouraging investment in activities with "triple-bottom-line" benefits notably use of renewable energy and increasing energy efficiency. We can do well without CSG.

No new coal seam gas mines should proceed. Exploration for coal seam gas should end now.

Term of Reference 1: Environmental effects

1. Mining and exploration – Pilliga example

The existing CSG exploration and trial mining in the Pilliga area by Eastern Star Gas have already caused significant unacceptable effects including clearing of valuable forest habitats; pollution of land and creeks both early in that exploration and recently; release of methane into the atmosphere; release of carbon dioxide when gas from the trial mine is burnt.

I have visited this area and seen some of the clearings and stood outside a fence that excluded me from an area of the publicly owned “State Forest” that has been cleared for a well and evaporation pond. I was appalled to here that the trial mining operation has been permitted without a development consent, nor need of approval under the Native Vegetation Act, let alone opportunity for prior public comment— so many other smaller developments including mines need at least a Development Approval. The law should be changed so that trial mines require Das and so that exploration and mining are subject to the Native Vegetation Act and water management laws.

I know that revegetation is likely to be required but as an ecologist who works in revegetation and rehabilitation of woodlands I also know it is unlikely that the vegetation will ever be equivalent to what it was and that the impacts on fauna will be much worse than the percentage loss of forest. If the mine proceeds as proposed about 2400 ha will be cleared. Fragmentation of the remaining habitats and of the home ranges of individual birds, mammals and reptiles by clearings for pipelines, electricity and wells will make many home ranges unviable, leading to substantial population declines. Even the State Forest areas in the Pilliga Scrub have high values for many species including some threatened species.

Contamination of aquifers is a serious issue, both for the ecosystems and wildlife they support and for the people who use them or may want to use them in the distant future. Risks such as addition of chemicals should not be taken. It is possible that there has already been some contamination of underground water layers, either in the Great Artesian Basin or other layers, that were naturally separate from the coal seams but have now been linked by wells that may not have been perfectly sealed – how could we know whether they are all perfect? If this seems unlikely, consider the greater likelihood of contamination in the distant

future when the wells and any materials used to seal them deteriorate or if they are damaged by earth movements, perhaps hundreds or thousands of years hence. This could affect people or ecosystems in the future. If a mine is approved here and any chemicals are added to assist gas extraction the effects may be worse.

Other water quality issues are already arising from the need to store, use or “dispose of” the salts in the water extracted from the coal seams. This seems likely to become a very big problem.

CSG mines on grazing or cropping lands would also have serious impacts. Not only should our best cropping land be protected, along with the ability of farmers to do their farming and live their lives in practical, healthy ways. We need all the land suitable for cropping to stay suitable and all the land that is suitable for grazing to retain its suitability, not be damaged nor made less useful by contamination of water supplies

2. Gas pipelines

There has been community debate about where a gas pipeline to link gas fields with existing pipelines or towns should go. Suggestions that the pipeline should go along road reserves and travelling stock routes not in private or farm land are quite unacceptable from an ecological perspective. Most travelling stock routes and many road reserve have native vegetation of high or very high environmental value. It is not only the trees that are valuable but the diverse native groundcover. These are often the best remnants of grassy woodland or other ecological communities in the local area but are under enormous threat from weed invasion. The disturbance associated with building pipelines along them would greatly reduce their value, especially if buried, because more weeds are likely to be spread in the process and many of the herbaceous species are very hard to re-establish. If a pipeline is built it should be on previously cleared land that does not have native groundcover – that will normally mean farmland or exotic pasture. It should not go through soils where it will contribute to erosion risks or where natural soil movements could damage the pipe and cause leakage risks since these would be fire risks as well as serious greenhouse gas pollution that may not be noticed for some time. The landholders should be fully compensated.

3. Green house gas emissions

I consider the green house gas emissions from fugitive releases, burning of gas for energy instead of using renewable energy technology, and from compression and cooling of the gas to liquefy it for export to be a totally unnecessary danger to our world environment. That means a danger to other species as well as people all over the world.