

Submission  
No 302

## INQUIRY INTO COAL SEAM GAS

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From D. Pollard



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*NSW coal seam enquiry*

*The following represent my concerns and the concerns of my colleague Geoff Quinn on this subject. I live on the edge of a national park and have land near Dorrigo in NSW. Both these situations have led me to value highly the country side of Australia and motivated an extensive enquiry into CSG and in particular the use of hydrofrack drilling.,*

**Reference 1**

*Water resources:*

*. The vast quantities of water used in csg makes heavy demands on a dry continent.*

*. The large bodies of water left in surface ponds endanger the quality of the water table and aquifers. In Gloucester where AGI are approved to drill 110 wells, the company expects one Olympic swimming pool per day of wastewater to be extracted for storage on site. The National Water Commissioner holds that such large quantities of water accumulating at many csg sites will on release even if cleansed constitutes by virtue of scale "significant potential risks to water and our water management". ( see reference from fact sheet A included). Such serious concerns are also expressed in the inquiry into the impact of mining csg in the Murray-Darling basin ( sheet B).*

*The use of liners in pits to prevent water escaping is inadequate . Liners vary in quality and cannot be relied upon to protect the water table. Builders plastic has been used in some cases, a material of limited life span, prone to being easily ripped by kangaroos.*

*.Floods and heavy rains cause overflows and run offs from wells and water dams and any surface contaminants flow away from wells. Flood plains need to be exclusion zones. See Goondiwindi Qld (u tube pictures of interest)*

*.Dumping of uncleaned mine water has occurred illegally in a number of places, on farmlands, dams and the Pilliga and in Sydney. On 4th of August 2011 The NSW Environment Minister issued a formal warning to AGI in relation to an uncontrolled gas and water release at a CSG well near Cambelltown. AGI was found to have been in breach of its environmental protection license.(fact sheet A) releasing uncontrolled water and gas. (sheet A)*

*Mining companies are resisting Federal demand to return polluted water to wells. A demand to build tanks has been opposed on similar grounds. If these objections of a rich industry are allowed we can expect more 'accidents' especially in remote areas.*

*.Regular accounts of chemically tainted water have been reported in Queensland and NSW. In America shocking health impacts such as cancer and neurological disorders have been attributed to these tainted waters. The removal of commercial chemicals will not entirely solve the water problem as some of the most toxic chemicals are present in the deep underground regions opened up by hydrolic fractureing and are brought up to the surface with water moving along fractures during mining.*

*Air quality and water*

*.Methane in the water may not preclude drinking but no doubt damages creatures that breath this air. Chincilla farmer on you tube has a water bore that gives off more flammable gas than water. Lack of confidence in miner company claims and subsequent proof of their unreliability has lead farmers in Queensland to acquire their own testing equipment to ensure they are safe from methane leaks.*

*Air pollution is a little studied aspect of csg in Australia though gas dehydration units emit over 10 tons per year of organic compounds and gas compressor engines emit over 50 tons . Air pollution with can represents a serious risk to wildlife, workers and those who live in a near area.(Affirming gasland C)*

Water recycling - a reality or not?

Recently companies and Government bodies have made many enthusiastic claims for recycled well water. Such claims are premature and could lead to dangerous releases. Dr Helen Redmond of Doctors for the Environment Australia in August this year noted that water needed extensive treatment before it could be released back into the environment, but there were no formal requirements in place in NSW to ensure this is happening. (Courier mail sheet D)

2 CSG represents a threat to natural areas

Open ponds of polluted water that also emits gas represent a threat to bird life especially migratory bird life.

Wetland systems are vulnerable to polluted run offs and many are connected.

As earth layers become increasingly fragmented due to repeated explosions at different depth over years of fracking, the likelihood of land masses collapsing increases.

The constant noise, often reported at sites and at distances from sites, damages the enjoyment of natural areas and causes stress in animals. Stress can damage animals health and breeding habits so that populations decline.

Drilling near national parks, inside protected areas and public lands damages is prone to opens up forest, fragment areas of land and pollute air and water. Such sanctuaries were established to conserve and foster the regeneration of creatures, plants and those who visit.

The practice of releasing excessive methane through flares carries great risk of fires.

The great artesian basin makes life in the outback possible for large areas of Australia. It is a natural wonder of the world and cannot be put at risk. The pumping of vast quantities of water from this source for gas mining should not have happened and needs to end. It also sits poorly with past demands by Government to cap water on stations to ensure continuing supply into the future.

`CSG mining represents a serious threat to human health

- . by contamination of water with methane and chemicals used in fracking.
- . Through releases of methane and other gases and chemicals into the air
- .. A sense of betrayal and despair following on rapid licensing in NSW has certainly impacted on the mental and physical health of residents in farming communities.

Other major environmental problems with CSG mining include

.Compaction of the land. Deep and damaging compaction of soil through the use of trucks and tankers around the many wells. It is common knowledge to farmers that trucks will compact soil and compaction is a serious matter. The 'NY state department of Environmental Conservation Draft Supplemental Environmental impact statement ' has made a projection on truck traffic. ( see attached P16 of affirming Gaslands Sheet .C) On an average 1112 trucks trips per well . With a single pad of 8 wells this would amount to 8900 truckloads - those truck will also at some time go back..

Such heavy trucks and tankers drive across the land again over many over will be crushing the soil down to the sub-soil beneath them.

Great care is taken to avoid this type of damage to soil by farmers. This means avoidance of driving on wet days, use of wide tyres, avoidance of repeated drives by tractors on the same paths and much lower weight vehicles than used in mines. Compaction on this mining scale results in destruction of soil texture down to sub-soil depths. Such damage is too costly to repair, if practical at all. The soils so abused are subject to erosion, extreme drying (as they will reject as much as 100% of water) and likely to blow away given the loss of vegetation and living things that once moved and helped restore the soil. It is of concern that so little mention has been made of this. (see attachment Soil compaction Sheet E for comparison with usual practise). Looking at the spider web of wells that some farms become it is hard to imagine that farming or even grazing could ever occur on those properties in the future. In all likelihood they are permanently lost to agriculture. Please discuss this with experts in the field as it is surely a sad consequence of mining.

. The Failure of remediation at Piliiga and Casino needs to be acted on. It serves to remind us of the need to make companies take full responsibility for full restoration of a site and removal of all signs of gas practise at the end.

.Heavy fines and even loss of license needs to be considered for dumping and for allowing leaks of methane. Is a formal warning for uncontrolled gas and water release by CSG at Campbelltown an inadequate response for a clear breach of their environmental protection license? (sheet A page 2)

## **2 Social impact**

While some country people will benefit from employment in mines many others will not. They will see their properties devalued their special life style damaged and the opportunity to sell lost with the issue of mining licenses.

Casual workers from others areas bring high rents, indifference and sometimes crime to a place they are just passing through. Clashes between farmers and miners and mining companies are happening.

Watching your life work come to little, your property damaged and placed beyond sale and in some cases beyond restoration, is a sad climax to a productive life on the land. Social life has been changed by this tragedy and a shared sense of injustice dealt out by legislated mining rights now feeds alienation and disaffection in rural and city areas.

Employment options in mining are limited as drilling requires specific skills. Resentment arises in the community when miners spend up from high wages while farmers returns are lowered,

The constant noise from tankers and trucks alters the towns atmosphere and is not enjoyed by many.

People have reduced confidence in agriculture as a possible career or as a place to live or retire. A future seems lost.

(In my opinion and many others the legislation that allow miners onto property and deprived owners of a right to veto no longer connects with a modern sense of justice and the anger around this issue will continues to grow and divide the community.)

### Major economic impacts

Loss of productive food growing and grazing lands to companies purchasing land for mining purposes is very important with larger population needing and affording more food providing ever expanding markets for these products. Such losses seem unacceptable in view of the small percentage of lands in Australia that can grow food and contribute in this way to meeting our own needs and feeding a hungry world.

Damage to tourism..Few will wish to visit country areas with multiple wells and loud noise from pumps and machinery often 12 to 24 hours a day. Our image as a beautiful land worth visiting is threatened.

a whole group of other related rural industries such as organic food growing, orchards, holiday farms, hot springs, markets are likely to be effected negatively.

Further loss of diversity in an economy that needs more diversity to ensure an economic future after mining reflect a very short term perspective in planning for this countries future.

### Other socio-economic issues with coal seam gas mining include..

Coal seam gas does not contribute enough to this state to cover all the extra demands created. The arrangement of 0% for the first 5 years means NSW misses out on the peak production years.(sheetA)

The right to force access to private lands has created conflict within communities where individuals can grant access without consulting neighbours or community wishes.

Uncertainty adds to the concerns of farmers when they have mining licenses on their farms but no knowledge of when and what exploration or mining will happen or happen..

The payments to state governments that accompany, so called exploration rights, seems to acts as a foot in the door, and constitute a quasi approval process. This process is not transparent and has lead to a rush into a compromised position with leases out and running with little consultation with Australians, and little knowledge and control of the industry in place.

Now there is Confusion about what is legally possible in terms of qualifying or changing these prior rushed arrangements.. In France operating mining companies were told that they could no longer use fracking as a method. Similarly England stopped fracking. Are such legal options open to the Government should coal seam gas and in particular fracking prove unsafe and unwanted. (Hydrofracking bans and moratoria Sheet F)

Questions unanswered include : Must existing licenses operate during a so called moratorium? Under what conditions can a Government default arrangements with mining companies without paying compensation? Why the rush? The public is uninformed on these important issues.

Is the practise of telling farmers they must sign away rights to speak about their situation in order to obtain something needed from the company legal in a democracy.? This practise has come to Australia having proved very effective in silencing Americans for years. (Gaslands)

The public needs to know what more about the legalities involves in these situation.

Government members state and federal are known to hold mining shares in csg .Such vested interests need to be dealt with effectively.

**Food security NSW** has large areas with food growing on-going or potential. The fact that many of these areas are also covered by licenses to mine is of concern given the risk to surface water from csg mining. The areas at risk include the Liverpool and Moree plains, the Hawkesbury areas and Sydney basin and the important horticultural areas of the Southern highlands, Central West and, Mid North Coast and North Coast of NSW. All this needs to be protected to ensure future food resources remain.

### **Term of Reference 3**

The rapidity of CSG industries expansion does not relate to Australian needs but to a big emerging market in Asia. Fortunately CSG is not needed to meet the future energy needs of NSW.(sheet A)

States are struggling to provide inspection, monitoring and investigations services to ensure best practice in the CSG industry. Well by well delivery of such services with repeated visits is what Federal Government says is needed. Such scrutiny will be difficult for states to finance and provide. yet it is essential that this industry is properly monitored. Funds need to be secured from the industry for these services.

In order to avoid a future where we have continue to rely on dirty fossil fuels we need to move now to advance and act on better options like thermals, We need a time frame for this move on. Beyond Zero Emissions has given us such a time frame so that we can move ahead to zero emission energy generation within a decade using solar, thermal, wind and biomass power generation. In this best case we will not need to transition with another fossil fuel and further damage to the land could be avoided.(See sheet A

### **Terms of reference 4**

Legislation currently does not protect public lands from CSG . Even prized areas of great beauty and conservation value are not exempted. This exceptional arrangement for mining is a thing of the past. Today such a transfer of ownership does not do justice to the peoples of NSW.

Exemptions from such acts as the Native Vegetation Act of 2003 and the Water management Act of 2000 make the task of minimizing damage from mining more difficult and should be rectified.

Regulations need strong enforcement provision to ensure there are meaningful incentives for companies to follow the law.Regulation and consequences attached to csg caused methane release need to be tight given the high potency of methane as a greenhouse gas (10 to 20 times Co2). A potency and history of gas escaping that has lead scientist to question the claim that CSG gas is cleaner than coal fired generation. ( See important US research on Methane and the Greenhouse-Gas Footprint sheets G),

### **Terms of reference 5**

.Many problems have emerged in Queensland : Drops in bore water levels, leaking wells, methane release, flood water at mining sites,exploding wells and a number of contaminated wells eg In August the ABC news reported finding BTEX in eight coal seam gas wells. In June BTEX found at gas site in Mackay, A further five bores were found to contain contaminants banned in Queensland last October. Cougar at Kilaroy was shut down temporarily after benzene and toluene were found.

World experience on CSG is easily available and contains information needed. We do not wish to repeat research adequately done elsewhere, especially in the US where many concerns have become public and similar methods are used. NSW does not need to re- experience the problems, suffering and now law suits of Americans who have been harmed by fracking on their lands. (See The World situation on bans and moratoria ( Sheet F)

*Yours Sincerely,*