

Submission
No 369

INQUIRY INTO COAL SEAM GAS

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BY ELECTRONIC SUBMISSION

The Director
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Inquiry into Coal Seam Gas

Submission of Moree Plains Shire Council

Several permits for coal seam gas exploration have been granted by the NSW State Government over land in the Moree Plains Shire. At this stage, approaches have been made by the holders of those rights (and the companies working with them) to landholders in the Shire, including to Moree Plains Shire Council as owner of Shire roads, to undertake exploratory investigations for coal seam gas on such land.

As a Council, we have approved a number of resolutions in relation to the coal seam gas industry and its potential involvement in our Shire. Full details of these resolutions can be found on Council's coal seam gas page of our website - www.mpssc.nsw.gov.au.

Most significantly, it has been resolved that Moree Plains Shire Council supports a moratorium on any further seismic surveys, drilling or exploration for coal seam gas within the Moree Plains Shire until such time as the NSW Government has enacted relevant legislation.

At this stage, we consider this moratorium essential until the environmental, economic and social impacts of coal seam gas (CSG) activities, including exploration and extraction activities, are fully investigated, understood and comprehensively regulated. The need for this is driven by potential impacts on sensitive areas within the Shire, like highly productive agricultural areas, ground water supplies and the Great Artesian Basin and its importance to our tourism industry and agricultural production.

In summary, Moree Plains Shire Council considers the following as the areas of greatest concern:

- Impact of CSG activities on water supplies for the Moree Plains Shire as an inland regional centre. This includes water supplies for drinking water, agricultural and grazing uses and as a tourist attraction;
- Lack of benchmarking for water quality and pressure and an auditing regime to detect variations. Benchmarking parameters need to be objective and understandable;
- Limited, if any, accountability of CSG companies for their water usage;
- Limited existing information and understanding in relation to the potential for leakage between aquifers;
- No minimum standard prescribed for the construction of bore holes;
- Limited information available in relation to the identity of chemicals being used, and the quantities being used and the effects of such chemicals on the surrounding environment;
- Limited case-by-case analysis of the impact of CSG on different regions;

- Impact of CSG activities on agricultural production and the water supplies which service agricultural enterprise – the agricultural industry seems the poor cousin of mining development;
- Misinformation in relation to landholder rights and a lack of transparency and equity in negotiations (which is proving divisive in communities because of a perceived unlevel playing field);
- Remediation requirements and financial security for the costs of such remediation;
- Implications of a short-term population increase. Precedent indicates this could create a very difficult operating environment for many local businesses;
- Rapid entry of CSG into communities, creating a disruptive and confusing environment;
- A need to clarify the role of local government in the CSG industry's involvement in its community;
- Need for comprehensive legislation – the process needs to evolve not explode; and
- Lack of strategic evaluation of outcomes – what is the best result in the long-term for the State of NSW and its regions?

Further details in relation to the issues Moree Plains Shire Council has identified are set out below:

1. Effect of CSG activities on ground and surface water systems

As an inland regional centre, the Moree Plains Shire depends on ground and underground sources for its water supply and for the agricultural and grazing industries of our Shire. As you may also be aware, Moree markets itself as "Artesian Water Country"; such is our reliance on this very important resource.

Accordingly, we believe that there is a need for tighter control and protection of our important water supplies and for the monitoring of water security. The introduction of CSG exploration (and any subsequent extraction) into our Shire raises many concerns including:

(a) Water Quality and Pressure

A major concern shared by Council and landholders alike is the impact CSG exploration and extraction may have on groundwater supplies and underground aquifers. However, it will be near impossible to demonstrate the effect of such activities if present water quality and pressure is not benchmarked.

It is beyond the financial resources of local government to engage appropriately qualified experts to undertake the benchmarking exercise – we feel that the NSW Government, as beneficiary of the royalties derived from these activities, should bear the financial burden of benchmarking water quality and pressure and the ongoing monitoring to detect variations.

In this respect, we also understand that there are limited experts available within Australia to undertake this important work and that many such experts have already been engaged by CSG companies. The studies undertaken by these experts for CSG companies have several purposes (including to garner support for their activities) so we query whether such data could be sensibly shared by CSG companies and the NSW Government for a common purpose. In our view, it would be prudent for

benchmarking and monitoring of water quality and pressure to be undertaken on an independent basis so that all stakeholders can confidently rely on the results.

If the expert reports commissioned by CSG companies are deemed appropriate by the NSW Government to be utilised more broadly for these purposes, local government will require financial assistance to retain independent experts to interpret these reports and provide advice.

Benchmarking introduces the need to consider the implications should water quality or pressure diminish as a result of CSG activities undertaken in NSW. We believe that the NSW Government needs to put in place legislation to protect existing users should bore water levels drop or the quality of water diminish as a consequence of these activities. This would include, at the very minimum, adequate long-term compensation. However, we consider compensation a measure of last resort as financial assistance is unlikely to replace lost or lessened water supplies or water pressure – the regulatory environment in which CSG companies operate needs to be sufficiently stringent to avoid the need for compensation to ever be payable.

Further, as the Great Artesian Basin affects a large part of eastern Australia, its protection is not a matter of isolated responsibility for the NSW Government. All relevant State Governments have a role to play in benchmarking and monitoring the water quality and pressure of the Basin and ensuring the longevity of its water supplies.

(b) Accounting for Water Usage

Many agricultural producers of our district hold water licences and are required to manage and account for their water usage. In addition, many farmers in our Shire have undertaken capping and piping of artesian bores as part of the Great Artesian Basin Sustainability Initiative's Cap and Pipe the Bore Scheme. Both these measures have made those affected accountable for their water usage. This has now resulted in the restoration of the aquifers, with an increase in water levels. This investment in the Great Artesian Basin and other shallow aquifers may be lost if water is not accounted for and there is leakage between the aquifers through the collapse of bores.

We find it very difficult to reconcile this sustainable water management strategy with the seemingly unregulated and unlimited water usage of CSG companies. As we understand, the system, as it currently stands, does not provide the NSW Government with any hard data on the volumes of water being utilised and disposed of (including through use of evaporation ponds) as part of the CSG process. The interdependence of aquifers also needs to be recognised, investigated and carefully managed.

This is an area that needs to be addressed by legislation.

(c) Leakage between aquifers

We believe that all parties could benefit from a greater understanding of the potential for leakage between aquifers, caused by CSG companies drilling through water aquifers as part of their exploration and extraction processes, and the implications should this occur.

It is understood that leakage could occur as part of the CSG process itself or subsequently, as a result of a design or construction failure of the bore holes. We believe it would be prudent for the NSW Government to prescribe the minimum standards for the construction of bore holes, including (without limitation):

- A requirement that the concrete used in the construction of such holes be non-shrink as we envisage that shrinkage of concrete used in construction of the holes may occur over time.
- There needs to be measures to address the potential corrosion of casings.
- Holes should be drilled in "stable" areas which are not subject to ground movement.
- CSG companies must put aside contingency funds to meet the costs of repair and rectification of "failed" holes. Such funding would need to be sufficient to satisfy both direct and indirect costs of a failure. (For example, a direct cost might relate to the actual repair costs whereas an indirect cost may arise if the construction failure caused contamination of surrounding soil and water aquifers which needed to be remediated.)
- To ensure the standards do not amount to a toothless tiger, there must be a system for regular monitoring of adherence to these standards and harsh penalties for non-compliance.
- It is recognised that the conditions placed on CSG bore holes are likely to apply equally to older bore holes.

Council believes that mandatory licensing of drillers of CSG bore holes, together with minimum construction standards, would be a good starting point for regulating this part of the CSG industry.

2. Use of chemicals in CSG activities

It is understood that some chemicals are used in the CSG extraction process to aid the flow of gas and to prevent corrosion of bore holes. However, very limited information is available in relation to the specific identity of the chemicals being used, the quantities being used in respect of each chemical and the effects of such chemicals on the surrounding environment.

Given the potential material adverse impacts these chemicals may have on aquifers and surrounding soil, it is imperative that the NSW Government insist on full disclosure of all chemicals (including quantities) used in the process from CSG companies and further investigations be undertaken so that the NSW Government understands the full effect of the use of such chemicals in these quantities on the land and aquifers.

Ideally, the NSW Government needs to be in a position to prescribe which chemicals are permitted to be used and the maximum quantities of such chemicals. The use of these chemicals by CSG companies could then be approved on a case-by-case basis prior to drilling of exploration or extraction holes so at any one time, the NSW Government could definitively confirm the chemicals used by a particular company within a well site for a particular PEL.

Setting the standard then provides a basis for assessing compliance.

If there is nothing to fear from use of these chemicals in the CSG process, CSG companies should not have concerns about the transparency local government and landholders insist

upon. It is reasonable for a landholder to understand the chemicals being used on his property as well as how they are being used in CSG activities and how they are being stored on his land to minimise leakage.

In addition, this regime would assist in managing the standard of water quality as discussed in paragraph 1(a) above. If the chemical usage for a particular well site is known, testing for these chemicals can form part of the water quality monitoring.

3. Hydraulic fracturing

We understand there is an extended moratorium until 31 December 2011 on the use of fracking during coal seam gas drilling in NSW.

We consider that this moratorium should not be lifted unless and until the science of fracking is fully investigated, understood and appropriately regulated. If such investigations reveal concerns in relation to the short-term and/or long-term effects of such processes (or the chemicals involved with such processes) on aquifers, hydraulic fracturing should be prohibited and alternative drilling methods (for example, directional drilling) endorsed.

4. Effects on Agricultural Land

It is acknowledged that we all need to "do our bit" for greener, more sustainable energy sources - as you would be aware, Moree will soon be home to the Southern Hemisphere's largest solar farm. We cannot comment on the "green" credentials of CSG energy as compared to other more traditional forms of energy, however, the fact that a significant portion of CSG activities outside our Shire are undertaken on non-productive land has to be recognised.

The Moree Plains Shire is one of the largest agricultural producing shires in Australia and this industry underpins the long-term economic viability of Moree. To date, it appears there has been little or no consideration of the impact of CSG extraction on lands that are also used for high-value, intensive agricultural endeavours. From an agricultural perspective, CSG raises a number of concerns including:

(a) Identification of, and quarantining, prime agricultural land

On present information to hand, this Council finds it difficult to understand how its valuable agricultural industry operating on prime land can co-exist with the CSG industry. There are very few legislative protections for farming and for farmers' water resources - without water, there will be no production.

The NSW Government must take steps to identify prime agricultural land and quarantine it from CSG activities. Understandably, it will be a difficult task to establish what constitutes "prime agricultural land" but this is a task surely worth undertaking to respect the long-term sustainability of Moree's agricultural industry as one of the main food bowl of Australia. Further, the Moree Plains Shire is a major contributor of food to the world as the majority of food is exported; hence any threat to our agricultural production may threaten valuable export revenue for Australia.

(b) Nature and effectiveness of remediation

This Shire's long-term economic interest is based around farming its highly productive lands and considerable investment has been, and continues to be, made by agricultural producers on this basis. Such activities have been undertaken in the Moree Plains for over 100 years and these endeavours will continue long after the proposed CSG extraction.

In the foreseeable future, the potential impacts of CSG extraction on agricultural land need to be recognised and carefully addressed. This is from the most basic level; for example, ensuring that CSG companies do not inadvertently bring foreign plant materials onto land within the Shire when access is provided for CSG exploration.

Before CSG activities commence on agricultural land, it is imperative that any negative CSG impacts are identified and are capable of being remediated to ensure agricultural activities can continue on the relevant land. If the risks and uncertainties associated with CSG cannot be mitigated, CSG should not be permitted on that land. Remediation is only useful if the land can actually be restored to its former full productive condition.

Further, the commitment of CSG companies to remediation must be real, enforceable and financially supported. We consider that a condition to any exploration permit or mining lease must be a mandatory rehabilitation bond to be held by the NSW Government to satisfy the financial burden of any environmental damage caused by CSG activities. Whilst we agree that it will not be an easy task to establish a formula to calculate the appropriate amount of this bond, we consider it far easier to do this in advance so all CSG companies are well aware of their obligations upfront and landholders have comfort that money (held by the NSW Government) is available to meet the cost of rectifying any environmental damage.

This necessarily contemplates the establishment of a system to evaluate rehabilitation claims which we consider should be administered by the NSW Government.

(c) Impact of CSG activities on Crown Lands including travelling stock routes and State forests

The Moree Plains is home to a number of travelling stock routes which continue to be utilised in the Shire. Access to these routes must remain unimpeded for stock movements and the aquifers which service these routes must be protected from contamination.

(d) CSG by-products

It is noted that one of the benefits identified in relation to CSG is that the by-products can be used for production of high-grade, low cost fertiliser which could be of benefit to our agricultural industry. We understand that this is being explored by CSG operators in other localities.

5. Economic and social implications of CSG activities

As local government, we understand that if CSG can be commercially exploited in our Shire, there are many consequential challenges for the community.

(a) Attracting skilled and non-skilled labour

Experience from our northern neighbours suggests that the mining industry can immeasurably damage a community's ability to retain skilled staff for the existing economy. As an inland regional community, Moree already struggles to attract skilled labour from metropolitan centres without having to compete with the attractive salary packages which CSG companies are able to offer.

From discussions with other Shires which already have CSG operations within their boundaries, we also understand that mining companies are attracting some young professionals to return home to regional centres for employment with them, by offering salary packages competitive with city wages. Also, there may be some potential opportunities to provide training and employment to our indigenous population.

(b) Implications of a population increase

During the exploration and construction phases of CSG extraction, it is anticipated that the community will experience a dramatic increase in population. For a place like Moree, which markets itself as a tourist destination, this has some significant implications including:

- The increased demand for rental accommodation pushes up its value, making housing unaffordable for lower paid workers. We have learned that in other communities this has forced such workers to leave the community or gain employment with the mining companies, which perpetuates the problem.
- Small businesses may be severely affected as it is too expensive to encourage labour to remain with such businesses.
- The tourist market may evaporate because the cost of hotel accommodation increases to address the tightening rental market. Accordingly, there may be diminished capacity for tourists, which has consequences for local tourism facilities. For Moree, there is a potential to lose our regular and loyal customer base built up over twenty years.

Whilst it is widely acknowledged that regional centres are experiencing population decline, it is important to recognise that the population growth attributable to mining enterprise brings with it certain challenges for local government. Local government must be heavily involved in negotiating with CSG companies in relation to the provision of additional housing. A larger population requires additional services, placing pressure on local infrastructure so discussions around the most appropriate location for new accommodation and the infrastructure and service expectations for such accommodation are vital. A fundamental consideration is how the additional demands on services will be satisfied and funded.

Also, in our view, an increase in population is only beneficial if those new members of the population and their families become part of the community and spend the fruits of their labour within it. By way of example only, a "fly-in, fly-out" arrangement potentially factionalises the community, creating an "us and them" mentality between the miners and locals. This is perpetuated if housing for CSG company workers is some distance from our towns and villages as the facilities some CSG companies provide (for example, sporting fields etc) cannot be used by the broader community. Further, by becoming part of the community, many of the

issues associated with isolation and workers being away from family and friends (for example, drug and alcohol abuse and prostitution) can be avoided.

We understand that an increased population could bring many benefits to a community such as the Moree Plains Shire; however, local government needs to be largely involved in the planning and development for this.

It is also essential for local government to understand the likely time commitment of the relevant CSG company to the community. For example, is the influx of CSG workers to the community likely to be permanent and for the long-term or only during the construction phase? Frank discussions are necessary so that the fluctuating population can be appropriately serviced and managed in a manner to mitigate any potential "boom bust" effect on the local economy.

(c) Effect on land values

As representatives of the ratepayers of our Shire, the impact of the CSG industry on the road network needs to be evaluated. There is already extreme pressure on local government in funding the maintenance of its road infrastructure. Understandably, the ratepayers of our community, who are currently in the second year of a Special Rate Variation, want to see their rates directed to maintenance of roads which are important to the community. Given the damage done to road infrastructure in other localities due to CSG activities, it difficult to understand how this industry is carried free, with local government having no recourse to apply rates to these companies.

To provide for the longevity of our infrastructure, the NSW Government should make special provision for local governments to rate CSG companies based on their production wells. Further, we believe there is value in benchmarking infrastructure quality, especially roads, prior to the commencement of CSG activities so the cost of rectifying any road degradation can be passed from Government to the CSG industry.

6. Interaction of CSG issues with NSW legislation

It is clear that the NSW Government needs to carefully plan the legislative framework which regulates the CSG industry, given the potential far-reaching and long-term implications CSG extraction may have on this State.

Based on this Council's concerns (as set out earlier in this submission), there are a number of areas which we have identified which require the protection of a robust regulatory regime, including:

(a) Protection for farmers

We believe that farmers of "prime agricultural land" must have an independent right of refusal against CSG exploration and extraction on land of this classification. Such right must be freely exercisable and not subject to administrative or judicial review.

We recognise that this is a very significant right for the NSW Government to extend to farmers but we feel that this State's prime agricultural land needs to be protected. This does introduce the challenge of classifying land as "prime agricultural land" or otherwise (which is raised earlier in this submission) but we note that the NSW

Government has already anticipated this through the development of its Strategic Land Use policy.

Another concern which has been highlighted is the impact one landholder's decision may have on his neighbours and the community in general. Whilst a landholder is entitled to independently make decisions in relation to CSG on his property, his decision must not directly or indirectly affect his neighbours. We see this situation being avoidable by ensuring that CSG activities are not permitted in NSW in the absence of comprehensive scientific evidence affirming that such activities will not adversely impact on the environment and, in our case, Moree Plains Shire's future as a rural community. Continued economic prosperity for our State's agricultural, tourism and green industries is of paramount importance. Further, mandatory levels of compliance must be established and policed with adequate levels of funding raised and hypothecated to assessment and evaluation of testing to benchmarked standards.

For example, if a landholder decides to sell his property to a CSG company, the same issues and concerns in relation to prime agricultural land use and protection of the aquifers continue to exist for that farmer's neighbours but the protections that selling farmer may have sought for himself and his land no longer apply. Under the present legislation, it is felt that this would avail CSG companies of an opportunity to explore and extract CSG with little or no regard for the environmental implications of their actions.

For this reason, it is essential that the NSW Government be fully abreast of the issues associated with CSG and appropriately legislate for these now, whilst the CSG industry is in relatively infancy in NSW.

(b) Access Agreements

Access agreements set out the arrangements between a farmer and a CSG company in relation to that company's access and use of that farmer's land. To date, a fundamental term of the model access agreements this Council has reviewed relates to both parties preserving the confidentiality of the agreement and their negotiations.

This is creating an environment of fear for farmers as it is not open to them to discuss the terms offered to them by CSG companies with adjoining landholders. There may be cases where a landholder does not wish to disclose the terms of his agreement with third parties but the imposition of confidentiality should be at the election of the farmer.

The negotiations surrounding access agreements highlight the need for landholders to be provided access to suitably qualified legal advisors who are experienced in such negotiations. The right advisors will ensure that a farmer is fully aware of what is potentially on the table. It is important for farmers to be provided with a list of recommended solicitors of this calibre and be free to choose their advisor, with the costs to be met by the CSG companies. Several companies offer to meet legal expenses but this needs to be for a realistic amount, given the importance of the access agreement and the protracted negotiations which may ensue.

From the experiences of our northern neighbours, we believe there are opportunities for landholders to have an active role in monitoring the operations of the wells on

their property. It is understood that this can provide additional streams of income for farmers and it also ensures that the people most familiar with the land are heavily involved in the quality assurance and good operation of the mining enterprise. This could also be extended to the monitoring of artesian bores and water quality as well.

(c) Impact Assessment

As noted throughout this submission, there are many unknowns in relation to the impact of CSG exploration and extraction on land in NSW.

In the circumstances, it would be appropriate for a stringent assessment of such impacts to be undertaken by the Government prior to the granting of the relevant licences and permits. This will ensure that either the appropriate conditions attach to any such licence or permit, or the application for the same is denied or only partially granted.

(d) Compensation

Legislation needs to prescribe a system of compensation addressing:

- The minimal level of reasonable compensation for farmers for the impost caused by CSG activities on their land.
- Payment of mandatory rehabilitation bonds to be held by the NSW Government (as discussed earlier in this submission) and the independent administrative regime to be implemented to resolve claims on these bonds.

(e) The role of Local Government

Local government needs to be a partner in the development of legislation for CSG; not a donkey to carry the burden.

If commercially viable reserves of CSG are identified within a local government shire and earmarked for commercial development by CSG companies, local government needs access to capital to make improvements to public infrastructure to support the greater demands on public services and infrastructure which follow a significant and rapid population increase.

As noted earlier in this submission, there is a role for local government to be heavily involved, early on, in the planning and development of the CSG industry's arrival in their Shire to ensure that some of the benefits brought to the community by such an industry (for example, improved sporting and entertainment facilities) are accessible by the whole of the community.

Local government's role in planning must also incorporate a strategic role. By way of example only, given that the CSG industry is relatively new, there is an opportunity for local government to be involved in planning of designated corridors for infrastructure. By taking a proactive role in this type of development, the impacts on infrastructure and land use can be responsibly managed and minimised and protection from land alienation can be prioritised. Designated corridors for services and pipelines could be constructed within road reserves where possible, provided that sufficient width is available to include all services.

Local government also has a role to play in assisting with the identification of appropriate buffer zones around towns (to ensure that the town has room to grow in the face of a rapid increase in population) and other areas of sensitivity.

In addition, as noted earlier in this submission, the NSW Government must ensure that the legislative framework permits local government to obtain rate revenue from CSG companies.

Please note, the above is by no means an exhaustive list. This submission includes a number of recommendations which will need to be implemented through the revised legislative framework.

7. Conclusion

This Council considers that regional agricultural areas of NSW have an important role in sustaining Australia's food production. Such production, and the communities which support such activities, largely rely on water supply from groundwater and underground sources and aquifers replenished by stream flows. Loss of water supply is significant to long-term production and regional sustainability.

The agricultural industry and the water which supplies it must be protected to sustain these communities and the agricultural output of Australia. The importance these cannot be underestimated. Without expansive and robust legislative reform, the CSG industry threatens both in NSW.

Our own concerns as articulated in this submission indicate that a comprehensive overhaul of the legislation for CSG in NSW is imperative and must be diligently undertaken. This will take time and should take time to ensure that this State has the benefit of learning from the mistakes of others. This State cannot afford to make these mistakes, particularly for this community where our water supply is drawn from a number of water sources, which may be affected by CSG activities.

These are resources that can be used for the long-term and taking time now to get these issues right will add value in the long-term to the CSG resources, provided such resources are capable of being extracted in a manner which results in no lasting impact to the existing environment.

Following legislative reform, we consider that CSG as an energy source may be a hard sell in regional communities. To date, landholders have developed very little trust for the proposed activities of CSG companies and the NSW Government. Trust will need to be fostered in an environment of openness and consultation. Landholders are looking to local government for guidance on these matters so it is essential for local authorities to be an active partner with the NSW Government in CSG regulation.

As highlighted in this submission, such an industry introduces an enormous number of challenges for local government should commercial production of CSG be viable. Management of population movement will be critical to maintaining a viable community and reducing the potential for social displacement as a result of CSG activities.

We are not experts on whether CSG is considered a more valuable future energy source for Australia rather than an export earner for this nation however, if CSG is potentially a

“greener”, more sustainable fuel, it is the NSW Government’s responsibility to take the time to evaluate this resource and thoroughly consider the benefits and costs of its extraction.

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