Submission No 566

INQUIRY INTO COAL SEAM GAS

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CSG INQUIRY SUBMISSION

ISSUES OF CONCERN TO NORTHERN RIVERS RESIDENTS:

- Water Impacts: effects on springwater availability
  effects on water quality and safety
- Food Security Impacts
- Health Impacts
- Social Impacts
- Environmental Amenity Impacts
- Impact on Greenhouse Gas Emissions
- Alternatives to meeting the energy needs of NSW
- Summary

WATER IMPACTS

The volcanic origin of the Northern Rivers landscape has led to the formation of networks of underground aquifers which supply the water for spring-fed dams which service farms and residential hamlets throughout the region. It is a local axiom that any new bore could adversely impact existing water supplies on both sides of the hill on which that bore has been sunk, and many farmers and rural residents are seriously concerned that the hydraulic fracturing process would cause their water supply to fail.

The second issue of concern is that the use of chemicals in the hydraulic fracturing process poses a serious risk of long lasting contamination of underground aquifers, as shown in the 4 Corners documentary on coal seam gas mining.

IMPACTS ON FOOD SECURITY

Thanks to the volcanic origin of our soils and reliable rainfall, the Northern Rivers region has extremely productive agricultural land. Unfortunately this is subject to housing and development pressure to such an extent that local councils have had to declare certain areas (such as the Cudgen and Alstonville plateaux) as protected agricultural land in order to preserve it for future generations of farmers. Other regions covered by petroleum and gas exploration licenses, such as the Liverpool Plains, are also vital to maintaining the food security of our island continent. As rainfall patterns become unpredictable due to climate change, preservation of viable and productive agricultural land will become ever more urgent in order to feed our nation, particularly as surrounding nations become increasingly vulnerable to sea level rise from climate change and natural disasters such as cyclones become more frequent. This will lead to "climate refugees" seeking to relocate and putting even more pressure on our local food supply.

On our 150 acre farm there are 2 spring fed dams and 2 creeks arise which join with others to flow into the coastal estuary at Hastings Point, a popular holiday spot. We use the pristine water from these watercourses to irrigate crops for 3 local farmers markets, providing income for 3 families currently and in the past up to 11 families. We have a customer base who rely on the purity of our food and are deeply concerned that we may no longer be able to farm successfully if anything should disrupt the flow of our underground streams, or (even worse) pollute the water supply or cause a build up of toxic chemicals on our land.

HEALTH IMPACTS

I am a member of Doctors for the Environment Australia (DEA) and completely support their submission into the CSG Inquiry. Therefore I will not go into detail, other than to add that as a farmer's wife I am also particularly concerned about the mental health impacts of coal seam gas extraction on our vulnerable farmers. It is a well known fact that our

mental health depends on having a sense of control over one's destiny: this is one of the lessons of drought in this country, for when weather removed the ability to successfully sow, tend and harvest crops farmers started to suffer depression and commit suicide . Having overseas companies trespassing (in the sense of entering without permission) on one's land completely destroys a farmer's sense of ownership of their land, rendering them once more vulnerable to depression, with attendant flow-on effects to their families and communities.

SOCIAL IMPACTS

Following on from the mental health impacts on individuals and their families, the NSW government also needs to seriously consider the long term adverse effects on communities of the social division that has already arisen due to controversy regarding the safety and purported benefits of coal seam gas exploration and extraction.

Another serious social effect will be that of short term employment: as farming is such a marginal (though vital) occupation for rural Australians, many farmers may choose to utilise their skills in construction of wells and pipelines. Unfortunately this work will only last for a short while in the life of any given project, after which they will once again have to try their hand at food production. Given the ageing demographic in rural Australia the introduction of industries such as CSG into rural communities is likely to lead to many farmers simply giving up their intergenerational livelihood. While no-one expects them to keep working non-viable land, I am concerned about the ensuing fragmentation of the structure of rural commerce as well as the aforementioned risk to this nation's food security.

IMPACTS ON ENVIRONMENTAL AMENITY

The Northern Rivers is renowned for its stunning scenery and species biodiversity. This attracts tourists from around the world and there is a burgeoning eco-tourism industry. Local residents have a deep connection with the landscape which they share with the Indigenous custodians. The presence of World Heritage areas and National Parks further highlights the

importance of the natural environment in our region. A recent proposal to run a gas pipeline through the Border Ranges National Park is an affront to all who have laboured for decades to protect this unique area for future generations.

Furthermore, the Metgasco proposal to develop an offshore processing and export facility off the coast at Ballina makes a mockery of marine sanctuary zones in this part of the coast. Why is it that individuals are expected to behave as responsible planetary citizens and respect fish sanctuaries when international companies can go ahead and plan to build mammoth facilities right on whale migration tracks? We all know that the answer lies in the short term financial gains (aka gas royalties) to governments: this is irresponsible governance and is simply NOT GOOD ENOUGH!

IMPACTS ON GREENHOUSE GAS EMISSIONS

Gas is heralded as a less polluting fossil fuel than coal. This depends to a large degree on how emissions are measured and the way in which the gas is extracted. The fact that there is a high degree of uncertainty about the level of "fugitive emissions" from coal seam gas exploration and extraction undermines any purported greenhouse benefit. Until these as yet unquantified emissions have been adequately and precisely quantified no-one can truthfully make the claim that CSG will reduce our nett emissions, and it is salient to consider that the greenhouse forcing effect of methane is some 22 times that of carbon dioxide. To objectively analyse emissions from the CSG industry, the NSW Government must also take into account emissions caused due to transportation and construction in the production of coal seam gas, which of course includes the added effect of loss of ground cover and forest on our national greenhouse budget.

My final point regarding greenhouse gas emissions from the CSG industry is that the NSW government must take into consideration the fact that most of the CSG production in this State is to be for export: this renders a nonsense of any argument that gas is a less polluting fuel than coal, as the burning of fuel in transporting this gas overseas is a factor that adds to its nett greenhouse effect.

ENERGY ALTERNATIVES

I have previously made a submission to the NSW feed-in tariff taskforce regarding the viability and desirability of the development of Australia's renewable energy industry and refer this Inquiry to that paper for a fuller discussion of renewable energy and the role it is able to play in baseload power supply. Since that time solar thermal technology has matured to the point that it can now provide 24 hour electricity from the sun. There are notable examples of this in Spain and California, for instance. There is simply no need to use a stop gap fuel such as gas as we transition from coal: our country is particularly well situated to lead the world on solar energy production right here and right now. I would also like to point out that the existing, approved and proposed gas generation facilities in NSW are completely dwarfed in scale by the existing, approved or proposed wind farms in this State, and as yet there has been little development of our significant geothermal and tidal resources.

SUMMARY

Coal seam gas poses significant threats to our water supply, food security, the livelihood of farmers and other rural residents, social cohesion in struggling rural communities and our nation's natural heritage and profitable tourism industry - particularly eco-tourism. We stand to damage our image as a clean green nation if we visually pollute our landscape, and risk interfering with internationally iconic features such as the East Coast humpback whale migration if we develop offshore production and loading facilities. All this for an as yet unquantified (hence spurious) reduction in our greenhouse gas emissions when WE ALREADY HAVE VIABLE ENERGY ALTERNATIVES. The coal seam gas industry poses a real threat to our way of life and must not be encouraged. I have already locked our farm gates and, like many others around the nation, will exercise my right to refuse entry. Should the government legislate to allow gas companies entry to properties against the will of the land owner then you can expect a major

fight on your hands and loss of the support of rural voters. I fully expect this fight to be taken up at the level of the international justice system.

DO NOT APPROVE THE DEVELOPMENT OF THIS INDUSTRY. GIVE LANDOWNERS THE RIGHT TO SAY NO!

Thankyou, Dr Fiona McCormick