



Public Submissions into CSG Review

Danica Leys to: csg.review@chiefscientist.nsw.gov.au

Cc: Adair Moar

26/04/2013 04:14 PM

History: This message has been replied to and forwarded.

Dear Ms O'Kane,

Thank you for the opportunity to provide a public submission to this review.

Please see NSW Farmers public submission attached.

Kind Regards,

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Chief Scientist Review CSG - April 2013 - NSWF submission Final.pdf



NSW Chief Scientist and Engineer to review Coal Seam Gas (CSG) activities in NSW

Call for public submissions

NSW Farmers' submission

23 April 2013

NSW Farmers is Australia's largest state farming organisation representing the interests of the majority of commercial farm operations throughout the farming community in NSW. Through its commercial, policy and apolitical lobbying activities it provides a powerful and positive link between farmers, the Government and the general public.

We welcome the Government's decision to instigate this review and to empower you to investigate this complex and controversial issue. NSW Farmers has a long history of involvement in this policy area as it goes to the heart of what sustains our members and the agricultural industry as a whole and that is the protection of our precious food and fibre producing land and water.

NSW Farmers is not opposed to the CSG industry but we believe that CSG resources must be developed strategically and not at the expense of our agricultural land or water. Many rural communities in NSW are reaching a tipping point with the unprecedented expansion of CSG, and dealing with what appears to be evolving technological advancements in extracting this gas.

NSW Farmers' policy position has not changed since entering initial discussions on this issue. We are not opposed to development of the coal seam gas industry, we are simply seeking smart development. While the NSW land management framework has served us well in the past, it is not capable of taking into account the scope and pace of current activity and its cumulative impacts. The primary risk of not taking a strategic approach to land use conflict is degradation or exhaustion of the land and water resources relied on for the production of food and fibre and the impact on regional communities.

Trepidation around the proposals for the expansion of CSG is clearly evident. NSW Farmers submits that it is either due to a lack of rigorous science relating to CSG activity in existence, or a break down in the management and dissemination of this scientific information that is leading to an understandable rejection of CSG development across many sectors of society. NSW Farmers submits that some of these problems exist as a result of a lack of robust, transparent and readily available information, which lead to uncertainty for all stakeholders. Furthermore, there are distinct gaps in the management of specific scientific information and in the regulatory schemes.

The management of scientific information and regulatory schemes are not mutually exclusive events, as each is able to inform the development of the other. However, we submit that significant improvements to both the scientific and regulatory regimes are needed.

NSW Farmers notes the Review's Terms of Reference and whilst all of the Terms are significant to agricultural land use in some way, particular concerns affecting our membership base and the agricultural sector relates to **Term of Reference 2**:

Identify and assess any gaps in the identification and management of risk arising from coal seam gas exploration, assessment and production, particularly as they relate to human health, the environment and water catchments.

This submission will address the specific gaps in the identification and management of both scientific and regulatory approaches in relation to CSG development from both a science and a policy point of view.

1. Science

Overall, there is a lack of scientific rigour in the proposed CSG approval processes under the Strategic Regional Land Use Policy. The long term sustainability of water resources is of paramount importance to our members and landholders at large. The primary risk of not taking a strategic approach to land use conflict is degradation or exhaustion of the land and water resources relied on for the production of food and fibre and the impact on regional communities, obviously having huge implications for future growth. We contend that the current approach, in relation to the science, is nowhere near rigorous enough to be certain that CSG extraction activities are safe and raise some specific concerns below.

- Exploration and Test Pilot Production Risks

It is not at all settled that exploration activities pose no risks to land and water and in its member meetings across the state. Many landholders assume 'exploration' will involve one test well, and some basic exploratory activities and this is often not the case. Farmers' concerns about the effect of coal seam gas exploration as well as extraction and production activities are well-founded, with the National Water Commission warning that the CSG industry "risks having significant, long-term and adverse impacts on adjacent surface and groundwater systems".¹ Exploratory drilling presents a number of well-documented risks, including possible depletion and contamination of aquifers.²

In addition to concerns with drilling and well construction, there are physical impacts to the surface of land associated with exploratory activities that are not appropriate for areas zoned for food and fibre production. These include soil compaction, interference with crops and pastures, disturbance of livestock and subsidence associated with substandard borehole rehabilitation. While best practice requires avoidance and, where possible, rehabilitation of land surface impacts, history has shown that the best intentions of explorers are not enough to avoid interfering with the conduct of farm businesses, and unforeseen impacts are commonplace.

Additionally, not all exploration activities are subject to the *Gateway* process. The regulatory framework does not pick up 'test pilot production' and other exploration activity unless it is classified as 'State Significant Development' (e.g. five or more wells). Therefore, exploration activity which can involve the construction of holding tanks, workers' accommodation, roads, pipelines and gas flares, and operate around the clock for two years, is not subject to stringent regulation.

¹ National Water Commission (2010) *Position Statement: Coal Seam Gas and Water*
http://www.nwc.gov.au/resources/documents/Coal_Seam_Gas.pdf

² WA Department of Mineral and Petroleum Resources. 2002. *Guidelines for the protection of surface and groundwater resources during exploration drilling*, Page 2

- Cumulative Effects

One significant gap in the identification and management of risk arising from CSG activity is the cumulative effect of the activity. Connectivity of water may be understood, but the extent of connectivity and the capacity for interconnectedness to have seriously detrimental 'flow-on' effects to all manner of water users is not known. It is imperative that the scientific approach taken on the regulation of this industry includes studies that give understanding on the cumulative effect on water resources.

NSW Farmers can summarise the gaps in the identification and management of risk regarding scientific data down an absence of a scientific methodologies relating to connectivity implications and cumulative effects. NSW Farmers needs an assessment of risks including risks to groundwater such as yield impacts, effects of horizontal drilling, hydraulic fracturing, all effects to wells and bores, subsidence.

- Lack of robust and available data

One of NSW Farmers' absolute priorities in the debate about CSG activity is ensuring the quality and quantity of the precious ground and service water, which is so fundamental to the survival of farming, is maintained or improved. NSW Farmers is concerned at the continuing lack of widespread and available groundwater data in NSW. There is increasing acknowledgement by Government, scientists and industry that our understanding of the resource and our ability to manage it is grossly inadequate. Groundwater exists within the three dimensional matrix of the underlying geology of our catchments. Being largely inaccessible to direct observation, groundwater mapping only can be achieved through modelling processes involving bore data, remote sensing and geological study.

As we have already contended, there is a clear lack of upfront scientific data on the impacts on CSG activities on the environment and in particular, water resources. It is not the activity *per se* that is questioned by NSW Farmers, but the unknown. There is no centralised (quantity) data available to monitor cumulative activity.

The most detailed studies of hydrogeology are, on the whole, currently undertaken by exploration companies. As NSW Farmers understands not only does this information stem from unaligned purposes, it is treated as proprietary and very often, not made available to Government for planning and management purposes.

NSW Farmers argues that interference with a critical strategic national resource demands the highest level of transparency. If an exploration company wishes to have a share of the aquifers as part of its operations, NSW Farmers argues that it must contribute to the public evidence base that demonstrates that its operations are safe and that impacts do not exceed the conditions of approval.

2. Policy

The Strategic Regional Land Use Policy was aimed at restoring the balance between agricultural and the extractive industries – 'to provide greater protection for valuable agricultural land and better balance competing land uses.'³ It sets in place a *Gateway* process which is designed to be an independent review of CSG activity impacts on land and water resources for a CSG proposal on *Strategic Agricultural Land*. The *Gateway* process is grossly inadequate in the identification and management of risk as it is to consider proposals against the *Gateway* criteria relating to agricultural and water impacts, and if the criteria are not met within the proposal, a certificate is issued containing conditions for the development of the proposal.

³ 'Strategic Regional Land Use Policy *Foreword from NSW Premier Barry O'Farrell*' State of NSW through the Department of Planning and Infrastructure page 2 available at <http://www.planning.nsw.gov.au/LinkClick.aspx?fileticket=DkJl33ytuKs%3d&tabid=495&language=en-US>

Not only is there a clear lack of scientific rigour to this process as we have outlined above but there contains no 'stop' and/or 'wait' mechanism available to the *Gateway* panel to prohibit a CSG project from going forward. Furthermore, only 'state significant' exploration proposals on the State's most valuable agricultural land are currently subject to additional planning assessment through the *Gateway* before they are allowed to proceed to the development application stage.

We have previously expressed dissatisfaction with the governments Aquifer Interference Policy. In its current form it has two main functions. Firstly, it recommends volumetric use over 3 mega litres be licenced and accounted for, and secondly it sets minimal harm criteria which projects should not exceed. The minimal harm criteria set non-binding standards for impacts on the water table, water pressure, and water quality.⁴ Whilst originally envisaged that the Water Minister would be responsible for taking advice from the NSW Office of Water and determining whether to issue an authority under the *Water Management Act 2003*, the process has been amended to only require the Minister to give non-binding advice to the Gateway Panel and Planning Assessment Commission.

In practice there is no requirement on proponents to meet the minimal harm requirements of the policy and certainly for communities impacted by developments that their water will be protected. Impacts considered unacceptable by communities and existing industries could be traded off for short term economic gains associated with coal and gas proposals. As a non-binding instrument, communities and farm businesses will be denied the level of protection and certainty they were promised - undermining the relationship between the extractive industries and broader community.

Conclusion

Overall, landholder rights are low in comparison to exploration company rights. Landholder sense of ownership and morale on regulation processes and forming regulations in the first instance is low. The convoluted regulation processes are not easily understood nor apparent. This issue is made further contentious because policy allows exploration companies to proceed in all cases, which gives companies no impetus to treat landholders with respect or professionalism. This is an unfortunate arrangement when it is landholders who have worked the land and water on a continual basis over generations, and built upon knowledge of sustainability in the management of these resources.

NSW Farmers' position on CSG activity in NSW is based on concerns held by landholders, concerns facing rural communities, and unease in a general, wider societal sense. NSW Farmers proposes that these uncertainties and fears are based in gaps and mismanagement of risk in relation to both scientific and procedural schemes. With rigorous, scientific information being sought and made available, and used to inform the *Gateway Process*, and to in fact provide meaningful regulation and prohibition where appropriate, landholders may feel some confidence in the management of risk to land and water resources.

⁴ See NSW Department of Primary Industries' Office of Water's 'Aquifer Interference Policy' available at: <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference/Aquifer-interference>