

HUNTER BULGA COAL BED METHANE GAS EXPLORATION – AGL ENERGY LIMITED.

SUBMISSION

15th March, 2010



Valley – Broke and Bulga.

EXECUTIVE SUMMARY

The Hon. Minister Macdonald.

Re: AGL Energy – Hunter-Bulga Exploration area.

1. Significant further information has come to light since we last met. The situation in the Broke/Bulga valley has dramatically escalated in that time, and it is the community's submission that the Minister must now intervene.
2. Community representatives on the Community Consultative Committee (CCC) have tried hard to make this work, however both Sydney Gas and now AGL have been limited in their co-operation.
3. At the insistence of the community representatives of the CCC, a water study has been overseen by Professor Gary Willgoose of Newcastle University. This study shows that there is probably no connectivity between the upper freshwater aquifers and the coal seam at the precise place near the Broke village where the study was done.

However, both Professor Willgoose and Dr. Gavin Mudd of Monash University have identified, after preliminary examination, the potential for a major problem with groundwater. This significant problem arises by virtue of the adjacent long wall coal mining, both current and planned. If current exploration results in extraction of coal seam methane, the result could be that the upper fresh water aquifers could track to the long walls and into the coal seam voids.

4. Totally at the initiative of the community representatives, and to the cost of the community, a detailed mapping of the exploration area has been carried out. This mapping displays the various works on the surface of land within the exploration area, as set out in S. 72 of the Petroleum (Onshore) Act, together with the required buffers surrounding those various works. The mapping also shows the exempted areas required by S. 70, and the restricted areas as set out in S. 71.

We refer you to these attached maps.

The resultant mapping reveals that there is very little surface area available to AGL for exploration between the villages of Broke and Bulga. The remainder of the exploration area is also restricted, but to a lesser degree. AGL enunciated the view, at the last CCC, that even though there were buffers in the Act, AGL would be relying on the Minister's discretion to drill in those areas despite the buffers.

4. The Petroleum (Onshore) Act, 1991, (the Act) was not enacted with the exploration and extraction of coal seam methane gas envisaged. The Act was to be updated during 2007 and 2008 but this did not happen.

The Act does not address problems which arise due to conflicting land uses, particularly affecting heavily settled rural areas with many residences, a large population and intensive agriculture. This is the Hunter Bulga Exploration area, surrounded by World Heritage Listed National Park, State Forest, Federal Government Military land, and Mining Leases.

6. PEL 4 expired on 10th November, 2009. Renewal has apparently been approved, however there was no consultation in the CCC as to the size or location of the area to be abandoned pursuant to S. 30 of the Act. When asked why the community was not permitted any input into this AGL, by its CCC representative Siobhan Barry said "We don't have to listen to anybody".

7. The Broke Bulga area has been the target of coal miners and Australian Defence Forces, and now hot fractured rock geothermal proposals. Such is the problem with dust, coal dust and power station emissions, that a medical study is now taking place in relation to the prevalence of asthma in the community, particularly in relation to the children in the community.

SUBMISSION TEXT

13th March, 2010.

The Hon. Ian MacDonald, MLC,
Minister for Mineral resources,
Level 33 Governor Macquarie Tower,
1 Farrer Place,
SYDNEY NSW 2001.

Dear Minister,

RE: AGL Energy Ltd. - Petroleum Exploration Licences 4 and 267 (Figure 1).

We thank you for your time in meeting with us on prior occasions, and again thank you for agreeing to meet with us again regarding our concerns for the Hunter Bulga Coal Seam Methane Gas exploration area.

We wish to report to you on the current status, which will allow the Minister to consider what is required regarding the issue of Coal Seam Methane Gas exploration in the Broke and Bulga areas.

The Bulga Gas Exploration Project Community Consultative Committee, set up by the Minister, has had limited success, however progress has been made in two areas: A preliminary water study has been undertaken; detailed mapping of the buffers required by the Petroleum (Onshore) Act, showing the land available for exploration has been undertaken. Full details are set out below.

REQUESTS OF MINISTER.

1. Require an immediate and full Environmental Assessment (pursuant to the Environmental Planning and Assessment Act, 1979) of the total Hunter Bulga Exploration area, approximating the Broke Fordwich Region (*Figure 3*), in view of the long wall mining risk to upper fresh water aquifers, covering not only exploration for Coal Seam Methane Gas, but eventual extraction thereof, including (but not limited to) a full water study of the whole of the Hunter Bulga Gas Exploration area, addressing particularly ground water, surface water and the fresh upper aquifers. The Environmental Assessment should also address noise, truck movements, chemicals used for fracking seams, dust, effect on water quality and quantity, aboriginal and European heritage, and importantly the cumulative effect of each of the above impacts on the various other intrusive industries including coal mining (open cut and long wall), Defence Forces activity (including Army and Air Force), power station emissions and the like, and anticipated industries including the Hot Fractured Rock (Engineered Geothermal Systems "EGS") exploration and possible power station.
2. Require AGL to refrain from drilling through or under upper fresh water aquifers until it is clear that there is no risk to surface water or groundwater.
3. Either excise the Hunter Bulga Exploration area (*Figure 3*) from PEL 4 and PEL 267, or encourage AGL Energy to abandon same, it being less than 1% of

their total exploration areas, with AGL Energy still having available to them large tracts of exploration area away from semi residential areas.

4. That PEL 4, apparently having been renewed on 17th February, 2010 including a condition that 17 blocks of the Area be abandoned within 2 years, have abandoned from it that part of PEL 4 which is within the Hunter Bulga Exploration area.

5. That urgent legislation be introduced to regulate the Coal Seam Gas industry, particularly in relation to the protection of closely settled communities and agricultural communities.

THE BASIS FOR THESE REQUESTS FOLLOWS:

ENVIRONMENTAL ASSESSMENT.

The current issues facing the Broke and Bulga areas in relation to the emerging tension between resources development and the rural economy, including the problems of threats to fresh water aquifers and the disposal of millions of tonnes of salt, gives the Minister the opportunity, in requiring a full Environmental Assessment including a cumulative impact study, of being a national leader in attempting to solve the current problems facing the disparate land use of agriculture and coal seam methane gas extraction, not only the Hunter Valley, but also the Surat Basin in Queensland and other current exploration areas.

The current approach by the Department of only requiring a simple Review of Environmental Factors when looking at CSM exploration is clearly insufficient.

A senior Queensland Agforce policy officer is quoted in the Sydney Morning Herald on 8th February, 2010, as saying the CSM industry is "death by a thousand cuts" to the agriculture industry without "overall knowledge about what the cumulative impact is".

Coal Seam Methane Gas extraction should be encouraged in broadacres, of which there is ample within the PELs owned by AGL Energy, and discouraged in intensive agricultural communities, and densely settled area.

There are many reasons why the members of the Broke and Bulga communities urge the Minister to require a full and complete Environmental Assessment covering the current exploration activities of AGL Energy, and also looking ahead to any consequent extraction of Coal Seam Methane Gas in the Hunter Bulga Exploration area ("the Area"), particularly assessing the cumulative impact of those activities on current and proposed activities in and adjacent to the Area.

Some of these bases for an Environmental Assessment have arisen since May, 2009 when we last met with the Minister.

Currently the Area, although fringed by coal mining activity and other activities, remains tranquil and bucolic.

The effects of the various activities immediately adjacent to the Area are, however, taking their toll, and any additional activities must assess the cumulative impact on the environment of the Area.

All landholders are entitled to the quiet enjoyment of their land, however this becomes impossible when at one development at a time is assessed in isolation.

The impacts on the Area which currently exist, or which are about to commence, include:

1. Coal mining.

The noise, dust and lighting which escapes from the coal mining industry affects all residents of the area, and broader areas of the Hunter Valley, as does the appearance of the coal mining sites.

Such is the concern in relation to the escape of coal **dust**, overburden dust and interburden dust, that a local Singleton Doctor (Dr. Tuan Au) has commenced an extensive survey into the incidence of asthma, both childhood and adult, in the communities of Singleton and surrounds. This study is now escalating and has, apparently, been taken up by the University of Newcastle.

Noise is a serious issue and is the subject of ongoing commentary between the community and the coal mining companies. One instance of cumulative noise impact, now being belatedly addressed, is the combining of the Beltana underground and open cut noise issues. It should not be the situation that such cumulative impacts are assessed a considerable period of time after the initial approval, and then only when the combined noise becomes excessive.

Marion Burgess of the University of NSW, Acoustics & Vibration Unit, reminds us that cumulative noise impact assessments are essential for any new noisemaker to ensure that the "amenity criteria" of 40 decibels is not exceeded in any rural circumstances. She reminds us, further, "that there is very little room for another noisemaker", with Beltana Mine and Bulga Coal Mine amalgamating to ensure that the amenity criteria is kept below 40.

Any additional noise to be made by AGL Energy should be assessed against the current noise level and reported in any Review of Environmental Factors or Environmental Assessment.

The night sky is also lit with the 24 hour operations of the coal mining industry, sometimes when there is low cloud of a night it is exceptionally bright (see *attached photograph 1*).

2. Australian Defence Forces.

Considerable noise emanates from in and around the Singleton Army Base, the area of which Base extends to the outskirts of the Area. The intrusive noise being the resonance of small arms fire, machine gun fire, heavy weapons fire, exploding bombs, and extremely low flying jet fighters not only creating their own extraordinary noise but also dropping large bombs adjacent to Broke.

3. Coal Seam Methane Gas exploration.

This exploration of itself results in the emanation of noise, dust and visual blight in the area. Should the exploration proceed to the CSM extraction stage, there will be vastly increased noise with the probability of hundreds of gas wells being constructed threatening the ground water and the lifestyle and livelihoods of the landholders in the Area.

There would also have to be a gas treatment plant constructed. We were informed by Sydney Gas Ltd., that such a treatment plant would have to be within about 15 kilometres of the gas field. There is certainly great concern in the community that such a gas treatment plant would be constructed on the land now owned by AGL Energy adjacent to, and also near to, the village of Broke. Requests to

AGL Energy to consent to an irrevocable covenant being placed on that land prohibiting the construction of any gas treatment plant, or any other industrial plant, has been refused by AGL Energy.

It is also probable, having in mind the sheer volume of saline and toxic water which would in all probability be produced as a result of extraction activity, that a water treatment plant would have to be constructed within the Area, again probably on the land owned by AGL adjacent to the villages of Broke or Bulga.

Heavy truck movements, in the event that there is no treatment plant constructed in the Area, transporting the toxic water to a remote treatment facility, would be in their tens of thousands, based on the use of one megalitre of water per well.

Groundwater is at risk. Sydney Gas, firstly, and now AGL Energy, at the behest of the community representatives on the Community Consultative Committee, is currently conducting tests at one site adjacent to the village of Broke, as to the connectivity of the upper fresh water aquifers to the aquifer existing in the coal seam below. This study, although very restricted in its test area, is at least a start and an acknowledgment that the upper fresh water aquifers are of the utmost importance.

This study being conducted on behalf of AGL has gone further than others have gone in assessing the groundwater, and appears to show that at this particular site there is probably no connectivity between the coal seam and the upper fresh water aquifer.

The study has, however, highlighted the geological complexity of the Area resulting in exhaustive further research being required into geological activities, both natural geology and the geology altered by longwall coal mining, underground coal mining and open cut coal mining.

The water study is being overseen by Professor Gary Willgoose of Newcastle University, again at the behest of the community representatives, and is also being examined by Dr. Gavin Mudd of Monash University, an expert commissioned by, and at the cost of, the community. The release of a final report from Parsons Brinckerhoff, commissioned by AGL, is still awaiting examination and report from Professor Willgoose and Dr. Mudd. Whilst it does appear that at that particular site there may be no connectivity between the particular coal seam and the upper fresh water aquifers, the findings fall short of "proof" that there is no connectivity, according to Professor Willgoose.

The more serious problem is the loss of groundwater caused by the possible interconnectivity of the upper freshwater aquifers with the long wall coal mining which is adjacent to the proposed gas extraction area. See Plan A setting out the current and proposed long wall mining plan.

Long wall mining is very close to the proposed Coal Seam Methane Gas development. Dr. Mudd says that *"it is unclear if large scale CSG extraction has ever been attempted so close to active (or even historic) longwall coal mining operations."* He goes on to say that *"Subsidence from longwall mining can lead to impacts on groundwater levels through opening up new cracks, fractures and pathways which previously did not exist. This could lead to significant risks when combined with the substantive groundwater extractions and changes due to any future CSG project."*

Dr. Mudd opines that the *"potential for overlap between groundwater impacts from subsidence due to longwall coal mining and possible CSG activities"* is a *"serious risk"* that it *"needs detailed investigation and assessment. It also highlights the need for a cumulative impact assessment of all present and possible future activities in the Broke region to ensure that the environment, groundwater and community remain protected, as well as all industry being approved to operate within appropriate conditions and total impact limits."*

Dr. Mudd goes on to say *“In summary, there remains significant uncertainty about the extent of possible future impacts on groundwater resources and the environment around Broke”*.

There is obviously significant lack of knowledge in relation to the effect on groundwater in the Area which must be addressed through a thorough Environmental Assessment.

It also appears clear that it cannot be proven that any method of coal seam methane gas extraction will not contaminate or diminish the upper fresh water aquifers. See appendix a.

Lastly, not only would it be in the interests of the Area and all those who live and work in it, it appears that it would be in the interests of AGL Energy to undertake the full Environmental Assessment to ensure that it will have no future problems with the extraction phase. It may save AGL Energy vast amounts of money otherwise unnecessarily spent on exploration.

4. Hot Fractured Rock (Engineered Geothermal Systems “EGS”) exploration and power station.

Geodynamics Ltd., has recently received Government (State and Federal) grants to explore some 4 kilometres below the land surface in the Bulga area for hot rocks with a view to erecting and running massive power stations at Bulga. The power stations would, according to Geodynamics, cover an area of about 8 football fields.

Although this is also in its early stages, prima facie it will have a major effect on the quality of life in the Broke and Bulga areas, particularly in relation to noise.

This is very new technology with Geodynamics acknowledging to the community in a presentation on 2nd February 2010: that they are learning as they go in the Cooper Basin; that they are running years behind in the Cooper Basin; that they have had an explosion at their well site in the Cooper Basin by virtue of using the wrong steel casing for a well; that there have been seismic events as a result of its deep fracturing of hot rocks in the Cooper Basin, one event reported to have registered 6 on the Richter scale.

Having in mind all of the above, it is an absolute necessity that there be a full Environmental Assessment of the Area before there is any further interference in the area, and the Minister is urged to intervene requiring that this be done.

EXCISION OF THE AREA FROM PEL 267 and PEL 4.

4. Community representatives on the Community Consultative Committee (CCC) have tried hard to make the CCC work, however both Sydney Gas and AGL Energy have been unco-operative, for example, to the extent of sitting at the meeting with folded arms saying “no” when asked to be transparent in relation to Water Licences. AGL Energy brings nothing to the CCC meetings, and only respond to questions rather than being pro-active. Even then most questions are avoided, or taken on notice.
5. Since October, 2009, the community representatives on the CCC have been asking what, if any, area was to be abandoned pursuant to S. 30(2) of the Act upon renewal of PEL 4. It was not until the CCC meeting on 10th March, 2010 that the AGL representative on the CCC,, Siobhan Barry, announced that PEL 4 had been renewed on 17th February, 2010, and that as a result of the representations of AGL an area of 17 blocks of the PEL is to be abandoned within 2 years of 17th February, 2010. When asked at the CCC why the AGL representations hadn’t been divulged to the CCC earlier, Siobhan Barry said that she hadn’t been asked directly, notwithstanding the discussion all around her. This avoidance of transparency is obfuscation to the greatest degree. When, at the CCC, Siobhan Barry was told that the community would have liked some input into those representations (knowing that the law doesn’t really permit it), Siobhan Barry on behalf of AGL Energy said “*There is no requirement for us to listen to anybody*”.
6. At the CCC meeting on 10th March, 2010, the AGL representative Siobhan Barry had undertaken to provide a program of AGL’s activities for 2010. She didn’t. At the February meeting of the CCC she undertook to respond, at the March meeting, to a request that AGL co-operate, with other industries including the coal mining industry, in an Environmental Assessment of the Broke and Bulga areas as did BHP in Caroon. She failed to respond other than to say that she was still “considering” it and “hoping to work together with the mines”, although no steps had yet been taken in that regard.
7. The community has provided the CCC with maps delineating the buffers required by the Act in the Area. The input of AGL is required to merely to define which areas will be unavailable to them by virtue of topographical issues. This has not happened and the CCC has been waiting months for this.
8. AGL is simply not taking its role in the CCC seriously.
9. Based on the neglect or refusal of AGL to volunteer any relevant information to the CCC, and underlined by the comment by AGL “*There is no requirement for us to listen to anyone*” , the community moved a resolution at the March, 2010 that Siobhan Barry be counselled by the Chair as to the role of the CCC and the role of Siobhan Barry and AGL Energy in the CCC; and further that Siobhan Barry be censured by the Committee. There has been no vote on that resolution to date.
10. It was at the initiative of the community representatives that a water study has been commenced, and which has been overseen by Professor Gary Willgoose of Newcastle University. See the submissions made in Environmental Assessment 2 above.
8. It was at the initiative of the community representatives, and to the cost of the community, that a detailed mapping of the exploration area has been carried out. This mapping displays the various surface infrastructure or geographical points on the surface of land within the Area, together with the buffers around such as set out in S. 72 of the Petroleum (Onshore) Act. The mapping also shows the exempted areas required by S. 70, and the restricted areas as set out in S. 71. The input required of AGL Energy, and we have been awaiting this for some

considerable time, into the mapping is to add those areas which are unavailable to them by virtue of geographical difficulties, including contours, steep sites, and the like. It is anticipated, therefore, that once AGL Energy has input, the available surface area will be further reduced.

Those maps are reproduced as Figures 4 through to 8 attached.

The resultant mapping reveals, quite clearly, that there is very little surface area available to AGL for exploration between the villages of Broke and Bulga. The remainder of the exploration area is also restricted, but to a lesser degree. See *Figures 6 to 8*.

The maps also show that there is very little surface area available for the erection of a gas processing plant, or a water treatment plant, without impacting severely on the relatively closely settled rural area, or upon the amenity of the Area.

Aerial photographs, commissioned and paid for by the community, support the attached maps in showing the intensive agriculture in the Area. Those photos are also attached.

This investigation of the buffers confirms the conclusions of Sydney Gas Ltd., on 27th July, 2007 that, in relation to the "Grape growing area" that *"The surface area of these lands is most unlikely to be accessed by us during our activities."*

Sydney Gas were then of the view that at least 70% of the surface area of the land within the Broke Bulga Exploration area was unavailable to them. It was as a result of this conclusion that a Memorandum of Understanding was drawn between the community and Sydney Gas, inter alia excising the Area from exploration. This MOU, in the end, however, was never executed, when the Sydney Gas CEO changed.

It beggars belief that AGL Energy did not, when it was initially conducting its due diligence into the viability of the Area, commission mapping similar to that now undertaken by the community, and realise that the majority of the Area was simply unavailable to them. Of course AGL Energy will argue that they may be able to obtain access to some properties from landowners, however it appears that this may be a forlorn hope.

However, AGL Energy announced, through its CCC representative Siobhan Barry, to the CCC meeting on 1st February, 2010, that, notwithstanding the extensive limits on the surface available to them in the Area, that they would *"rely on the Minister's discretion."* ! This is a surprising reliance: firstly that such an expansive and expensive exploration would be totally reliant upon the discretion of the Minister, and; secondly, that no discretion rests with the Minister in relation to those matters set out in Section 72 (1) (a) and (b) of the Petroleum (Onshore) Act, with only a limited discretion in respect of the matters set out in 72(1)(c).

If nothing else, this shows a complete lack of understanding by AGL Energy of the provisions of the legislation under which they are purporting to operate. It also shows a complete arrogance towards the approvals process.

9. PEL 4 expired on 10th November, 2009. Application was made for renewal of the PEL, it is understood, on or about 10th October, 2009. AGL Energy did not advise the CCC that it was making application for renewal, or what representations it had made in relation to S. 30 of the Act. AGL Energy did not discuss with the CCC which area they propose to abandon pursuant to Section 30(2) of the Petroleum (Onshore) Act. Neither the community nor the CCC is able to make any

submission in relation to the renewal of the PEL or in relation to S. 30(2) of the Act.

Now that PEL 4 has been renewed with 17 blocks required to be abandoned within 2 years, it appears logical that, in view of all the circumstances, the area of abandonment should include that small area of PEL 4 which is under the most pressure from residences and from intensive agriculture, ie the area adjacent to Bulga.

10. AGL Energy has vast tracts available to it for exploration and extraction of Coal Seam Methane Gas in areas without the dangers and impacts which would be occasioned in the Area, and would not be penalised by so doing.

THE PETROLEUM (ONSHORE) ACT, 1991, (“the Act”).

The Act was not enacted with the exploration and extraction of coal seam methane gas envisaged.

The Act was drafted without any real belief that the CSM industry would go anywhere and was designed for remote Western areas of the State.

The Act was to be updated during 2007 and 2008, following upon community consultation, but this did not happen. It is noted that there is legislation in Queensland specifically addressing the exploration for, and the extraction of, Coal Seam Methane Gas.

The Act does not address problems which arise due to conflicting land uses, particularly affecting heavily settled rural areas with many residences, a large population and intensive agriculture. This defines the Hunter Bulga Exploration area, an area surrounded by National Park (including the World Heritage listed Wollemi National Park), State Forest, Federal Government Military land, and Mining Leases, as well as hosting a large population on mainly small holdings, three villages, and intensive agriculture and viticulture.

The Act does not envisage surface to in-seam (SIS) drilling and is inconsistent in this regard. Eg. Why does the Act require a 40 metres buffer from a water way when, with SIS drilling, the holder of the licence can drill under that water way?

The Act does not look to compensate landowners, or require impacted landowners' properties to be purchased, as does the Mining Act.

Amendments to the Act were foreshadowed by David Holmes of the DPI in his address to the AMPLA Seminar in about 2006.

Mr. Holmes, in his address, advised that it was proposed to review the Act in a number of areas, particularly in relation to environmental protection, rehabilitation and security.

He further stated that there is a need to address how to measure and contain water on site from start to close, and indeed how operations are to be closed.

Public comment, he advised, would be sought in 2007-2008, but apparently this has not yet occurred.

Mr. Holmes made it clear that the Act was originally written for remote exploration and didn't really address production because it was thought that the industry would never go anywhere.

He indicated that the Act needed to address the structure of titles, compensation, land access, safety, the environment, interaction with coal and other mineral mines.

He said that the review of the Act needed to look at, amongst many other things, whether or not to merge the Mining Act and the Petroleum (Onshore) Act.

The changing of the requirements in relation to Reviews of Environmental Factors was another matter he mentioned, but did not amplify.

In relation to compensation to landowners, he said that it may well change in the future and become more realistic, but no further detail was given.

With the Department as concerned as it obviously is about the relevance of the Act, urgent amendment is obviously required.

CONCLUSION.

The community is not opposed to the use of Coal Seam methane gas, and indeed applauds the coal mining industry for their proposal to use the methane gas from the coal seams which is released from the seams and captured prior to long wall mining.

What the community seeks is a far more considered approach to coal seam methane gas exploration in areas of intensive agriculture, existing rural pursuits townships, small holdings and upper fresh water aquifers.

We understand that these issues have been addressed in other States of Australia by specific legislation, and there is a need to correct the situation in New South Wales.

APPENDIX A.

- Department of Environment and Climate Change:

“As groundwater is extracted (from coal seams) it also depletes natural groundwater reserves and aquifers which can have consequences for other regional land uses which may experience a loss of net usable water. This is particularly relevant for farmers who rely on bore water. One solution can be to reinject recovered water back into aquifers. This can however contaminate these groundwater aquifers”

- Senator the Hon Penny Wong, federal Minister for Climate Change and Water:

“Because pumping (from aquifers) can lead to water moving between different levels of an aquifer, it can cause deteriorating groundwater quality either through changing salinity or chemical composition.”

- CM Atkinson, independent expert (in Yarramalong Valley report):

“The development of a significant gas field based on Coal Bed Methane will severely impact on the security of supply of this (underground) water, by radically altering the groundwater levels and purity.”

“Both local and overseas experience shows that fundamental changes in underground pressures can result in serious escapes of methane gas into the environment.”

- Tim Jones, Hydrogeologist (in Yarramalong Valley report):

“Dewatering coal seams will allow for groundwater migration towards coal seam voids. This has a significant potential to effectively dewater sections of the study area. Dewatering of the coal seams will adversely affect the groundwater system and will have a flow on effect of reduced or lost stream flow. ”

- Minister for Mineral Resources, Mr. MacDonald as quoted in the Sydney Morning Herald on 13th April, 2009:

“The Government will not allow the integrity of water supplies in the region (Liverpool Plains) to be compromised and will not approve of any mining that is likely to have an unacceptable impact on the environment.”

- Mark Harper, General Manager, Sydney Gas Ltd., on 14th July, 2008:

“I’m not going to say there’s a zero chance of water contamination”.

- Parkers Brinckerhoff Hydrogeological report commissioned by Sydney Gas Ltd., were unable to say categorically, or to prove, that there would be no effect on the upper aquifers:

“The proposed exploration activities in the deeper Wittingham coal seams are unlikely to have any effects on the shallower aquifers and creeks.”

ADDENDUM

The Hon. Minister Macdonald.

Re: AGL Energy – Hunter-Bulga Exploration area.

ADDENDUM TO SUBMISSION DATED 15.3.2010.

11. Since the preparation of the executive summary the CCC has met.
12. AGL, when asked if they would prepare an Environmental Assessment prior to commencing a flow test on existing wells HB 01 and HB02 in April, advised the CCC that they were not required to commission an Environmental Assessment.
13. AGL advised the CCC that if a cumulative environmental assessment was required it should be paid for by the Government.
14. The flow test will produce about 30,000 litres of saline water per day to be transported by tankers to Windsor water treatment plant and that some 225 terajoules of gas will be produced and burnt off during the 6 month test.
15. Professor Garry Willgoose in his peer review of a recent water study relating to well HB 02 has made a number of recommendations in relation to the proposed flow test. These are not binding on AGL.
16. The peer review of Professor Willgoose outlines too many unknowns to safely conduct a flow test, the extent of which will spread underneath the village of Broke.
17. This flow test is based on approvals some 7 years old. Both community and Government expectations in relation to the environmental impacts of these activities has changed over that time resulting in amendments to the Act. If AGL applied now for approval, an Environmental Assessment would be required.

Hunter Valley Protection Alliance.

30th March, 2010.