INQUIRY INTO COAL SEAM GAS

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LEGISLATIVE COUNCIL GENERAL PURPOSE STANDING COMMITTEE NO. 5

Submission by Barrington-Gloucester-Stroud Preservation Alliance Inc to the Legislative Council Inquiry into Coal Seam Gas, September 2011



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5 September 2011

The Hon Robert Brown Chair Legislative Council Inquiry into Coal Seam Gas Parliament House Macquarie Street Sydney NSW 2000.

Dear Sir,

The Barrington-Gloucester-Stroud Preservation Alliance would be pleased if you will receive our submission to the Inquiry into Coal Seam Gas, Legislative Council General Purpose Standing Committee no. 5.

The Alliance is most concerned at the environmental risks associated with the coal seam gas extraction process and with the low standard of environmental assessment that has become normal for all mining project assessed under the Part 3A provisions of the *Environmental Planning and Assessment Act 1979.* We consider that a complete review of all legislation and procedures associated with the coal seam gas industry is of critical importance.

We have responded fully to the terms of reference and have included a preliminary list of essential recommendations that we believe are critical to undertaking the necessary review of all aspects of this industry.

We thank the Legislative Council for the opportunity to present this submission.

Yours sincerely,

Garry Smith

Project Officer, BGSP Alliance Inc.,

INQUIRY INTO COAL SEAM GAS TERMS OF REFERENCE

That General Purpose Standing Committee No. 5 inquire into and report on the environmental, economic and social impacts of coal seam gas (CSG) activities, including exploration and commercial extraction activities, allowable under the NSW Petroleum (Onshore) Act 1991 (the Act). and in particular:

1. The environmental and health impact of CSG activities including the:

- a. Effect on ground and surface water systems,
- b. Effects related to the use of chemicals,
- c. Effects related to hydraulic fracturing,
- d. Effect on Crown Lands including travelling stock routes and State forests,
- e. Nature and effectiveness of remediation required under the Act,
- f. Effect on greenhouse gas and other emissions,
- g. Relative air quality and environmental impacts compared to alternate fossil fuels.

2. The economic and social implications of CSG activities including those which affect:

- a. Legal rights of property owners and property values,
- b. Food security and agricultural activity,
- c. Regional development, investment and employment, and State competitiveness,
- d. Royalties payable to the State,

e. Local Government including provision of local/regional infrastructure and local planning control mechanisms.

3. The role of CSG in meeting the future energy needs of NSW including the:

- a. Nature and extent of CSG demand and supply,
- b. Relative whole-of-lifecycle emission intensity of CSG versus other energy sources,
- c. Dependence of industry on CSG for non-energy needs (eg. chemical manufacture),
- d. Installed and availability costs of CSG versus other stationary energy sources,
- e. Proportion of NSW energy needs which should be base load or peaking supply and the
- extent to which CSG is needed for that purpose,

f. Contribution of CSG to energy security and as a transport fuel.

4. The interaction of the Act with other legislation and regulations, including the Land Acquisition (Just Terms Compensation) Act 1991.

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5. The impact similar industries have had in other jurisdictions.

COMMITTEE MEMBERSHIP

The Hon Robert Brown MLC Shooters and Fishers Party (Chair)

The Hon Jeremy Buckingham MLC The Greens (Deputy Chair)

The Hon Rick Colless MLC The Nationals

The Hon Greg Donnelly MLC Australian Labor Party

The Hon Scot MacDonald MLC Liberal Party

The Hon Dr Peter Phelps MLC Liberal Party

The Hon Peter Primrose Australian Labor Party

RECOMMENDATIONS

The Barrington-Gloucester-Stroud Preservation Alliance Inc considers that implementation of the following seven recommendations is critical to the proper assessment, implementation and control of the coal seam gas extraction industry in New South Wales.

1. The moratorium on exploration be extended by a minimum of twelve months. Nothing less would allow the many complex issues to be properly considered.

2. The adherence to the principles of Ecologically Sustainable Development as providing the overarching control. Two sub-principles are particularly relevant; the precautionary principle and the principle of intergenerational equity.

The precautionary principle states;

...where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Implementation of the precautionary principle is a fundamental requirement to ensure proper management of the coal seam gas industry. There is substantial scientific and empirical evidence that coal seam gas will cause serious or irreversible environmental harm. The evidence is more than sufficient to trigger application of the precautionary principle as considered in legal commentary and decisions in New South Wales, and the onus is therefore placed on the CSG industry to implement procedures so that harm will not be caused and to prove to a high level of certainty that it will not be caused. The precautionary principle is relevant to all aspects of the coal seam gas industry but is particularly relevant to the water quality and health impact in their many aspects.

The principle of intergenerational equity states;

...that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

There is considerable danger that we will be passing on a degraded landscape to future generations. This will be particularly so in regard to aspects of water, soil and health but will also apply to the degraded visual landscape. It follows from the above that if the precautionary principle is not implemented, that the intergenerational equity principle will be violated.

3. The implementation of adequate legal and regulating procedures to all areas of environment-socialeconomic assessment and monitoring. This is a complex area that requires terms of reference and submissions in its own right but the following are noted as being particularly relevant.

- 3.1. Changes to the *Petroleum (Onshore) Act 1991* to provide environmental protection during the exploration stage
- 3.2. Repeal of the Environmental Planning and Assessment Act Part 3A provisions.
- **3.3** Replacement of the Part 3A provisions with suitable legislation that does not restrict or completely turn-off relevant environmental statutes.
- 3.4. Curtailment of the excess power given to the Minister for Planning.
- **3.5**. The abolition or upgrading of the Planning Assessment Commission so that it becomes a genuinely independent and informed body.
- **3.6** Introduction of tighter assessment requirements so that the barely adequate level of current assessments is substantially upgraded.
- 3.7. The introduction of merits appeals for <u>all</u> CSG and other mining approvals.

4. Greater levels of community participation should be implemented both by way of providing genuine community participation and by providing local government bodies with greater involvement and authority.

5. All mining companies should return a greater percentage of profits to the community, including all parties who are disadvantaged by the mining development and including local councils. However, it is important that the process does not become one of mining companies being able to 'buy' support for their developments or 'buy off' opposing parties to facilitate their developments.

6. Tighter 'policing' of all mining operations is required in all social-environmental regards. The present position is that CSG and other mining companies are able to obstruct, manipulate and 'fudge' environmental monitoring procedures, particularly those for air and water quality and for noise levels.

7. The procedure known as hydraulic fracturing or fracking must be banned totally, nothing less is acceptable.

COMMENTARY

1. THE ENVIRONMENTAL AND HEALTH IMPACT OF CSG ACTIVITIES

Effect on ground and surface water systems, General

The Barrington-Gloucester-Stroud Preservation Alliance considers that the pollution risks created by the coal seam gas extraction process to ground and surface water systems presents the greatest environmental danger yet imposed on the Australian landscape by any mining or industrial process so far undertaken in this country.

Attempts to alleviate fears by claiming different risk levels according to whether the process extracts shale gas or coal seam gas, the depth of the associated water tables and the geological characteristics of a particular area are ill-informed, reckless and without any scientific justification. All processes in all circumstances present a completely unacceptable risk of serious or irreversible environmental damage.

Coal seam gas and shale gas are the subject of growing environmental concern around the world and an increasing number of countries (France, UK, South Africa, USA and Canada) have imposed total or partial bans in relation to the areas that can be subjected to gas extraction or the processes that can be used. Coal seam gas mining in Australia presents similar challenges. Our environment is subject to at least the same level of danger but arguably is much higher, particularly within the area defined as the Great Artesian Basin and in many coastal and tableland areas in New South Wales, which have especially vulnerable geology formed by intense lateral pressure, volcanic action, complex erosion processes and ancient plate movement.

The cumulative impact of multiple land uses on environmental qualities is a neglected area of environmental assessment that has potentially dangerous consequences. Areas subject to coal seam gas exploration or gas extraction in New South Wales are frequently subject to other intense land uses such as coal mining, other forms of mining, agriculture, tourism and increasingly dense settlement patterns. Each mining/extraction industry seeks to have only its direct individual impacts assessed and steadfastly avoids assessment of cumulative impact combined with other mining activity and land uses. This is an inadequate process that has potentially dangerous consequences.

Continuity and quality of water supply is the greatest environmental challenge facing Australia and the world today. It is our most precious resource - more valuable than coal, gas or gold and we must bestow upon it the absolutely highest level of environmental care that is within our power. We note the concerns expressed by informed scientific bodies both in Australia and overseas and quote by way of example the Australian National Water Commission, December 2010, which said the 'potential impacts of CSG developments, particularly the cumulative effects of multiple projects, are not well understood' and that the CSG industry 'risks having significant, long term and adverse impacts on adjacent surface and groundwater systems'.

The Stroud-Gloucester Valley Geology and ground water

The following comments are not intended to attack the AGL environmental assessment specifically; that assessment is of general industry standard. The purpose is to illustrate the inadequate standard of coal seam gas environmental assessments generally as well as to emphasise the risk that has been imposed on the Stroud-Gloucester Valley by this project.

The Alliance is particularly concerned at the inadequate hydrogeological assessment undertaken by the AGL Gloucester Project in regard to the area's highly susceptible complex geology. In this respect the Alliance relies on the definitive geological study of the region, *Geology of the Camberwell, Dungog and Bulahdelah 1:100,000 sheets*1991, Department of Mineral Resources, and on comments by Professor Alex Grady concerning the AGL Environmental Assessment.

The 1:100,000 map *Dungog 9233* shows the Stroud-Gloucester Valley generally and particularly the northern end to be extremely complex geologically with a high number of major and minor faults. These cause severe pollution risks to ground water supplies in regard to gas extraction and coal mining. The assessment of the valley's coal resources in the above study considers that coal cannot be mined safely and economically in the northern end of the valley and yet the AGL project has been approved to extract gas in the same area, and with critical issues including impact on water left unassessed.

Professor Alex Grady commented at the conclusion of his commentary on the area's geology and the AGL environmental assessment :

I think that you can see from what I have written, that I sense a major lack of understanding of the potential hydrogeological situation, together with a consequent lack of an adequate monitoring system and program, required in order to understand the hydrogeological repercussions (short and long term) of what is proposed in the project.

Lack of a flood study for the project area

This again underlines the lack of the lack of proper environmental assessment in the Stroud-Gloucester Valley for this project and the inadequacies inherent in coal seam gas environmental assessments generally.

A complete flood study of the project area has not been undertaken at any time and no flood assessment was undertaken in the AGL Environmental Assessment, yet the Gloucester and Avon Rivers are known to suffer severe flooding. This is a serious omission that should be rectified by a full study that addresses all flood impact including frequency, depth, velocity and impact on infrastructure, land use and flood plain erosion. We believe that a flood study was required under both ground water hydrology and risk assessment but was omitted by the applicant.

Impact on downstream water users

This includes MidCoast water, which supplies water to the Gloucester-Wingham-Taree-Forster-Tuncurry area as well as rural properties that draw domestic or farm irrigation water from the Manning River system. This matter was not identified specifically in the Director-General's EARs and was not addressed in the AGL Environmental assessment, again illustrating the inadequate standard of assessment that is general throughout the industry.

The matter has caused considerable comment and even a degree of alarm. The *Manning River Times*, 15 March, reported that concern as per the following extract;

MAYOR of Greater Taree City, Cr Paul Hogan said coal seam gas mining could have "a terrible effect" on the environment, and should not be permitted in any area where water supplies might be affected.

As a delegate to MidCoast Water, he was horrified to learn that MidCoast had not been included in the consultation or preliminary design stage which led to the State government's approval of the initial 110 gas wells earlier this month.

Gloucester Shire Council, Great Lakes Council and the NSW Office of Water were invited to a planning focus meeting at which the development was discussed, but potential impacts on drinking water in downstream catchments were not raised, he said.

He described MidCoast Water's omission from the discussions as "like shutting the gate after the horse has bolted".

Robert Oakshott, independent Federal Member for Lyne, similarly commented 'for this decision to have been made by the NSW Government without even asking MidCoast Water to the table simply beggars belief'. (Media release 17 March)

We consider that the matter cannot be rectified by discussions and monitoring after the event, it was a critical component of the assessment process and the environmental process is deeply flawed by its omission.

The use of chemicals and hydraulic fracturing General

The Alliance remains deeply concerned not only by the inadequate and, at times, dishonest information being provided by coal seam gas companies generally but by the use of the fracking process, the huge amount of water that is withdrawn by the process and the use of any chemicals being injected into the water supply.

We note the following issues as being relevant to the fracking process:

- The gas will flow into undetected old bore holes with gas migration having the potential for poisoning and even explosion.
- The water now flowing through the coal seam will pick up carcinogens, heavy metals and other contaminants from the coal seam and flow into aquifers that supply domestic drinking water and agricultural water.
- Fracking and drilling chemicals will be added, most of which have not been evaluated by NICNAS, and enter domestic and agricultural water, again poisoning 'man and beast'.

We are particularly concerned that the fracking process is seen as a 'one size fits all' approach. The fracking process always imposes a high level of environmental risk but this can be extreme in areas of complex geology, such as the Gloucester Basin. However, the gas extraction companies are concerned only with the economics of the fracking process from a recovery consideration and appear incapable of understanding the geological problems of different areas.

The fracking process in the Stroud-Gloucester Valley

AGL advised (SMH August 2011) that the estimates of reserves in the Gloucester Basin may have to be downgraded because of the incidence of fracking that will be involved. It is clear that AGL will be relying on or agitating for substantial use of the fracking process. This is a particularly disturbing situation given the Gloucester Basin's extremely vulnerable geology.

The Gloucester area has already experienced incidents of methane gas migration during exploration as noted in the report *Coal Bed Methane Hazards in New South Wales*, by CM Atkinson, 2005.

Effect on greenhouse gas and other emissions General

The rationale for coal seam gas has been that its combustion produces less carbon dioxide than coal and that it is therefore the ideal intermediate fuel to take us to the next stage of reducing greenhouse emissions. This is a misrepresentation based only on the gas produced during the power generationburning process. However, this is an incomplete assessment at best and a completely misleading and dishonest assessment if viewed totally. There are a number of claims that the amount of greenhouse emissions have been significantly understated, but even leaving that aside, there are other serious concerns. Professor Robert Howarth from Cornell University (research on the life-cycle carbon cost of CSG1) estimates that over a 20 year period, CSG produces at least as much carbon as coal and potentially much more.

Such is the level of concern from scientists in the USA that the Council of Scientific Society Presidents wrote to President Obama in 2010 warning that some potential energy bridges such as shale gas have received insufficient analysis and may aggravate rather than mitigate global warning.

Methane is a far more potent greenhouse gas than carbon dioxide and it is the 'fugitive emissions' that cause concern. These escape into the atmosphere during the production process (flaring, drilling, fracking) and due to losses from the transmission pipelines. The ABS estimates transmission losses for natural gas over 2001-022 at 1.5% of all piped natural gas. Howarth estimates that between 3.6% and 7.9% of the methane from shale gas production escapes to the atmosphere over the lifetime of a well.

We also note that the gas emissions produced in the extraction and processing (principally but not confined to the high use of diesel motors) has not been taken into consideration.

The Stroud-Gloucester Valley

The Alliance is concerned with two further aspects that apply to the Gloucester Basin; the cumulative effect when combined with the increasing level of coal mining that the valley is experiencing and the unusual air inversion characteristics that affect the valley.

The Stroud-Gloucester Valley already has two relatively major coal mines operation within its boundaries, with further expansions and new mines being planned. It is critical that the cumulative impact of all of these development be considered, not just the (usually understated) impacts of individual projects, prepared as if they all operate in complete isolation.

The second aspect, that of Gloucester's local meteorological conditions has been well acknowledged but is not being given consideration in relation to coal and gas development. This characteristic has long been noted by way of the incidence of heavy fogs that frequently blanket the valley and the severe winter temperatures that occur along the valley floor caused by cold air flowing into the valley from the Gloucester-Barrington Tops area.

A further characteristic is now being revealed. The fogs that often gravitate to the northern end of the valley and persist there for some time are beginning to show a grey pollution stain. This, combined with other air measuring and empirical evidence is showing that the Gloucester Valley may already be subject to excessive levels of health damaging air pollution.

Air quality - health impacts

Assessment of air pollution issues and cumulative impact were undertaken by Alliance member Dr Steve Robinson, retired medical practitioner and psychiatrist. Dr Robinson expressed concern regarding the project's cumulative impact with increased mining at the Roseville West and Bowens Road north pits, the increased production at the Coal Handling and Processing Plant and increased train movements. Of critical concern is that emissions from the AGL project will react with the coal dust pollution presently occurring from existing coal mining with potentially toxic effects.

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The Alliance is particularly concerned at the health-damaging fine particle pollution that is produced. Dr Robinson commented in regard to flaring;

My comment to the particulates is that burning them can't make them disappear. They tend to become ultra fine particulates which are less than PM 0.1. These are a size that enter inside cells and cause genetic changes such as inducing malignant processes. They are very much more numerous because the same mass is split into many more particles. It is true that these also often combine with other particles in the atmosphere becoming fine or coarse sized particles again. Any suggestion that flaring breaks organic compounds into their basic elements is wrong, you have to have extraordinarily high temperatures for that to occur 10,000DegC and those temps are not nearly reached. So flaring, to my understanding, is a health endangering process, not a benign one.

Dr Robinson expressed alarm at the placement of the gas central processing unit so close to the coal processing unit, which in turn are both only two km from Stratford school as well as the proximity of wells to private residencies:

The 200 meters proximity of wells to houses means that noise and perhaps air pollution will have adverse health consequences on a significant number of households when projects occur in relatively densely populated areas such as Gloucester Valley, Camden, St Peters etc.

Noise pollution (Dr Robinson continued)

Infrasound and low frequency noise generated by pumps and generators at well heads have not been evaluated, such as the resonance occurring within bedrooms and even skull and chest cavities interfering with the normal functioning of the Autonomic Nervous System of the many close residents. They will disturb cardiovascular system, sleep, concentration, learning and interfere with emotional wellbeing with 24 hour operations being the norm. The greenhouse gas effect on global warming has already had an effect on global health problems with more parasitic diseases and infant diarrhoea. This causes resentments in affected foreign nations.

Psychological stress

Dr Robinson also made the following comment in a larger assessment of psychological stress impact of the development:

Obviously it is not just what you can see from your house that has an impact on you. For many the necessity to change life plans was a stressor. For others it was the decrease in real estate value amounting in some cases to the impossibility of being able to sell their property to escape. The powerlessness of being a victim in a larger game in which they had no influence promoted feelings of depression. Increased stress tends to lead to a reactivation of past psychological disorders currently in remission but may also result in new cases. Psychological stress also causes physical health problems such as raised blood pressure.

2. THE ECONOMIC AND SOCIAL IMPLICATIONS OF CSG ACTIVITIES

Legal rights of property owners and property values.

The legal rights of owners, or rather the lack there of, is a most serious matter that urgently needs to be addressed. The lack of property rights is inconsistent with the Australian economic-social-legal structure and is inconsistent with modern democratic administration and legal processes generally.

Property owners are not notified of exploration licences granted over their properties. Most rural property owners do not have the knowledge, finances or experience to deal with the CSG companies. This situation is worsened by the preferred approach of the CSG companies, which is to divide and conquer. They seek to deal only with individuals, they give misleading information and generally seek to avoid proper community consultation.

There is no protection available to property owners regarding overall economic impact and no satisfactory legislation to address the impact of CSG mining on property values. Information so far available in Australia indicates a dramatic impact on property values, a result consistent with overseas observations. There is evidence that some properties may be virtually unsaleable, a situation that is compounded by the dual impacts of both coal and gas mining, revealing yet another instance where cumulative impact **must** be considered if proper environmental-social-economic impact assessment is the be achieved.

A further matter of economic impact has not even been considered in any assessment to date - the effect of reduced property values on both local investment funding and retirement funding. Property values form a major component of local investment funds and a reduction in these vales and the ability to sell real estate if required reduces local investment ability. Eventually, reduced values have an effect on the owners' retirement funds and security. This has a significant effect with both local and wider impacts.

Food security and agricultural activity,

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Protection must be given to all agricultural land, we should not use narrow, selective definitions such as 'prime' agricultural land.

Much (most?) productive land would not make that category. To illustrate, most of the Sydney surrounds that supplied Sydney with fruit, vegetables and dairy produce for a century and a half (Hills District, Mangrove Mountain-Peats Ridge, Kurrajong, Camden-Campbelltown) would not be classed as prime agricultural land. Any land that produces even specialised low volume niche industries should be considered as 'prime' land.

We need to be very careful that the CSG industry does not respond with a bargaining process whereby they do not seek to mine on 'prime' agricultural land providing greater access is given to other agricultural land.

Regional development, investment and employment, and State competitiveness,

This is a broad area of consideration and comment has been made above regarding reduced property values and the effect of that on investment and retirement security.

The effect on agricultural production is an obvious negative impact that is being downplayed by the CSG companies with claims that the two can co-exit. Empirical evidence shows otherwise; the amount of land lost from production is far greater than claimed and the damage to water supplies and the health risks to livestock have not been properly addressed.

We address an issue of major concern that has been neglected by the CSG companies – visual impact and tourism impact. This is relevant to all CSG mining areas but the comments here are directed more to the New South Wales North Coast and the Stroud-Gloucester Valley. Tourism is an important and highly productive industry throughout this region.

The following comments are made in regard to the Stroud-Gloucester Valley. An understanding of the valley's heritage significance, including its scenic qualities, is of the highest importance to the valley's social/economic base. Tourism is now the valley's biggest industry from a local economic perspective. The danger that arises from the present level of inadequate assessment is that the essential scenic-heritage qualities will continue to be eroded by successive stages of development that are being assessed to a minimal standard and as though each development will operate alone and in isolation. The result of this will be that the valley's special significance will be permanently lost.

The Vale of Gloucester was recognised by the National Trust of Australia (NSW) as a cultural heritage landscape in 1975 and is among the earliest cultural landscapes so identified in New South Wales. That assessment was updates in 1981 and again in 2011. The listing for the Vale of Gloucester sits in the National Trust Register along with other highly significant conservation areas such as the Kosciusko Alpine areas, Lord Howe Island, Parramatta Park and the Cumberland Plain Remnant Communities.

The Vale of Gloucester was entered onto the Register of the National Estate but the entry was not finalised before the register was abolished on 1 January 2004, with the result that additions or changes were not allowed after that date. The Barrington-Gloucester-Stroud Preservation Alliance commissioned a more extensive professional assessment in 2009, copies of which have been sent to all relevant bodies, including the Department of Planning. The heritage assessment, *The Stroud-Gloucester Valley & the Vale of Gloucester: A heritage landscape under threat*, considers that the Gloucester Valley has heritage significance at local, State and National levels for historical, aesthetic, social and technical/research reasons.

This assessment will be used as a basis to gain formal State and National recognition and a nomination is currently before the Department of Sustainability, Environment, Water, Population and Communities to have the Stroud-Gloucester Valley assessed for national heritage significance in the 2011-2012 program.

The Stroud-Gloucester Valley also is adjacent to the Gloucester Tops-Barrington Tops world heritage Gondwana Rainforests of Australia (formerly CERRA), a feature of great environmental significance and tourist potential. It would be an absolute tragedy to have such a highly significant cultural heritage landscape of potentially National significance situated adjacent to a World Heritage natural landscape degraded to the extent that will occur.

Royalties payable to the State,

This is a significant underlying issue to the whole CSG environmental-social-economic problem. We have been advised that for the first five years of production no royalties are payable. In year 6 they commence at 6%, then rise by 1% per annum until year 10, from which time they continue at 10%. This has the effect of creating a frenzied 'gas rush' that acknowledges no one and has no regard to the social, environmental and economic damage done to local communities.

The CSG companies should be made to cost in the full cost of the operations, including the proper royalty cost and the environmental-social cost. This will provide a basic beginning in a proper cost evaluation that will hopefully lead to a more efficient and less intrusive industry. The issue that CSG mining may not then proceed in some areas because the total cost make it uneconomical will provide a more equitable industry.

The requirement is to provide a more responsible industry. In this regard, the making of greater payments to any one body, whether that be the State government, the local government or individual landholders, in order to gain support to push development through contrary to the interests of others will be contrary to the purpose.

It is apparent that under current procedure the gas companies and the State government may be winners but the local area will not be once the initial economic input has passed.

Local Government including provision of local/regional infrastructure and local planning control mechanisms.

The present position whereby local government is excluded from the CSG planning process by way of the *Environmental Planning and Assessment Act 1979* Part 3A provisions is most unsatisfactory. However, it is acknowledged that many local government councils would not have the planning expertise to properly assess development of this type but we also note that this position has been partly caused or at least worsened by the Part 3A provisions.

A totally new planning procedure is required, one that incorporates local government into the planning process while ensuring that the necessary level of technical expertise is available and that the iState government-CSG company biased and inadequate environmental assessments do not continue.

The Planning Assessment Commission has shown that it is incapable of consistently producing skilled, impartial assessments, yet the creation of a genuinely impartial and informed body offers great potential. However, a more clearly defined legislative and administrative structure is necessary if this is to be achieved.

One further problematic area under present planning procedure is that CSG development unreasonably impacts on local government councils to plan for the orderly development of their areas. Gloucester's CSG project is situated on the townships doorstep and almost surrounds the township. Gloucester Shire Council, its residents and its industries are tied in regard to the orderly planning for the area's growth.

3. THE ROLE OF CSG IN MEETING THE FUTURE ENERGY NEEDS OF NSW INCLUDING THE THE NATURE AND EXTENT OF CSG DEMAND AND SUPPLY (This is a most complex issue that requires research, further development and clarification of already existing contradictory data.)

The nature and extent of CSG demand and supply cannot be fully assessed while critical issues remain disputed. Whatever level of demand is currently being claimed could be substantially reduced when details of the overall environmental impact, including greenhouse effect, are fully accepted.

However, leaving that to one side for the time being, there is much uncertainty as to how much of the CSG will be for local consumption and how much will be for export. Information provided by the Australian Industry Group (accessed online) is that most of the gas is for export. This produces a sad result for the people of New South Wales – we suffer the environmental health and social damage of the mining process while the benefits go to the CSG companies and overseas users.

The critical issue that arises is that CSG is **NOT** the ideal alternative energy source to be used as a transitional fuel until other renewable, environmentally safe sources are developed. The use of CSG will delay the proper development of alternative sources. The appropriate action is to immediately fund technological-economic development of renewable energy sources and restrict CSG development to the absolute minimum consistent with that goal.

4. THE INTERACTION OF THE ACT WITH OTHER LEGISLATION AND REGULATIONS

This is a substantial section that requires full and lengthy consideration. It is unclear from the Inquiry terms of reference as to what is envisaged under this heading. Is the enquiry to be far reaching and include, among others, the *Petroleum (Onshore Act) Act 1991,* the *Environmental Planning and Assessment Act 1979* and the *Land Acquisition (Just Terms Compensation) Act 1991*? Is the interaction of these statutes with other legislation such as the *Water Management Act 2000,* the *National Parks and Wildlife Act 1974* and the *Heritage Act 1977* to be considered?

As such, the Alliance considers that this should be a separate submission with its own terms of reference and extended submission time. The Alliance notes that problems exist in all of the above areas and in particular note:

- the inequities in regard to property entry and exploration practices (among other matters) under the *Petroleum* (Onshore Act) Act 1991;
- the lack of adequate environmental control over the exploration process;
- the excessive project development powers given to the Minister for Planning in the Part 3A provisions of the *Environmental Planning and Assessment Act 1979*;
- the deficient and at times misleading environmental assessments that have become the normal procedure under Part 3A of the *Environmental Planning and Assessment Act* 1979 because of the lack of assessment provisions provided by that statue;

- the manner in which the Part 3A provisions of the *Environmental Planning and Assessment* Act 1979 restrict or turn off eleven important environmental statutes, including Water Management Act 2000, the National Parks and Wildlife Act 1974 and the Heritage Act 1977.
- the lack of merits appeals in regard to approval given by the Planning Assessment Commission because they are supposedly an independent body;
- the lack of expertise displayed by the Planning Assessment Commission generally and its lack of independence from the Minister.
- the inadequate compensation provisions of the Land Acquisition (Just Terms Compensation) Act 1991 that fail to take into consideration the full impact and injustice of mining projects on land holders.

The entire legislative process relating to mine exploration and development is among the most inadequate and unjust found anywhere in Australia, perhaps even in the western world. Such an issue cannot be addressed by a mere, ill defined and inadequate subsection in a document of this size and scope. A complete and thorough review of all aspects of this legislation is essential.

5. THE IMPACT SIMILAR INDUSTRIES HAVE HAD IN OTHER JURISDICTIONS

The coal seam gas and shale gas industries are causing much concern around the world. France, the UK, South Africa, the USA and Canada have all imposed partial or complete bans in certain regions and in relation to hydraulic fracturing. The US Environmental Protection Agency is funding a large study on the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources.

We have been made aware of the lack of transparency, even deceit and dishonesty being perpetrated by gas mining companies and have been made aware of the damage being experienced in the US by the film *Gaslands*.

We offer brief extraction from a document prepared by United Myall Residents Against Gas Extraction as expressing concerns consistent with our own.

The behaviour of large multi-national mining and petroleum companies has not engendered trust in their actions. They are seldom up front with their knowledge, information and financial dealings and there is a long history of environmental damage in areas where supposedly, there were sufficient protections in the rules of operation to prevent such damage. The Exxon Valdez, the Gulf of Mexico oil catastrophe and the Montara Wellhead in Western Australia are all examples of disasters where theoretically there was a set of rules to prevent such occurrences.

Dr. Sylvia Earle, one of the world's foremost marine experts and an authority on marine life in the Gulf of Mexico, stated in her testimony to the US House of Representatives Inquiry into the impacts of the Gulf of Mexico oil spill that "while yielding to the pressure to extract golden eggs from the golden Gulf, we have failed to take care of the Gulf itself".

The Alliance expresses its deepest concern regarding the gas extraction process, the behaviour of the companies involved and the damage that has occurred in Australia and overseas both in the gas extraction industry and in other similar industries. There is ample evidence that serious and irreversible damage is occurring and will continue to occur. There is mounting evidence that disasters of the scale of the Gulf of Mexico oil disaster will beset the industry. We cannot allow the coal seam gas industry to continue along its present path.

no further comment