



**Hunter Valley Wine Industry Association - Submission dated 24 April 2013
to The NSW Chief Scientist & Engineer**

Helen Wilson to: csg.review

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Cc: "Graeme Gibson", "Stewart Ewen"

History: This message has been replied to and forwarded .

Please refer to the attached Submission dated 24 April 2013 – thank you.



HVWIA Letter dated 24 April 2013 to The Chief Scientist.pdf

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TO: THE NSW CHIEF SCIENTIST & ENGINEER

Email: csg.review@chiefscientist.nsw.gov.au

SUBMISSION BY HUNTER VALLEY WINE INDUSTRY ASSOCIATION INC., TO THE NSW CHIEF SCIENTIST & ENGINEER REVIEW OF COAL SEAM GAS ACTIVITIES.

The Hunter Valley Wine Industry Association Inc., is the industry body for the Hunter winegrowing industry.

The winegrowing industry in the Hunter encompasses not only the vineyards, the cellar doors and the wineries, but also the huge wine tourism market.

It is noted that the Terms of Reference set out 6 areas in which the Chief Scientist is to undertake studies, identify and assess, explain, inspect and produce information papers.

Addressing the existing terms of reference using the numbered terms:

1. In undertaking the study of industry compliance, it is our submission that not only should the Chief Scientist look at current practices, but at past compliance failures.

There is an abundance of evidence overseas of the failure of concrete and steel in wells and of CSG miners failing to comply with Licence conditions. All these failures of industry compliance should be examined.

In the Hunter Valley our experience is that the holder of PEL 267 has failed to comply with its Licence conditions on a number of occasions. All breaches in NSW, past or present, should be carefully examined to ensure that proper protocols and safeguards are put in place for the future.

It is not necessary to look too far to see that CSG miners are not sticklers for compliance with their Licence conditions.

An example of failure to comply with PEL conditions here in the Hunter is AGL Energy during August, 2010 electing to dump an alleged 300,000 litres, or more, of salty contaminated water onto pasture, killing the pasture. This was after having previously trucked away for treatment some 280,000 litres of the same water in the same activity. AGL admitted to 110,000 litres being dumped and was ordered to remediate the site. Whether AGL elected to dump the water to save time or to save the cost of trucking it away for treatment, only AGL knows. Either way it was an unacceptable breach. The fact that AGL was not punished for dumping the water was reviewed by the NSW Ombudsman who opined *"it appears to me that AGL breached their licence conditions by discharging the contaminated water"* (NSW Ombudsman rev: C/2010/7463).



A second example in the Hunter is the report on Audit of Coal and Petroleum Exploration Licences in NSW – phase 2 which found that AGL had failed “to comply with the Licence conditions in both of its Petroleum Exploration Licences affecting the Hunter Valley Wine Country”. The various breaches are set out in that report.

A further example of lack of compliance is shown in the attached photographs taken of an AGL site in the Hunter Valley. Stacks of rubbish, open ponds of contaminated water, piping held together with duct tape leaking contaminated water onto the ground are depicted. Whilst no action was taken against AGL for this behaviour, it is clearly not action which should be taken by a responsible explorer for CSG.



So far as AGL is concerned, other examples of failing in its compliance with Licence conditions occurred at its Camden CSG production site.

In July, 2011 AGL was issued with a “*formal warning*” following a blowout of a methane well near Campbelltown caused by incorrect operation of the well.

In August, 2012 AGL admitted failing, for a continuous period of 3 years, to comply with its Environment Protection Licence at its Camden gas works, subsequently resulting in that company being fined \$1,500.00 for exceeding its emissions once the air quality sensors were put in place.

As long ago as 2004, Sydney Gas – now AGL – was given a “*clean up Notice*” (no. 1035293 of 5th April, 2004) following the escape of fracking water. This event was described as a “*pollution incident*”, the fracking water being a “*polycyclic aromatic hydrocarbon species....high in pH and conductivity (salt)*”. Whilst AGL apparently complied with the Clean Up Notice, there was no punishment for this breach.

In late 2000, according to a report by CM Atkinson, an independent scientist looking at the proposed exploration by Sydney Gas in the Yarramalong Valley, reported on contaminated water in the Pilliga. He reported that contaminated water seeped through a sandy dam wall, then, when the dam wall collapsed, flooded the surrounding area of the Pilliga with a sodic/saline liquid through the subsoil and shallow aquifers killing vegetation and trees as shown in the following diagram. There was no punishment for this significant environmental pollution.





In the course of undertaking the comprehensive study of industry compliance, consideration must be given to provide for punishment for breaches of Licence conditions, particularly those which affect the environment. Punishment must be significant enough to act as a deterrent. Substantial fines should be available, and perhaps Company Directors should be made responsible for the actions of their company where environmental breaches are concerned.

Any other methods of enforcing compliance should also be explored.

2. The many risks arising from CSG exploration and extraction are again well recorded, worldwide. The identification and assessment here should look at the international risks, many of which have manifested themselves into major environmental problems, but should also look at local NSW issues based on the international reporting.

The most fundamental risk management strategy here must be firstly baseline data, ie taken well before any exploration is to commence. The baseline data should address the environment, the soil, the ground water, the aquifers, water quality, air quality, particularly the existence or not of methane and the amount and analysis of particulate matter (dust, coal dust, overburden and interburden dust, burnt diesel particulates, etc). The baseline data should also look at the environment as a whole including fauna and flora.

Secondly, under this Term of Reference, it is necessary to identify and assess “no-go” zones within the State recognising the existence of farming land, existing industries (including the burgeoning Tourism industry), water resources of all kinds, and important natural and biophysical lands.

3. Under this term there must be a full study of the impacts on residential properties and urban areas. These areas should be extended to include rural residential areas, hobby farm areas, tourism areas, as well as all those areas set out in the Draft 2013 SEPP addressing exclusion areas.



In examining this term it is essential that cumulative impacts, or proposed cumulative impacts, should be examined before any exploration is able to be commenced.

This is of particular relevance in the Hunter Valley where there are already considerable impacts from open cut coal mining, from underground long wall coal mining, from power generation plants, from the Singleton Army Base and the RAAF, from industry and from agriculture.

Again, in the Hunter Valley, the threat to upper fresh water aquifers by CSG exploration or extraction has been described by Dr. Gavin Mudd from Monash University as “significant” because of the existence of adjacent underground long wall coal mining.

The best practice in CSG management should look at the required extent of a buffer from the exclusion zones, whether it should be 2 kms or 5 kms as a rule, or whether the extent of the buffer should be looked at on a case by case basis.

And finally, the review of the impacts of CSG mining should not be restricted but should examine the impacts on not only human health and the environment, but in addition to agriculture such industries as tourism and manufacturing.

4. This must be examined scientifically.
5. The Chief Scientist is invited to visit the Hunter Valley and examine not only the ambience of the area, but also to look at what AGL is currently doing. AGL, although having been in the Hunter in one guise or another since about 2004, is still early in its exploration and is currently advising the community that it is about to drill some further core holes, notwithstanding that the area in which they are currently drilling is in the Critical Industry Cluster – viticulture – an exclusion zone in the draft SEPP.

In examining water extraction, hydraulic fracturing and aquifer protection techniques under this term, there must be rigorous examination of not only the extraction but, more importantly, the disposal of the coal seam water. Dependent upon the geology and hydrology, around a million litres of coal seam water, contaminated with salt and other chemicals, could be extracted from any one well.

This is an area which is of paramount importance, but which seems to be an area which is being neglected by the CSG industry participants and which has, to date, not been properly dealt with by Government.

A formal, statewide, protocol must be put in place providing:

- i. for the initial examination of the chemical make-up of the water from target coal seams;
- ii. for the scientific estimation of the amount of coal seam water which might be required to be extracted from any one coal seam or through any one well;
- iii. for the environmentally safe disposal of the coal seam water or of the brine or salt resulting therefrom.

Without a formal protocol along these lines, no exploration should be able to even commence.



6. It is all very well to produce a series of information papers, but they must be scientifically researched and based, rather than just more information sheets to inform of policy development and to assist public understanding. These sheets should include all scientific information gleaned from the examinations under the earlier Terms of Reference.

It appears to our Association that the Terms of Reference are inadequate and that, in order that there is a full and complete assessment of the impacts of CSG activities on human health and the environment, there should be added to the Terms of Reference:

1. Producing statewide maps of all industry clusters, sensitive water catchments and storage areas, and "food bowls" which should be excluded from coal seam gas mining.
2. Commissioning rigorous independent scientific research to properly assess all the risks of coal seam gas mining, garnering information from both interstate and internationally.
3. The independent identification of areas of NSW that should be excluded from CSG exploration or extraction due to unacceptable risks and impacts.
4. That the Review take into account:
 - i. the recommendation of the NSW Legislative Council Inquiry into the impacts of CSG (May 2012);
 - ii. the implications (and limitations) of the draft *National Harmonised Regulatory Framework for CSG* (December 2012);
 - iii. the scientific review of CSG recently conducted by Dr. John Williams, which recommended a "catchment-based approach" to strategic planning and mining assessment;
 - iv. the cumulative impact assessment tools developed by the Namoi Catchment Management Authority;
 - v. that the NSW Government commit to tabling the Chief Scientist's CSG Review in Parliament within a month of receiving it, and the Government's own draft regulatory response by December, 2013, or within 6 months of the Chief Scientist's report.
 - vi. the evidence given to the Senate Inquiry.



STEWART EWEN OAM

