Submission No 788

# INQUIRY INTO COAL SEAM GAS

Name: Date received: Name suppressed 7/09/2011



### **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

There will be many broader and detailed submissions so we have only focused on the issues that directly impact our locality to highlight the weaknesses in the current N.S.W. State Government's Pro Coal Seam Gas Policy and the processes' that enable, support and promote this dangerous industry.

#### 1) Description of Locality

As land holders who live at Baerami, situated at 11klm from the proposed Eastern Star Gas, Coolah to Newcastle Pipeline in Petrolium Exploration Lease 4 (PEL 4). We will directly suffer many of the negative impacts that accompany the establishment of Coal Seam Gas Mining in the Baerami district. We have attended Coal Seam Gas information presentations by CSG proponents at Sandy Hollow, Baerami and Denman, also spoken to many CSG representatives. We have been told nothing that eases our anxiety over this industry.

The Baerami Creek valley is 25KIm Long averages about 750m wide and is actively farmed on a valley floor area of 2,500 hectares (approx); this area is surrounded by the steep sandstone escarpments of the Wollemi World Heritage Wilderness Area. Other nearby valleys such as Widden and Kerrabi are much the same landscape but on different size scales, Widden, larger and Kerrabi smaller. The escarpments are covered with dense brush and Eucalypts. It currently sustains Thoroughbred Horse breeding, Dairying, Vineyards, Olive Groves, Pecan Orchids, Beef Cattle, Meat Sheep Production, Hay making and cropping along with other new and developing enterprises. (See appendix fig. 1)

#### 2) Impacts - Water

The sandstone nature of the vast 40,000 hectare (approx) catchment which surrounds Baerami Creek valley catches but retains a low percentage of rain water with a high percentage running off to the valley floor. This creates a highly concentrated ground water storage area under the farming lands. The long narrow valley floor acts like a large sponge and will at times become saturated with water. The creeks normally do not run unless there is an extreme rain event that dumps volumes of rain water faster than it can be absorbed. The creeks will only run with water for short periods with the captured water oozing to the surface from the shallow aquifers which criss-cross the valley floor (see appendix fig. 2).

Due to their large ratios of catchment areas to valley floor area, Baerami Creek, Widden Brook, Kerrabi and the general Goulburn River network of feeder valleys carry high volumes of water below the ground surface. When they are not running, which is the norm; the underground water follows many different aquifer paths crisscrossing the valley as it slowly travels down the valleys with the track of the river beds seldom followed. These valleys are high risk areas for machinery and vehicle bogging.

This has created long thin narrow strips of high production farmland that have extraordinary underground water security. The general nature of the soils found on these valley floor farmlands are medium weight well drained loams that absorb water quickly with little run off. As consequence there is very little surface water and the farmer's primary source of agricultural water is from the abundant underground aquifers.

It is clearly understood that the Coal Seam Gas industry operates under a vastly different set of Environmental rules that farmers and the general public.

### **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

They are not bound by the Native Vegetation Act 2003 which prohibits farmers from clearing many areas of native vegetation but the CSG Companies will be permitted to do so.

CSG mining companies are not restrained by Local council zoning restrictions.

CSG mining companies are exempt from important parts of the NSW Water Act 2000, including those designed to control water contamination and land degradation.

Any contaminated water spills, chemical spills or pollution that falls to the ground will be quickly lost down into the soil then into the aquifers and will never be contained or recovered. To have even small volumes of contaminates such as "made water" along with toxic chemicals introduced to these valleys placing at risk the soils and aquifers by Gas drilling companies who admit that spills and leaks are part of the package when you have gas wells and as we have seen this many times in other areas. This would be catastrophic to the farms that depend on this clean water and soil resource for their survival.

The effect of dewatering and depressurising lower aquifers to release gas is inherently dangerous. After being told by a CSG company representative that there is no chance of contamination between aquifers or the loss of water from shallow aquifers to deep ones we concluded this to be illogical for these reasons.

Lower aquifers are not water tight sealed vessels, drawing water from a sealed vessel creates a negative pressure vacuum like trying to suck a drink up a straw from an air or water tight container, as no air or water can flow in to replace that drawn away it resists and will surge back against the pumping effort to draw it out. How did the lower aquifers originally fill if not from those above them, Gravity ensures water flows downwards unless it's placed under pressure . How can you prevent gravity from drawing water from shallower aquifers to deeper ones as it only requires a very small drainage point for the interactive water flow to happen? No one can predict the outcomes but it is logical to conclude that gravity will not be reversed and that the natural water flow process' that filled the lower aquifers in the first place remain in place and the water above them will again flow down resulting in the loss of upper aquifer water. This effect will deprive current farming communities either nearby, at distance or both their most vital essential resource, clean safe water.

To forcibly introduce this Dirty Hydrocarbon Extraction Industry to such a valuable farming resource is one thing but to give it license to pollute and to ignore vital environmental laws that we the majority of the community must obey is not only be a great tragedy but an act of gross environmental and social vandalism. (See appendix fig. 2)

#### 1) Impacts - Air

It is well reported that the wells used for the extraction of Coal Seam Gas release other gases such as Sulphur dioxide (SO2) or highly dangerous H2S - hydrogen sulphide (rotten egg gas). As both of these gases are heavier than air there could be no less suitable place for their release than in the narrow confines of our local valleys (see appendix fig. 3). No doubt their will be serious health effects when the air within our valleys turns toxic and smells of rotten eggs. This little discussed side effect of CSG Mining would drive the local inhabitants form their homes and render these valleys uninhabitable.

### **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

#### 2) Impacts - Fire

The communities here live in close proximity to the bush boundaries of the various National Parks and Wollemi World Heritage Wilderness Area which has inherent fire risks that would be raised to an intolerably extreme level and create unacceptable dangers for those of us volunteers that will be called to fight bush fires adjacent to gas wells that will be only metres from dense bushland. The Local Volunteer Bush Fire Brigades are regularly called to serious Bush Fires in and around the Baerami, Widden and Kerrabi districts with the history of these fires well documented. This Fire issue could not have been taken into consideration when the formation or issuing of Gas exploration leases such as PEL 4. These fires have raged down from the inaccessible heavily wooded hills to the valley floors where they are confronted by Local Volunteer Fire fighters. To throw Gas wells into this volatile environment would be irresponsible and dangerous.

The risks faced by local volunteer Fire Brigades should not include protecting an unwanted, extremely volatile and dangerous Coal Seam Gas wells that will be in near proximity to our homes and farms.

#### 3) Impacts – Noise

The narrow confines of these valley's that have the homes and farm buildings in close proximity to the roads will ensure that the full negative noise impacts and disturbance resulting from the traffic and machinery undertaking the industrial process' involved in the setting up and operation of CSG well fields and infrastructure will be fully shared with the Communities that live there. The Gas industry or any other industry cannot exist and operate without inflicting heavy impacts on the local residents that live there as the valleys are natural amphitheatres that capture any noise and rebound it within these valley confines, this noise echo effect is felt even in the larger Goulburn River valley. We that live in the Baerami, Widden Valley, Kerrabi locality are already heavily impacted by the Coal industry due to the extreme escalation in Coal Train movements and industrial traffic on non industrial country roads which noisily echo down the Goulburn River valley between the escarpments of the Wollemi and Goulburn River National Parks. These trains from the Mudgee Mines generate noise, dust and constantly blocking the road crossings to traffic.

#### 4) Impacts – Roads

Our local main road, specifically the Bylong Valley Way which is also the internationally recognised Bicentennial Trail from North Queensland to Southern Victoria for Horse back travellers is already heavily impacted by the unauthorised use by the Coal Mining Industry to move contractors and heavy vehicles to and from the Central West Coal Mines. It is our understanding that the use of the Bylong Valley Way as an Industrial access road was never outlined or approved in any of the Mudgee area Mine Plans as they designating all their industrial traffic access to be via Mudgee. They make no direct contribution to damage repairs or take any responsibility for any property damage, injury or loss of life resulting in the use of this narrow winding country road as an Industrial access route. We know that the CSG industry will bring another cumulative layer of industrial traffic in our locality with even more danger, noise, public disturbance and annoyance. Our narrow roads are already subject to unacceptable unplanned Coal Industry use placing us and our families that use these roads for our day to day life activities at an extreme road risk, to add the CSG industrial traffic to this equation would make the use of our local roads horrendous.

### **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

#### 5) Impacts - Amenity

It is obvious that the introduction of CSG Mining will have clear and real negative impacts to the local amenity. An area with picture book beauty surrounded by Wilderness is surely the last place you would introduce the heavy footprint of CSG Mining. The loss of these areas as clean healthy places where people can produce clean healthy food, breath clean air and rest the eyes on nature for the benefit of their inner well being to become industrial zones is unthinkable. For people that know, love and appreciate these rare places to remain and live there after it has been industrialised would be a tragedy as they would be trapped owning land once priceless but now unattractive and unsaleable.

#### 6) Impacts – Property Values.

It is clearly and universally recognised that even the announcement of the introduction of the Mining and CSG industries immediately impacts on the value of the farms within or even near the bounds of exploration leases. As a result, even at this early stage we have already started to see the financial impacts from an industry that hasn't even started to roll out. Properties listed for extended periods and still not selling, the asking prices falling dramatically but still not selling. The forced introduction CSG Mining onto this high quality, high water security farming lands of a high risk, dangerous Hydrocarbon resource industry that has a license to pollute will certainly impose a large financial cost in the way of lost land values, and will as reported in many of the Queensland media outlets reduce property values by up to 50%. It will create areas that are CSG black holes where nobody will consider living along side gas fields let alone consider purchasing property there.

Who would want farmland no matter how well watered or fertile that has a gas field on it or even near it as the risks to financial loss are extremely high not to mention the risks to health. To devalue vast amounts of private investment in whole regions so that an industry that will only exist for a few decades can grab its profits, make a mess then leave is unthinkable and can't be considered by even the most cynical policy maker.

#### 7) Impacts – Social and Personal.

The hostile take over of our area by CSG, even at this early stage has already started to cause serious physiological and emotional distress amongst community members even with the full impacts of this industry not yet imposed on us. We are real people with real lives we demand the right to the life we have chosen, worked for and payed for. We must be allowed the freedom to enjoy the lands we own in peace and health and should be protected by our elected Governments from this dangerous industry not abandoned to its mercy by that same Government who appear to actively sponsor and help our tormentors.

How can we stand idly bye while our State Government supports Industries that drive us from our farm land just so a higher paying industry can be installed in our place for a few decades of profit taking that will result in the landscape being left in polluted useless ruins. As with other damaged and dieing communities impacted by intensive Resource Extraction we face the fracturing and loss of ours, this effect's us deeply on a very personal level as it seems Government and the CSG Industry have no concept of the suffering they create in their drive for profits. Our mental health is under attack as we feel betrayed, deceived, abandoned and lost.

### **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

#### Conclusions

It is clear that no due diligence is conducted by the NSW Government on CSG exploration leases prior to their sale to ensure it is safe and appropriate to explore in these many varied landscapes and environments. The current process is to sell exploration leases with as little delay as possible with no social and environmental responsibility taken by the Government in selling them as the primary motive is financial. The Exploration process and the conflicts it creates are allowed to proceed for many years with the local communities under prolonged stress and their lives placed on hold while a resource company decides what it will do with their land causing in some cases long term mental health issues.

Much money is invested by the resource company in the exploration and planning phases, as history shows they are almost certain to be granted an extraction licence and lease as it is generally excepted that the granting of an exploration lease is a declaration by the State that they want a Mine or Gas field there as that is why they issued the exploration lease in the first place.

A financial and time investment made by the Government to undertake comprehensive studies in the preexploration phase must be introduced to understand the actual conditions, risks and impacts the proposed industry will create during the extraction process even before the years of exploration and conflict start. This pre-lease process must allow for public submissions to gather credible local knowledge rather than be a covert desk top exercise from a Government office. It is unthinkable to have vast areas of NSW under exploration leases when so little is known about these many different areas and the communities that live there or the risks to them. It is also an unacceptable risk for CSG production to proceed without fully understanding what will happen as Environmental Studies conducted by outside consultants for the proponent after years of conflict with locals are inherently lacking in information or findings that indicate anything but a positive environmental outcomes from the process of CSG Mining.

The exploration and forced introduction of the Coal Seam Gas industry to the Bearami, Baerami Creek, Widden Valley and Kerrabi districts is clearly not appropriate or safe for our, water, air quality, Fire risks, for the quiet enjoyment of our private lands, for our local amenity, for our property values, for our road safety or for our peace of mind. We are not expert in this submission process so fully expect many more serious impacts would be identified when each community member's personal situation is fully understood.

Considering the huge scale of the CSG Mining industry proposed for NSW it is clear to us that no attempts of equal scale have been made to fully understand the full impacts of this new industry on the rural communities facing its introduction. So we demand common sense prevail and an immediate moratorium be declared on all current Coal Seam Gas exploration until all these impacts are known. We also demand that for the sake of ours and the many other communities facing the forced introduction of CSG Mining into valuable, sensitive environments a proper and careful study be completed and clear equitable policies and governance be created that includes the right of land owners to veto exploration on their land.

# INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5

Regards

.

.

. . .

• •

• • •

. .

· · ·

.

· · ·

. .

.

Page 6 of 11

## **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**



Appendix

Figure 1. Overview of the Baerami, Widden and Kerrabi areas.

# INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5

Appendix



Figure 2. Clear Baerami Creek Water, water table near the surface, valley 750m wide



Figure 3. Baerami Valley profile. Valley 550m wide

## **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

Appendix



Figure 4. Thoroughbred breeding, narrow public roadway, Baerami valley 740m wide.



Figure 5. Baerami Creek Road, narrow, poor access lined with homes.

## **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

Appendix



Figure 6. Dairy heard beneath sandstone escarpments, Baerami valley 790m wide.



Figure 7. Beef cattle, Baerami creek mid valley, valley 760m wide.

Page 10 of 11

## **INQUIRY OF GENERAL PURPOSE STANDING COMMITTEE NO. 5**

Appendix



Figure 8. Integrated Beef cattle, Hay making and Olive groves, Baerami valley 660m wide.



Figure 9. Bylong Valley Way, Sandy Hollow rail crossing, our daily reality. 4.30pm 06/09/2011