



SUBMISSION FOR THE HEALTH REVIEW ON CSG TO CHIEF SCIENTIST

Radha Renee to: csg.review@chiefscientist.nsw.gov.au

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Please respond to Radha Renee

History: This message has been replied to and forwarded .

Please find attached formal submission to the health review on Coal Seam gas by NSW chief scientist and Engineer.

Yours kindly
Ms Sharon Wilkinson
For and on Behalf of



Stop CSG Blue Mountains **letter to chief scientist for csg review 2.doc**



26 April 2013

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NSW Chief Scientist & Engineer
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To the Chief Scientist & Engineer,

RE: Submissison on Review of Coal Seam Gas activities in NSW (focus on human health & environment)

My name is Sharon Wilkinson and I am a member of the Stop Coal Seam Gas (CSG) Blue Mountain's group. And I have been elected to write a submission regarding the aforementioned review for and on behalf of our group.

I would like to express the fact that I am pleased to hear that this review is taking place and commend this action that has been requested in response to the emerging evidence and community discontent to CSG activity and operations in Australia and in particular, in this case, in our state of NSW.

The legitimate threats facing the community and the state of our natural environment in face of the CSG mining industry is very concerning.

Firstly, it has been brought to my and to the attention of our Stop CSG group, that although this is a good first step forward in the right direction to the proper assessment of the health and environmental threats of this industry by the NSW Government; in having reviewed the "terms of reference" set out to be followed during the review, I have noticed some areas which I believe to be important but not covered. I there fore would like the "terms of reference" to be *broadened* to include the following:

- To commission rigorous independent scientific research to properly assess the risks of coal seam gas mining;
- Identify best practice methods for baseline monitoring of health impacts, water resources, air quality, soil quality, and fugitive emissions;
- Identify areas of NSW that should be off limits to coal seam gas, due to unacceptable risks and impacts;
- To review the impacts of coal seam gas on agriculture and other affected industries such as tourism and manufacturing.

I would ask that the broadening of these terms of reference be strongly considered and implemented further framing the review.



I would also like to respond to the existing terms of reference and for these points to be considered as part of it and thereby included in your study:-

1. **Industry compliance, site visits & well inspections (TOR 1 & 5)**

A. **Menangle Park, NSW (near Camden)**

I would like to outline here a specific issue of compliance in terms of actions of the CSG industry, energy and mining corporation AGL limited, at Menangle park, which is in close proximity to my local area and therefore also invite you to inspect this site as part of your review.

AGL hold a significant amount of the Sydney Basin and the Blue Mountains under license to explore Coal Seam Gas. The recent incident at Menangle Park has many alarmed to the point of distress about what seems to be a gross negligence by the company, for the following reasons;

- a) Firstly the CSG well, on approval by the O'Farrell NSW State Government went ahead without any community consultation;
- b) The well head and the wastewater holding pond was placed, irresponsibly I believe, only 40metres from the Nepean River, a river which floods often.
- c) The community upon their outrage of the project were not listened to in terms of their objection of the well being in close proximity of their properties (raising mental health concerns of residents). There has been an immediate experience of noise and air pollution. In my opinion such a project should have been halted immediately given the widespread community objection;
- d) Around February and March 2013 we had consistent heavy and flooding rains, a feature not unusual in the Sydney Basin area, and in and along the floodplains which exist along the Hawkesbury Nepean River Catchment. The gas well and wastewater holding ponds at the new well site at Menangle Park were completely submerged in flood waters and anything in the ponds would have been washed into the Nepean River. Methane was recorded bubbling at the surface of the water all around the site. (please refer to the final link in related information below with video of the occurrence).
- e) This was deemed a minor flood, however major floods regularly occur which would immerse this site in double what was experienced here, so up to 10metres of flood waters.

Related web information directly related to this issue:-

<http://www.smh.com.au/environment/water-issues/agl-starts-work-on-sydney-coal-seam-gas-well-20120822-24mv4.html>

<http://www.environment.nsw.gov.au/epamedia/EPAMedia13030101.htm>

<http://www.smh.com.au/environment/agl-failed-in-its-duty-to-properly-monitor-gas-emissions-20130331-2h1dy.html>



<http://www.smh.com.au/environment/plan-to-drill-150-gas-wells-across-water-catchment-20120906-25h3v.html#ixzz2HwjlgA40>

<http://www.jeremybuckingham.org/flooded-nepean-river-coal-seam-gas-well-must-be-independently-investigated/>

<http://www.dailytelegraph.com.au/newslocal/macarthur/anger-begins-to-bubble-over-after-agl-denies-gas-leak/story-fngr8h70-1226570971334>

In conclusion of this issue, the actions of AGL on all counts emerge as not having respect for community opinion nor their health, acknowledging that Coal Seam Gas exploration both near residential homes and/or so close to a major catchment area leading straight into our drinking water which regularly floods poses potential risk to community and/or water health, (which we can see in the video provided it plainly is). AGL did not take any responsibility post the flood, but rather expressed denial that the incident had any effect on the Nepean River, water or community health at all (refer to last link above). An independent study should take place at this site and be constantly monitored, if not operations dismantled all together and the companies license to explore for CSG, to drill and extract revoked, due to the fact that this was essentially a toxic spill into Sydney's major drinking water catchment, albeit unofficial due to no baseline data and full testing carried out upon the spill. This example distinguishes lack of any credibility for levels of safety by AGL for which an area would expect there to be strict compliance both by Government policy and organizational activities. This concern extends further as the gas company AGL have been given approval for exploration at the Northern Expansion of the Camden gas project, Spring Park and Menangle Park.

AGL now holds a 100% interest in the Camden Gas Project and associated exploration licenses in the Sydney Basin.

The Camden Gas Project produces gas from Petroleum Production Leases (PPLs) 1, 2, 4, 5 and 6 and explores for gas under Petroleum Exploration License 2 (PEL 2).

So we invite you to please visit and assess both this site and thoroughly research this situation.

B. Blue Mountains Greater World Heritage Area

As AGL hold a significant portion of the Blue Mountains under a PEL 2, we are very concerned as to their plans for exploring CSG in the area, especially since they have attested to the fact via the situation at Menangle Park, that they often begin operations without community consultation. We find the company behaviour of AGL completely unacceptable in this instance and are very worried about the plans for CSG using Hydraulic fracturing of in a highly protected area such as ours. We would also there for invite you to investigate any proposals as to potential site plans in the Mountains and the inappropriateness of conducting such an activity in an area deemed so highly protected with world heritage status.



C. **Other areas and regions of concern**

Regions closeby but outside of our jurisdiction that our group is very concerned about in terms of Gas field development, and would invite you to investigate and visit are:-

- The Hunter
- The Shoalhaven**
- **The Illawarra**
- **The Wollondilly**
- **The Hawkesbury**
- **Blacktown/prospect Reservoir**
- **Penrith LGA**
- The Central West (Lithgow, Oberon, Bathurst, Orange & beyond)

All of these areas have proposed gas exploration under Petroleum exploration licenses, many of which are held by AGL. The areas in bold above exist in and around drinking water catchments and along the major tributaries of which feed into the Hawkesbury Nepean River Catchment; essentially Sydney's drinking water supply. It is important to protect and preserve these areas which is why it has been requested here also that exclusion zones be extended to protect, drinking water catchments as well as farmland and *all* residential areas given risks to health.

Many of the areas above border on or come within the boundaries of the Blue Mountains Greater World Heritage area, including Lithgow, Richmond/the Hawkesbury and the Wollondilly. So this too must also be considered when looking at CSG activities and impact on health of flora and fauna and water quality on such a highly protected area and an internationally significant region.

2. **Gaps, risks, baseline and independent research (TOR 2 & 6)**

What the above example outlines is how there are many gaps in managing coal seam gas risks in NSW, including the lack of baseline data and on-going monitoring on health, water, air quality and fugitive emissions. The most fundamental risk management strategy must be the creation of strict no-go zones for farmland, water resources and important bushland.

In addition to the example outlined at Menangle Park, this has been particularly evident also for the Gloucester region, where AGL also hold the exploration license for shale gas extraction there. The situation is that the community feel that the gas company have not done adequate study particularly considering the unique hydrology of the area, to evaluate the safety of the project. I have been informed by the local action group Barrington Gloucester Stroud Preservation Alliance (BGSPA), that they are presenting to the head of AGL on 16th May, an independent scientific report that requests that they conduct a water study on 100% of the area where the proposed 100+ wells will go in. Between the date the approval was granted by the now O'Farrell Government some weeks ago and the date of this meeting, many wells would have already been drilled and operating. This type of inadequate and unsafe activity and what seems to be an overall lack of concern and responsibility or onus by this gas company should have us all very concerned about the outcomes of CSG in NSW.



If the industry is to have more credibility and begin to have legitimate safety being projected as part of their ethos, then it would need to begin to engage independent scientific research to assess the risks from coal seam gas operations and comprehensive baseline monitoring.

3. **Residential exclusion zones (TOR 3)**

Best practice in CSG management should include a minimum 5km exclusion from residential zones, a minimum 2km exclusion from all residential dwellings, mandatory health impact assessments, and the right for communities to say no.

These exclusion zone parameters could also be further increased in distance from residential zones and dwellings, given the evidence that earthquake activity, noise and air pollution are thoroughly evident even when placed at a distance from a residential area, and still causing a considerable impact. Such as the following article extrapolates, where there was a “30-50 kilometre buffer zone for the SkA telescope in the Karoo region of South Africa which is also to be a gasfield, to prevent air pollution and seismic activity interfering with the telescope, proving the impacts are documented, real and significant even for electronic equipment. (please refer further to the below link).

<http://blogs.nature.com/news/2012/09/astonomers-relaxed-about-fracking-near-south-african-telescopes.html>

The threats that need to be closely looked at in terms of assessing the real terms of exclusion zones, related to health and environmental safety are;

- Water health, catchments, aquifers, ground and bore water.
- Leaking methane/fugitive emissions;
- Above ground footprint/ competing land use;
- Related seismic activity such as earthquakes for example;
- Human, plant, and animal Health impacts; &
- Inadequate assessment and regulation within the industry

Thankyou for your time to read our submission. I ask you to please kindly take into consideration the above factors in your review and please let our group know of outcomes in relation to both our specific areas outlined and also of the study in a broader sense.

Yours sincerely

Sharon Wilkinson
BLMC Hons. UWS
For and on behalf of
Stop CSG Blue Mountains