

**Submission  
No 225**

## **INQUIRY INTO COAL SEAM GAS**

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I am writing to voice my very strong opposition to the irresponsible way in which the rapidly growing industry of extraction of coal seam gas (CSG) or coal seam methane (CSM) is being conducted. This is the first time I have written a submission for such an enquiry.

I live in Bowral, NSW. I am not an environmental activist, but environmentally aware. Like many regional Australians, my family has a strong connection with the land, natural and rural ecosystems and a strong awareness our environment of which we are a part, not separate to.

I have a bachelor degree in Science, and although I am not a hydrologist or geologist, I have an understanding of the risks posed by the process of "fracking".

I might also add that I grew up less than 1km from the main shaft of a coal mine in Douglas Park, NSW. So I am no stranger to mines, their benefits to communities and the economy. I am also acutely aware of the environmental destruction they cause.

I am extremely concerned about CSG for several reasons:

1. My concern with the fracking process is that escaping or "fugitive" CSG can have devastating and lasting effects. It doesn't matter if this is in the bush, in farmland or in the inner city suburbs.

I have seen, first hand, the devastating effects of "accidental" release of CSG on plant and animal life. In the mid 1990's, CSG, released as a result of cracks caused by mine subsidence, devastated the Cataract River with deadly effect on riparian vegetation and aquatic life. The Cataract River, part of the Sydney water catchment, formed the boundary of our family farm in Douglas Park. Cracks from mine subsidence not only fractured the river bed causing the creek to drain, it also allowed significant amounts of high molecular weight gas components (C<sub>2+</sub> >2.3%), including C<sub>6</sub>-C<sub>8</sub> n-alkanes, branched alkanes, alkylcyclopentanes and alkylcyclohexanes to escape. The result of this was that the soil became anoxic, as the methane replaced oxygen in the soil. Gases escaping at a rate of more than 20l/s led to soil temperatures of over 40 degrees. Vegetation was killed by both increased temperature and oxidation

of methane gas and its homologues in the soil. This is well documented. The carbon isotope signature of the methane was similar to that found in **CSG**.

Further, **CSG** which escapes either from the wells or from cracking in the rock base, is going from being stored underground, either into the soil or water, (rendering it toxic and unfit for life), or into the atmosphere contributing to the already problematic high concentration of atmospheric greenhouse gasses.

2. I am concerned about the health implications of **CSG**. Extraction of gas is being carried out too close to residential areas, both rural and urban. The process involves the use of a dangerous chemicals, creates toxic waste and often fugitive gas. Contamination of groundwater can also poison surface water, water to be drawn from bores and soil. This poses unacceptable health risks for individuals and communities. Fining companies after contamination occurs is not good enough. Risks involving public health should not be taken.

3. I am concerned about the fracking process on **groundwater**.

Water is a precious, essential substance for every form of life, wasting it for **CSG** extraction and risking damaging and contaminating groundwater aquifers is reckless and unnecessary. It puts at risk everything that depends on groundwater, its associated surface water, natural ecosystems,

agricultural land, animals and humans. I think this should be of huge concern to every citizen. No life can survive without water. Australia is the driest continent on the planet, not only is water scarce, we already have huge problems with water salinity in agricultural areas. I find it unthinkable that in our blind haste to procure CSG for energy, we would deplete our aquifers, risk their contamination, and then subject the highly contaminated, saline water that results from fracking, to the energy intensive process of reverse osmosis, to render it suitable for reuse.

4. I am concerned about the risk CSG extraction poses to the health of agricultural land.

Australia has limited arable land for food production. It also has limited water supply. I am very worried that we would risk short and long term contamination of agricultural land. As well as posing risks to our ability to produce food, it also risks the livelihood of farmers. Gain for mining companies at the expense of farmers and farming communities is not acceptable in my view. The mining industry is already creating issues for other industries. Ultimately, as a community, we can focus on better management of energy, whether it is in the adjustment of our usage, or in developing safe and renewable sources.

However, population increase is continually putting pressure on land available for agriculture while at the same time creating demand for higher food production. Agriculture is under pressure, rising food prices globally are

testament to this. Why would we risk damaging agricultural land in this way.

Ultimately, we can live without gas, but not food.

5. I am concerned about the surface impact of CSG mining.

I have stepped out of the car to observe an exploration well close to Campbelltown on the F5 freeway. It was noisy, lit up at night, had trucks arriving at and leaving the compound and had an amount of associated infrastructure which was industrial, unsightly and disruptive to any rural, urban or scenic landscape. It is inconceivable that any government institution could allow a network of such wells in some of the areas where exploration has been given the go ahead, such as the scenic rim in northern NSW, around the south western perimeter of Sydney (Camden, Catherine Fields), Sutton Forrest. As well as the impact these wells have on rural and residential areas, they also cause problems for tourism, a significant mainstay for many communities, particularly in northern NSW.

6. I am very opposed to mining companies being able to frack where people clearly don't want this done on or nearby their properties.

Our homes and farms are where we live, bring up our children, play, and often make our biggest financial investment in life. Our home is our castle.

Under the current laws, miners cannot be denied access to land, and

landowners have no say on whether or not this can be done in neighbouring land. Normal planning codes do not apply. This seems just wrong to give mining companies carte blanche to carry out this process wherever they want. It goes without saying that as well as risking water, land, agricultural production, environment, the community and public health, gasfields will drastically reduce land values in an area, as we are already seeing. This is not right that private mining companies can profit at the expense (in every respect) of private citizens who are given no choice to have CSG extraction in their district, and particularly when they are opposed to this industry operating in their vicinity.

7. I hold grave concerns that precautionary principle has been completely ignored with respect to CSG.

I am opposed to CSG extraction in or near urban, rural, agricultural and environmentally sensitive areas. I am very concerned that government has halted exploration only in response to community concern. Community concern has been raised due to the very rapid increase in the number of sites under development in eastern Australia, and the wholly inappropriate location of many such sites. This concern is now heightened as some of the detrimental consequences of fracking for CSG are becoming apparent. Surely we should be learning some valuable lessons with the experiences in other countries where the industry has been "self regulating"? Our elected

representatives are meant to safeguard the people of Australia, the communities we share and the places we live and produce sustenance in the way of food and collection of water. The government should be able to unconditionally guarantee the safety and health of all living things, and our land and water systems, BEFORE permission is granted to establish gasfields.

I strongly urge the NSW and Federal Governments

1. To prohibit exploration and extraction of **CSG** in water catchment areas which are used for drinking water
2. To prohibit **CSG** extraction in the near vicinity of any residential areas, whether rural or urban
3. To prohibit **CSG** extraction in agricultural areas, areas of high tourist or environmental value
4. To conduct proper scientific studies of the processes involved in **CSG** mining and fracking, studies that address both the long and short term consequences
5. That precautionary principle is observed and that all exploration and current operations that impact on rural and residential land be suspended until such studies are conducted and the process is found to have only positive outcomes at every level



6. That this industry be subjected to proper government regulation, including being subject to State Water acts
7. That the rights of landholders, communities and agriculturalists be protected over and above the rights of mining companies to disrupt people's lifestyles, homes, farms and livelihoods
8. That every **CSG** exploration or extraction project be subject to rigorous and independent environmental assessment, prior to government approval of such projects, and that any approved project be subject to strict and independent monitoring

Thank you for considering my submission. I would like only to add that there are many other reasons why I am gravely concerned about the impacts of this industry, most of which will no doubt be covered in other more technically detailed submissions

Angela Jansz