Submission No 335

INQUIRY INTO COAL SEAM GAS

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Submission to Legislative Council General Purpose Standing Committee No. 5

Inquiry into Coal Seam Gas

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TABLE OF CONTENTS

TABLE OF CONTENTS	2
EXECUTIVE SUMMARY	3
SUMMARY OF RECOMMENDATIONS	4
INTRODUCTION	7
1. BACKGROUND	8
1.1 Framework for Sustainable Development	8
1.2 Strategic Regional Land Use Policy	
2. ENVIRONMENTAL AND HEALTH IMPACTS	10
2.1 Effect on ground and surface water systems	. 10
2.1.1 Aquifer interference	11
2.1.2 Independent water testing	
2.1.3 Cumulative impacts	
2.1.5 Test pilot production	
2.2 Effects related to the use of chemicals	17
2.3 Effects related to hydraulic fracturing	17
2.4 Effect on Travelling Stock Reserves	
2.5 Nature and effectiveness of remediation required under the Act	18
3. ECONOMIC AND SOCIAL IMPLICATIONS	20
3.1 Legal rights of property owners	20
3.1.1 Ownership of petroleum resources	20
3.1.2 The NSW land access framework	
3.1.3 Access to legal advice	
3.1.4 Compensable loss	
3.2 Property values	
3.3 Food security and agricultural productivity	
3.3.1 The food security landscape	
3.3.2 Can coal seam gas and agriculture co-exist?	28
3.4 Regional development and investment	
3.5 Royalties	
3.6 Considerations for local government and planning	
3.6.1 Local government	37
3.6.3 Pipelines	
4. THE ROLE OF CSG IN MEETING ENERGY DEMAND	3/1
	-
4.1 Nature and extent of CSG demand and supply	
4.2 Interaction with other legislation	
4.2.2 The Native Vegetation Act 2003	35
ATTACHMENT 1	
ATTACHMENT 2	39



EXECUTIVE SUMMARY

NSW Farmers welcomes the opportunity to provide information to this important inquiry. Coal seam gas (CSG) is an area of acute concern for members of NSW Farmers who feel disempowered by the position they are placed in by the current regulatory framework, and hold very real concerns about the effect the industry will have on precious land and water resources and in turn their livelihoods. The uncertainty facing areas currently under exploration is having a detrimental effect on the confidence of the agriculture sector as a whole and urgent reform is required to enable farmers in NSW to return their focus to sustainable food and fibre production.

This submission advocates that, as a first step, farmers in NSW should have their basic property rights upheld through legislative changes which will allow them to refuse access to mining and CSG companies. Currently, companies which hold licences to explore or produce CSG are guaranteed access to private land provided they pay compensation against a limited set of criteria. Guaranteeing land access removes the onus on the company to negotiate in good faith, and puts the landholder at a further disadvantage when entering discussions with petroleum companies. This submission argues that introducing a right of veto is a prudent step toward improving treatment of landholders and communities, compensation and ensuring environmental concerns are addressed.

At the fore of NSW Farmers' concerns on this issue is the lack of strategy and prioritisation around the way Australia's substantial gas resources are being exploited. The CSG reserves in NSW represent 0.7% of the total gas reserves we are currently able to profitably extract. This raises significant questions around why we are threatening food production, our environment and the fabric or our rural communities to extract this gas when we still have some 63 years of conventional gas remaining which avoids these concerns.

There is growing anxiety in affected communities around the effect the CSG industry is having on the saleability of properties in the area. Anecdotally, property agents are reporting low sales figures and confidence in the sector as a whole is lagging. This submission calls on the NSW Valuer General to commission an independent study of the effect CSG has on the value and saleability of farm land. We are also seeking legislative changes which will give landholders the option of obtaining an independent valuation prior to CSG development to ensure they can quantify any diminution of the value of their land.

The concerns around the effect CSG exploration and production will have on our land and water resources continue to go unresolved. It goes without saying that land and water are both crucial to food and fibre production and farmers' livelihoods. This submission outlines the need for urgent protections for groundwater including thorough data collection and modelling capable of taking into account the CSG industry's cumulative impacts.

NSW Farmers is supportive of the current Coalition Government process outlined in its Strategic Regional Land Use Policy which promises to address a number of the issues outlined in this submission. Many of our key concerns are, however, outside the scope of that policy and it is of enormous concern that landholders across the state are currently dealing with CSG development under an outdated regulatory framework.



SUMMARY OF RECOMMENDATIONS

Recommendation 1:

That the NSW Government take heed of the advice from the National Water Commission and take a precautionary approach to CSG developments, ensuring that risks to surface and ground water resources are carefully and effectively managed.

Recommendation 2:

That the NSW Government lobby for mining and coal seam gas activities to be listed as specific items under the National Water Initiative in order to afford both groundwater and surface water greater protections.

Recommendation 3:

That the NSW Government require all CSG companies to fund independent, forensic water testing for landholders and neighbouring landholders before, during and after exploration and/or extraction/production activities.

Recommendation 4:

That the NSW Government amend current assessment requirements such that cumulative impacts are assessed for all future CSG workplan approvals, exploration and production licence applications.

Recommendation 5:

That the NSW Government seek an urgent briefing on the National Groundwater Information System and how it can contribute to implementation of the Strategic Regional Land Use Policy.

Recommendation 6:

That the NSW Government require that proponents submit hydrogeological data collected in relation to their projects for inclusion in the National Groundwater Information System and NSW groundwater databases. This data should be available for public scrutiny.

Recommendation 7:

That the NSW Government call for a detailed progress report on the National Groundwater Information System (NGIS); the introduction of a regulatory requirement for mining and CSG proponents to provide data to the NGIS; and conformation that the NGIS will provide groundwater mapping suitable for the detailed requirements of the Strategic Regional Land Use Policy.

Recommendation 8:

That the NSW Government amend the NSW Petroleum (Onshore) Act 1991 to require access agreements to be negotiated per core hole/well rather than for the entire exploration process through to test pilot production, unless requested otherwise by the landholder.

Recommendation 9:

That the NSW Government maintain a moratorium on fracking until all fracking chemicals have been tested by the national regulator (the National Industrial Chemicals Notification and Assessment Scheme), including simulated in-situ testing.

Recommendation 10:

That the NSW Government immediately institute a public register of fracking sites, including fracking chemicals and quantities used, to be kept up to date and readily available to the public.



Recommendation 11:

That the NSW Government immediately increase the number of enforcement and compliance staff within the Division of Mineral Resources to enable more timely responses to reported breaches of licence conditions, including those pertaining to chemicals.

Recommendation 12:

That the Petroleum (Onshore) Act 1991 be amended to prohibit the granting of licences over travelling stock reserves.

Recommendation 13:

That, to the extent possible, CSG-related infrastructure such as gas pipelines be placed in public infrastructure corridors rather than private farmland.

Recommendation 14:

That Part 6 of the Petroleum (Onshore) Act 1991 be amended to require licence holders to rehabilitate land back to its original condition at the end of a petroleum tenure.

Recommendation 15:

That s82 of the Petroleum (Onshore) Act 1991 be amended to require, rather than allow, removal of petroleum plant at the cessation of production.

Recommendation 16:

That as part of its inquiry, General Purpose Standing Committee No. 5 consider whether the Minister for Resources and Energy is the appropriate minister to oversee protection of the environment under Part 6 of the Petroleum (Onshore) Act 1991.

Recommendation 17:

That a standard condition be introduced which requires licence holders to maintain environmental insurance in favour of landholders and their land.

Recommendation 18:

That the Petroleum (Onshore) Act 1991 be amended to allow farmers to refuse access to CSG companies.

Recommendation 19:

That the word 'initial' be removed from s69D(2A) of the Petroleum (Onshore) Act 1991 to ensure that landholders are reimbursed for the expense of obtaining legal advice.

Recommendation 20:

That the Petroleum (Onshore) Act 1991 and Pipelines Act 1967 be amended to ensure that landholders are reimbursed for the expense of obtaining tax advice in relation to their dealings with CSG companies.

Recommendation 21:

That Part 11 of the Petroleum (Onshore) Act 1991 be amended to impose a broader liability which includes water and time loss compensation, with water being on a strict liability basis.

Recommendation 22:

That the NSW Government fund a targeted campaign aimed at educating landholders and communities more broadly about their rights and obligations regarding mineral, coal and coal seam gas exploration, extraction and production.



Recommendation 23:

That the NSW Government fund the appointment of a Departmental Mining and Coal Seam Gas Liaison Officer within NSW Farmers.

Recommendation 24:

That the NSW Government expedite the development and implementation of community engagement guidelines such that communities are fully informed of proposed exploration activities affecting their local area; have access to property-scale mapping highlighting any relevant exploration or mining licences; have a central point of contact for companies to engage with the community; and meaningful timeframes for having input and responding to company information.

Recommendation 25:

That the NSW Valuer General urgently commission an independent study into the impacts of CSG exploration and production on property values

Recommendation 26:

That the Petroleum (Onshore) Act 1991 be amended to provide for reimbursement of landholders' independent valuation costs prior to conducting exploration.

Recommendation 27:

That the Petroleum (Onshore) Act 1991 be amended to ensure that agreements setting out compensation during CSG production run with the title of land.

Recommendation 28:

That independent analysis be undertaken on the socio-economic impacts of coal seam gas development.

Recommendation 29:

That community benchmarking be introduced as part of the planning process for regions affected by, or earmarked for, CSG development.

Recommendation 30:

That a percentage of all mining and coal seam gas royalties be quarantined for expenditure in regional NSW

Recommendation 31:

That the NSW Government identify and spatially define strategic agricultural land and prohibit mining and coal seam gas on those areas.

Recommendation 32:

That the NSW Government initiate a national dialogue on strategic use of the nation's gas resources aimed at limiting production on sensitive food producing areas.



INTRODUCTION

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.

NSW Farmers welcomes the opportunity to provide this submission to General Purpose Standing Committee No. 5 (the Committee) and applauds the Committee's decision to investigate this complex and increasingly controversial issue. NSW Farmers has a long history of involvement in this policy area, first in mining and more recently around coal seam gas. Our involvement reflects the level of concern within our membership about the impact the coal seam gas (CSG) industry may have on land and water resources.

The main focus of current Government reforms are around the planning process and strategically allocating land between the mining, CSG and agriculture. These are valuable reforms, but do not take into account a number of our concerns with the property rights of landholders, or the role of CSG in meeting the NSW energy task. Accordingly, these issues are given greater weight in this submission.

NSW Farmers is not fundamentally opposed CSG, or mining for that matter. If developed responsibly we believe both these industries can play a role in generating jobs and income for the state, and particularly the regions, of NSW. The current tensions between agriculture and CSG lie in the way CSG companies conduct their negotiations with landholders and communities, the impacts on land and water, the lack of certainty for those investing in agriculture, and the need to ensure our best farm land is not alienated from food production.

NSW Farmers believes it is prudent that a moratorium on CSG development be put in place until the concerns outlined in this submission are addressed. We accept that to some degree this is the status quo given the commitments by the Coalition Government in its *Strategic Regional Land Use Policy*. The policy requires community consultation, agricultural impact assessments, and aquifer interference approvals prior to granting CSG authorities, and it appears to be the position of the Government not to allow further development until these mechanisms are in place. NSW Farmers is working closely with the NSW Government through its Stakeholder Reference Group to ensure these mechanisms are developed to an acceptable standard.



1. BACKGROUND

1.1 Framework for Sustainable Development

NSW Farmers released its Framework for Sustainable Development: Planning for Agriculture and Extractive Industries (see Attachment 1) in October 2010. The Framework is the culmination of many months of policy debate and analysis by NSW Farmers and promotes statewide, upfront strategic planning as a tool to resolve the current conflict over mining and coal seam gas development in areas of productive agricultural land and water resources noting the scale of current mineral, coal and coal seam gas exploration and extraction/production in NSW (see Figure 1). The Framework recommends a five-step process to deliver adequate protection for agricultural land and water resources and farmers' property rights. It is important to note the overwhelming support of a range of stakeholders (perceived as both supportive of and cautious about current mining and coal seam gas development in NSW) for the principles espoused in the Framework, in particular the focus on upfront strategic planning. In fact, NSW Farmers Association and NSW Minerals Council are in 'furious agreement' about the need for an upfront strategic planning approach to provide planning certainty for all stakeholders.

The one element of the Framework that generated considerable media commentary and hence public debate was the recommended introduction of a moratorium on new mining exploration and production licences as a transition to the proposed new strategic planning framework (see Attachment 2 for further detail). Following months of debate, this element of the Framework has now been addressed in part by the current 60-day moratorium on the granting of new coal, coal seam gas and petroleum exploration licences in NSW, recently announced by the NSW Government as an element of its *Strategic Regional Land Use Policy*.

1.2 Strategic Regional Land Use Policy

The NSW Liberals and Nationals *Strategic Regional Land Use policy* was launched 16 February 2011 following almost two years of detailed discussions between the then Shadow Minister for Industries, NSW Farmers Association and the NSW Minerals Council. NSW Farmers viewed the Policy as a positive and significant step forward in achieving a balance between the State's major land uses, not limited to agriculture and mining. The Policy outlines a clear commitment to statewide strategic planning, which aims to provide a framework for future development right across NSW – not just those regions currently under the most development pressure. The Policy included an ambitious timeframe for delivery of crucial legislative and policy provisions, including a 'period of tougher assessment' by way of formal transitional arrangements.

The NSW Government released details of these transitional arrangements to allow for the staged implementation of its *Strategic Regional Land Use Policy* 21 May 2011. Most significant in this announcement was the immediate 60-day moratorium on the granting of new coal and coal seam gas exploration licences in NSW. This was recognition of the need to 'take a breath' and assess the current levels of mining and coal seam gas activity, and the ways in which these activities are – or are not – regulated and enforced across the state. The transitional arrangements also include a requirement that all applications for coal and coal seam gas exploration licences be exhibited for public comment. This is recognition of the previously appalling levels of community engagement in the process, where landholders and communities more broadly were not aware of an exploration licence until well after it had been granted and an exploration company came knocking at the door. How this process will operate in practice is yet to be determined, recognising that in the case of coal seam gas exploration applications in particular, massive tracts of land are involved, affecting potentially tens of thousands of community members.



The transitional arrangements also include the public notification of Guidelines which will inform the assessment of impacts on strategic agricultural land from proposed development activities; and a requirement that all new coal and coal seam gas extraction applications be accompanied by an Agricultural Impact Statement. This is of extreme importance to NSW Farmers, as the new Policy requires that Agricultural Productivity Impact Assessments be undertaken for new mining and coal seam gas activities. Designing a suitably robust methodology that can be readily implemented, independently assessed and has the confidence of the agricultural community is an enormous challenge, but a vitally important one that NSW Farmers is working closely with the NSW Department of Primary Industries to address.

The transitional arrangements also included the exhibition of an Aquifer Interference Regulation for public comment, aimed at introducing a suite of new measures to better regulate activities that impact on aquifers (see Section 2.1.1 below).

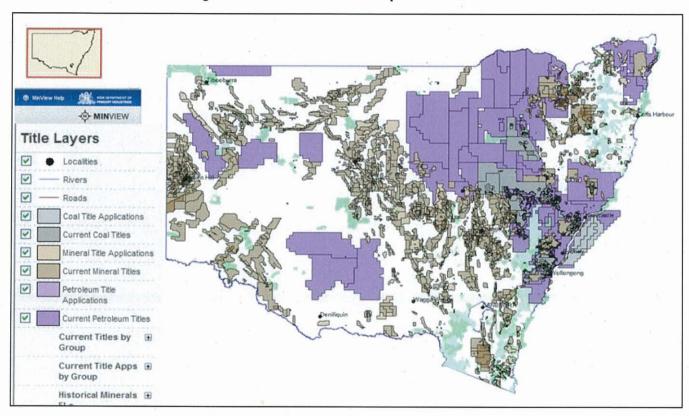


Figure 1: Current mineral and petroleum titles in NSW1

¹ Extracted from Minview, August 2011 (http://www.minerals.nsw.gov.au/mv2web/mv2)



2. ENVIRONMENTAL AND HEALTH IMPACTS

2.1 Effect on ground and surface water systems

One of NSW Farmers' absolute priorities in the debate about coal seam gas is ensuring the quality and quantity of the precious ground and surface water so fundamental to the survival of farming is maintained or improved. Farmers' concerns about the effect of coal seam gas exploration, extraction and production 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, noting that

"current projections indicate the Australian CSG industry could extract in the order of 7500 gigalitres of co-produced water from groundwater systems over the next 25 years, equivalent to ~300 gigalitres per year."²

This equates to the volume of 120 000 Olympic swimming pools per year. Similarly, the Queensland Government has acknowledged that "the extraction of CSG to support an LNG industry may also have impacts on the State's groundwater resources"³. Here in NSW, the NSW Government, via its Department of Primary Industries, was found to be

"uncertain' whether the operation complied with "standards, plans and policies" for air quality, "greenhouse impacts", and the use of "surface and ground water". It was confident the environment was "highly resilient" to "sediment laden water run-off" while it was "uncertain" about whether damage could be reversed or whether it complied with standards."

when questioned about the impact of proposed coal seam gas exploration activities in St Peters, Sydney. Despite this uncertainty, the petroleum exploration licence (PEL) was granted.

The above examples signal clearly to NSW Farmers that the CSG industry should only be permitted to proceed with extreme caution, and only in certain locations, consistent with the National Water Commission's recommendation that:

"To meet NWI objectives, the Commission recommends that industry, water and land-use planners, and governments adopt a precautionary approach to CSG developments, ensuring that risks to the water resources are carefully and effectively managed".

Despite these clear warnings, exploration licences are being granted right across the country. In some instances, the proponents themselves acknowledge the likely effects on ground and surface water systems, as indicated by the following comments from Santos in its Environmental Impact Statement regarding the GLNG Project in Queensland:

"In all fields there is potential for water to move vertically from aquifers above and below the wellfield into the coal seams as a result of the huge pressure differential caused by the drawdown of groundwater heads... Because the Walloon Coal Measures have been dewatered and the only source of replenishment is the Hutton Sandstone, it is expected that the rate of recovery of water levels in the Walloon Coal Measures will be very slow and drawdown in the Hutton Sandstone aquifer will continue for many hundreds of years after operations cease."

Indeed, the CSG industry's peak representative body, the Australian Petroleum Production and Exploration Association acknowledges the legitimacy of landholders' concerns about the effect of CSG on ground and surface water systems, as indicated by the following comments

General Purpose Standing Committee No. 5 – Inquiry into Coal Seam Gas Contact: Brianna Casey, Senior Policy Manager

20

² National Water Commission (2010) *Position Statement: Coal Seam Gas and Water* http://www.nwc.gov.au/resources/documents/Coal_Seam_Gas.pdf

³ Queensland Government, "Blueprint for Queensland's LNG Industry," (Brisbane: Department of Employment, Economic Development and Innovation, 2009). Page 5

⁴ New Matilda (2011) *NSW Rubber Stamps Gas Drilling* http://newmatilda.com/2011/09/02/nsw-rubber-stamps-gas-drilling

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

⁶ Santos (2009) Santos GLNG Project Environmental Impact Statement (Section 3.4.2)



"Mr Dunn said while some people opposed CSG because it was using fossil fuel, "other people have legitimate concerns about likely impact on water, particularly for landholders"⁷

"Drilling will, to varying degrees, impact on adjoining aquifers," said the spokesman, Ross Dunn. "The extent of impact and whether the impact can be managed is the question."

Given the above comments, and the massive area of NSW currently earmarked for coal seam gas exploration (see Figure 1), it is clear that State and Federal Governments are not heeding the warnings of the National Water Commission, or indeed their own Departmental advisors.

Recommendation 1:

That the NSW Government take heed of the advice from the National Water Commission and take a precautionary approach to CSG developments, ensuring that risks to surface and ground water resources are carefully and effectively managed.

2.1.2 Aquifer interference

NSW Farmers was successful in having a commitment to the timely development and implementation of an Aquifer Interference Regulation included in the *Strategic Regional Land Use Policy*. In the past, proponents have benefited from being exempted from what NSW Farmers deems critically important aquifer interference approvals under Section 91 of the *Water Management Act 2000* via Part 3A (major project provisions) of the *Environmental Planning and Assessment Act 1979*. This has now been remedied by the removal of Part 3A and the recent introduction of the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Bill 2011*, ensuring that mining and coal seam gas activities are no longer exempt from the requirement to obtain an aquifer interference approval. This is consistent with the Strategic Regional Land Use Policy, which stipulates that:

- "all development applications will be required to adhere to the Regulation" (p3);
- "major projects are subject to greater scrutiny" (p4); and
- "where CSG activities involve interference with groundwater systems, we will require that proponents must obtain an Aquifer Interference Approval under S91 of the Water Management Act 2000" (p5).

Interim aquifer interference measures were recently announced by the NSW Government as a precursor to the final Aquifer Interference Regulation. As a member of the NSW Government's Stakeholder Reference Group overseeing implementation of the *Strategic Regional Land Use Policy*, NSW Farmers is lobbying for a rigorous and robust Aquifer Interference Policy and Regulation, with a view to having a permanent regulatory solution in place by February 2012 at the latest.

As raised in its submission⁹ to the Senate Standing Committees on Rural Affairs and Transport on the *Inquiry into Management of the Murray Darling Basin – impact of mining coal seam gas*, NSW Farmers is keen to explore the merits of introducing a Federal Aquifer Interference Regulation for mining and coal seam gas activities via the Federal *Water Act 2007*, which may provide additional protections for groundwater systems within the Murray Darling Basin. Given the National Water Commission's strong position on both mining¹⁰ and coal seam gas¹¹, notably the Commission's

⁷ Sydney Morning Herald (28 April 20111) CSG groundwater concerns 'legitimate' http://news.smh.com.au/breaking-news-national/csg-groundwater-concerns-legitimate-20110428-1dxpn.html

⁸ Sydney Morning Herald (3 August 2011) Coal seam damage to water inevitable http://www.smh.com.au/environment/water-issues/coal-seam-damage-to-water-inevitable-20110802-1ia00.html

http://www.nswfarmers.org.au/ data/assets/pdf file/0017/72116/11019 Senate Submission - CSG in the MDB.pdf

http://www.nwc.gov.au/resources/documents/Mining_PS3.pdf

http://www.nwc.gov.au/resources/documents/Coal Seam Gas.pdf



comments about the relevance of both industries to the National Water Initiative (NWI), it would appear that there are grounds for amending the NWI to include mining and coal seam gas activities as specific items under the Initiative.

Recommendation 2:

That the NSW Government lobby for mining and coal seam gas activities to be listed as specific items under the National Water Initiative in order to afford both groundwater and surface water greater protections.

2.1.3 Independent water testing

Given the significance of NSW Farmers' concerns regarding potential effects on ground and surface water systems, NSW Farmers actively encourages members to request that independent water testing be conducted before, during and after exploration and/or extraction activities. NSW Farmers believes that CSG companies should bear the costs of independent water testing, given that coal seam gas developments are proponentdriven exercises that landholders have had imposed on them. In the case of CSG, where access agreements are negotiated on the properties where physical infrastructure will be put in place, it is vitally important that neighbouring landholders - who are not privy to an access agreement, but could be seriously affected (for example if horizontal drilling techniques are employed that extend under the neighbour's property) - also have access to independent water testing. Given NSW Farmers' understanding that the costs of independent, comprehensive water testing (to the satisfaction of hydrogeologists consulted by NSW Farmers) is at least \$5000 per bore hole over a number of years, it is unreasonable to expect the landholder to be responsible for these costs. Whilst CSG companies may conduct their own water testing, the question of independence remains a vexed issue, affecting landholders' confidence in the data. Similarly, the suite of tests conducted may not mirror those recommended by hydrogeologists engaged by landholders, in which case the veracity of the data may be questioned. NSW Farmers is working with the National Farmers' Federation and our state and Territory counterparts to establish a nationally consistent suite of tests, based on forensic testing requirements. that landholders should insist upon as part of their negotiations regarding access agreements. We would also like to see a standardised approach to the radius within which companies will provide testing. Currently some companies offer testing within a 2km radius however we submit that as a matter of best practice this should be expanded to 10km.

Recommendation 3:

That the NSW Government require all CSG companies to fund independent, forensic water testing for landholders and neighbouring landholders before, during and after exploration and/or extraction/production activities, conducted by a hydrogeologist of the landholder's choice.

2.1.4 Cumulative impacts

On a similar issue, NSW Farmers is extremely concerned by the absence of considered debate about the cumulative impacts of coal seam gas activities. This issue has also been raised by the National Water Commission. In the case of mining, in areas such as the Hunter Valley in NSW, it is clear that there has been scant regard for the cumulative impact of concentrated, intensive mining activities by multiple companies across the region when granting approvals. Without urgent intervention, this could potentially be replicated in other regions, both in terms of mining and coal seam gas.

For example, NSW Farmers recently co-hosted a community meeting in Moree where there are three energy companies active in the district, all seeking to explore for coal seam gas. Whilst each company publicly committed to anticipating only 'a handful' of



wells in the exploratory stage, this will increase exponentially if exploration moves to production, and the cumulative impacts in either phase are as of yet unknown.

In other areas, such as the Liverpool Plains, both coal and coal seam gas companies are active in the district, further exacerbated by a pipeline proposal that currently traverses private land rather than public land adjacent to the highway. In this sense, the community feels 'under siege', with mining, coal seam gas and pipeliners all competing for the community's land and water resources. Added to this is the potential for multiple pipelines, owned by different companies, to traverse the one district, rather than taking an 'infrastructure corridor' approach. These issues are further evidence of the need for upfront strategic planning and a comprehensive assessment of cumulative impacts.

The six biggest CSG companies in NSW are AGL, Dart, Eastern Star Gas (soon to be taken over by Santos), Metgasco, Planet Gas and Santos, operating across the Clarence-Moreton, Gunnedah and Sydney Basins (see Figure 2). The publicly stated reserves are listed in Table 1 below.

NSW Farmers acknowledges that the actual footprint of CSG activity is significantly less than the petroleum exploration licence (PEL) area. However, what is clear is that the combined activity of all six companies, across such a large proportion of NSW, will lead to exponential increases in the anticipated effects on ground and surface water systems, not to mention land and broader environmental measures. As such, it is critically important that future licence applications for both exploration and production have regard to the cumulative impacts of the proposed activity relative to related activity in surrounding areas.

Table 1: NSW Reserves and Resources (Pj)¹²

Company	1P	2P	3P	2C Resources	GIP
AGL*	NR	1062.0	1301.0	NR	NR
Dart**	NR	NR	NR	1400.0	3300.0
Eastern Star***	115.0	1520.0	2797.0	3515.0	NR.
Metgasco*	2.7	397.0	2239.0	1177.0	NR
Planet	NR	NR	NR	NR	NR
Santos*	NR	739.0	NR	NR	NR
Totals	117.7	3718	6337	6092	3300

*At 31Dec10 **Feb11 ***Dec09 NR=Not Reported

Recommendation 4:

That the NSW Government amend current assessment requirements such that cumulative impacts are assessed for all future CSG workplan approvals, exploration and production licence applications.

2.1.5 Groundwater information

As raised in its submission ¹³ to the Senate Standing Committees on Rural Affairs and Transport on the *Inquiry into Management of the Murray Darling Basin – impact of mining coal seam gas*, NSW Farmers is concerned at the paucity of groundwater data in NSW. There is increasing acknowledgment 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

PESA News Resources Online, Overview of CSG in Australia, http://www.pnronline.com.au/article.php/128/1076

http://www.nswfarmers.org.au/ data/assets/pdf file/0017/72116/11019 Senate Submission - CSG in the MDB.pdf



geological study. The most detailed study of hydrogeology is currently undertaken by mining/CSG/exploration companies, but NSW Farmers understands this data is treated as proprietary and is not currently made available to Government for planning and management purposes.

In December 2008, a national groundwater data and information workshop determined that a National Groundwater Information System (NGIS) was required. The National Water Commission has reported that this system will provide readily accessible information on aquifer boundaries and layers, aquifer characteristics, hydrogeological units, groundwater management areas and bore characteristics, and all of their interrelationships. The Water Division of the Australia Bureau of Meteorology (BoM) has the lead role in delivering the NGIS project and has been provided with significant funding in this regard. NSW Farmers understands that funding of \$80m has been provided to BoM over a period of five years for water information in general. NSW Farmers suggests that the NSW Government receive an urgent briefing on the applicability of this project to NSW, as well as the status and timeframe for completion, if it has not already done so. It should also seek to clarify whether the NGIS project has considered the immensely valuable hydrogeological information that is generated in association with mining and coal seam gas projects and whether action is being taken to obtain this data as a key input to the database.

Recommendation 5:

That the NSW Government seek an urgent briefing on the National Groundwater Information System and how it can contribute to implementation of the Strategic Regional Land Use Policy.

NSW Farmers believes that reforms to the planning and approval process for mining and coal seam gas industries in NSW and other jurisdictions must include a requirement from proponents to submit hydrogeological data collected in relation to their projects for inclusion in the NGIS and State groundwater databases. This would entail detailed requirements regarding data format and quality. Requiring proponents to fund or provide detail site specific hydrogeological data is the only way to systematically approach the regulation of aquifer disturbance and to establish a robust planning, monitoring, reporting and verification regime in relation approvals granted to extractive industry.

Proponents may resist such proposals, arguing that such data is commercial in confidence, since the hydrogeology affects the economic viability of projects. For example, underground coal mines must deal at great expense with the water that escapes into mine workings from aquifers damaged by the mining process. NSW Farmers believes that the commercial in confidence argument is tenuous and that interference with a critical strategic national resource demands the highest level of transparency. In short, if a company wishes to enter and damage an aquifer as part of its operations, 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.

Recommendation 6:

That the NSW Government require that proponents submit hydrogeological data collected in relation to their projects for inclusion in the National Groundwater Information System and NSW groundwater databases. This data should be available for public scrutiny.

The development of an NGIS is an essential element in better planning and regulation of Australia's natural resources and must be progressed at matter of highest priority. In relation to this project, it would be helpful for the NSW Government to call for:

- A detailed progress report;
- The introduction of a regulatory requirement for mining and coal seam gas proponents to provide data to the NGIS (this could be under the Water Act 2007); and



- · Confirmation that the NGIS will provide:
 - o Ground water mapping suitable for use in strategic planning processes;
 - A framework for collection and analysis of data collected in relation to environmental impact assessment and project approval for mining and coal seam gas development; and
 - Baseline and monitoring data needed for better regulation of aquifer interference resulting from mining and gas development.

Recommendation 7:

That the NSW Government call for a detailed progress report on the National Groundwater Information System (NGIS); the introduction of a regulatory requirement for mining and CSG proponents to provide data to the NGIS; and conformation that the NGIS will provide groundwater mapping suitable for the detailed requirements of the Strategic Regional Land Use Policy.

2.1.6 Test pilot production

In its member meetings across the state, NSW Farmers has emphasised the fact that CSG exploration can in fact include test pilot production. Many landholders assume 'exploration' will involve one test well, and some basic exploratory activities. Most landholders are unaware that unless otherwise specified in an access agreement, test pilot production is considered to be an 'exploration' activity.

NSW Farmers understands that test pilot production is performed to gather additional information on permeability, reservoir pressure, gas and water production and composition etc about gas-bearing coal seams. NSW Farmers understands that whilst well design for test pilot production follows the same principles as core hole design from a construction perspective, pilot wells are more closely spaced than production wells, with one, three or five wells generally constructed for each pilot test. As such, the volume of water and gas extracted is significantly greater than would be the case for a single well.

This obviously magnifies the expected effects on ground and surface water systems markedly, as the volume of co-produced water increases dramatically. NSW Farmers has welcomed the commitment of some companies to negotiate access agreements per well and per exploration phase, rather than for the entire process through to test pilot production, and would like this to be standard practice for all CSG companies.

Recommendation 8:

That the NSW Government amend the NSW Petroleum (Onshore) Act 1991 to require access agreements to be negotiated per core hole/well rather than for the entire exploration process through to test pilot production, unless requested otherwise by the landholder.



QUEENSLAND Lions Way (Prop. **NEW SOUTH** Clarence-Moreton PELA 130 Basin WALES Queensland Hunter Gas Pipeline (Proposed) Surat Basin PEL 434 stern Star Ga Gunnedah Basin Sydney Basin Wollongong **New South Wales** Selected Company Permits 100 50 **I**MBA kilometres FIGURE 01

Figure 2: Selected Petroleum Company Permits in NSW14

¹⁴ PESA News Resources Online, Overview of CSG in Australia, http://www.pnronline.com.au/article.php/128/1076



2.2 Effects related to the use of chemicals

The recent National Toxic Network's report on hydraulic fracturing (fracking) chemicals ¹⁵, which suggested that only 2 of the 23 most commonly used fracking chemicals had been tested by the National Industrial Chemicals Notification and Assessment Scheme (NICNAS), neither or which had been tested in-situ for the purposes of fracking, does little to address these concerns. Whilst CSG companies are required to list on their websites the chemicals intended to be used in fracking, this is meaningless if these chemicals have not been tested by the national regulator, nor the cumulative effect when they are mixed together, in the volumes expected to be used. Further, the report went on to state the Benzene, Toluene, Ethylbenzene and Xylene (a carcinogenic group of chemicals known collectively as BTEX) are found naturally within coal seams. While the NSW Government has prohibited CSG companies from introducing these chemicals during the drilling and fracking processes, the report concluded there is a risk that CSG production or exploration will cause naturally occurring BTEX chemicals to migrate into agricultural aquifers or into the air.

Recommendation 9:

That the NSW Government maintain a moratorium on fracking until all fracking chemicals have been tested by the national regulator (the National Industrial Chemicals Notification and Assessment Scheme), including simulated in-situ testing.

The inadequate level of testing is extremely concerning for those primary producers involved in food production, as – for example – cattle producers are required to list on their National Vendor Declaration any chemicals that the cattle may have come in contact with. If there is a leak and fracking chemicals leak into water that stock drinking water, the industry implications could be dire.

Recommendation 10:

That the NSW Government immediately institute a public register of fracking sites, including fracking chemicals and quantities used, to be kept up to date and readily available to the public.

2.3 Effects related to hydraulic fracturing

Community awareness of fracking has increased to a level that many landholders in regions earmarked for CSG exploration and/or production now understand the basics of the technique. However, what continues to be poorly understood, owing to the absence of a public register of fracking sites and fracking chemicals, is the chemicals used in fracking, and whether they have been subject to the same level of analysis and restriction as agricultural and veterinary chemicals.

In addition, NSW Farmers is concerned that current regulatory provisions pertaining to fracking are both inadequate, and incapable of being effectively policed given the inadequate levels of enforcement staff across the state. If the 'injection of water' is considered to be an aquifer interference activity, it is difficult to understand how the injection of sand and a myriad of chemicals (dependent on the geology and geomorphology) cannot be more effectively and efficiently regulated. In NSW, these issues are managed via the assessment and approval processes under either the Environmental Planning and Assessment Act 1979, the Mining Act 1992, the Petroleum (Onshore) Act 1991 or the Protection of the Environment Operations Act 1997.

¹⁵ http://ntn.org.au/wp-content/uploads/2011/07/NTN-CSG-Report-July-2011.pdf



However, NSW Farmers is concerned that the lack of enforcement personnel statewide is resulting in less than acceptable policing of this legislation.

Recommendation 11:

That the NSW Government immediately increase the number of enforcement and compliance staff within the Division of Mineral Resources to enable more timely responses to reported breaches of licence conditions, including those pertaining to chemicals.

2.4 Effect on Travelling Stock Reserves

NSW Farmers is committed to seeing the network of travelling stock reserves (TSRs) maintained throughout NSW. TSRs allow farmers to drove their livestock which is often used as a drought management technique used when feed levels become unsustainable on their properties. Anything which prevents livestock owners from using TSRs for this important purpose would be unacceptable to members of NSW Farmers. Because of their high agricultural value, NSW Farmers has formal policy seeking a prohibition on mining or coal seam gas licences over Travelling Stock Reserves.

CSG development in an area can also give rise to ancillary infrastructure such as pipelines outside the licence area. In these instances, NSW Farmers supports placement on public road reserves or public infrastructure corridors to avoid landholders being unnecessarily burdened during the construction phase of the pipeline and facing a potential diminution of land value.

Recommendation 12:

That the Petroleum (Onshore) Act 1991 be amended to prohibit the granting of licences over travelling stock reserves.

Recommendation 13:

That, to the extent possible, CSG-related infrastructure such as gas pipelines be placed in public infrastructure corridors rather than private farmland.

2.5 Nature and effectiveness of remediation required under the Act

The *Petroleum (Onshore) Act 1991* (the Act) does not, in itself, *require* remediation of the land. Part 6 of the Act contains provisions relating to protection of the environment. Variously these sections:

- Require the Minister to take into account flora, fauna, scenery, and historical and Aboriginal significance (s74)
- Allow the Minister to impose licence conditions to conserve or protect the above (s75)
- Allow the Minister to require rehabilitation of the land (s76)
- Allow the Minister to rehabilitate at the licence holder's expense (s78)
- Allow the Minister to direct a former licence holder to remove plant (s82)
- Allow the Minister to sell petroleum plant (s83)

It is clear based on this list that the Act delegates all environmental authority to the Minister for Resources and Energy, who then has discretion over the standard set by upfront approvals and licence conditions. The easiest method of strengthening the provisions of the Act is to legislate a broad requirement for rehabilitation of land (in addition to allowing further conditions under s76). Further, the option to remove petroleum plant at the end of production should be made to be a requirement to ensure there are no long term impacts on the agricultural productivity of the land. NSW Farmers submits that both these options should be pursued in order to enhance the environmental outcomes of the Act.



A notable deficiency in Part 6 of the Act relates to protection of water resources. There is currently no ability for the Minister to take into account or require protection or rehabilitation of water resources, which are crucial to the health of the surrounding environment, and of course agricultural production. We submit that the Divisions 1 and 2 of Part 6 of the Act both require amendment to stipulate water alongside other environmental concerns. This should also form part of the legislated requirement to rehabilitate in Recommendation 14.

The overriding concern with much of this is the innate conflict the Minister for Resources and Energy has in presiding over Part 6 of the Act. The main focus of the Minister's portfolio is, rightly so, the promotion and facilitation of the petroleum industry in NSW. It is at odds with that aim to seek to prevent the industry developing in areas of environmental sensitivity, or to impose the costs associated with rehabilitation. NSW Farmers would like to promote a dialogue on whether the responsibility for protection of the environment under the Act is best appropriately placed with the Minister for Resources and Energy, or whether the Minister for the Environment should take carriage the approvals, conditions and compliance functions of Part 6.

Many landholders also hold genuine concerns about their ability to seek enforcement of rehabilitation where the licence holder has been wound up or becomes insolvent. We recognise that the Division of Resources and Energy collects a security deposit for this purpose, but where the damage involves permanent damage to underground water the amount available will be insufficient to meet the cost of making good. NSW Farmers has formal policy to seek a requirement that licence holders take out an environmental insurance policy which notes the landholder as an interested party. This is one method we recommend the Committee explore in looking at ways to secure the interests of landholders.

Recommendation 14:

That Part 6 of the Petroleum (Onshore) Act 1991 be amended to require licence holders to rehabilitate land back to its original condition at the end of a petroleum tenure.

Recommendation 15:

That s82 of the Petroleum (Onshore) Act 1991 be amended to require, rather than allow, removal of petroleum plant at the cessation of production.

Recommendation 16:

That, as part of its inquiry, General Purpose Standing Committee No. 5 consider whether the Minister for Resources and Energy is the appropriate minister to oversee protection of the environment under Part 6 of the Petroleum (Onshore) Act 1991.

Recommendation 17:

That a standard condition be introduced which requires licence holders to maintain environmental insurance in favour of landholders and their land.



3. ECONOMIC AND SOCIAL IMPLICATIONS

3.1 Legal rights of property owners

3.1.1 Ownership of petroleum resources

Historically in Australia, landholders own their land to a sufficient depth to allow reasonable use – including minerals unless they have been specifically reserved by the Crown. The ownership of minerals in NSW is a convoluted area of law which has seen successive governments grant, reserve, acquire, re-vest and on-sell the rights to various minerals associated with land titles over time. The end result has been that the state government now holds the rights to a majority of minerals in NSW with a small proportion remaining in private hands.

Ownership of petroleum (including CSG) is more straightforward; it remained the property of the landholder until it was declared to be property of the Crown under the *Petroleum Act 1955* (NSW), the terms of which prevented any claim to compensation. Similar legislation has been passed in all Australian jurisdictions except the Australian Capital Territory. Recognising that CSG was expropriated from landholders by the Cahill Government in 1955 is of historical importance, and relevant to the resentment many farmers hold toward the legal framework which allows CSG companies to enter their land without permission.

3.1.2 The NSW land access framework

Permission to explore for and extract CSG in NSW is granted by the Minister for Resources and Energy under the *Petroleum (Onshore) Act 1991* (NSW) (the Act). s69C of the Act provides that prospecting operations cannot occur unless there is an access arrangement in place with the landholder. The Act allows this arrangement to be either agreed between the parties, or failing that determined by an arbitrator. At arbitration, the role of the arbitrator is to set the terms on which access will be granted rather than decide whether access *should* be granted. The process which leads to access is outlined in Figure 3 below.

This guarantee of access undermines the landholder's ability to negotiate equitable compensation for interference with his or her business. It is unreasonable to expect CSG companies to compensate fairly or take all possible steps to maintain positive relations with landholders when the Act ensures that the concerns of the landholder are secondary to the company's right of access. This is a disempowering process for landholders to endure and is responsible for a great deal of the present community angst around CSG.

Many companies realise that guaranteed access is not in their best interests and at least two companies, Santos and Eastern Star Gas, have made public commitments not to enforce their access rights where they are not welcome by the landholder.¹⁷ In Western Australia, s29 of the *Mining Act 1978* (WA) requires that the landholder's written permission be obtained prior to access to land used for 'cultivation purposes' – defined as including any cropping or grazing areas. While this gives the landholder the right to reject access, in practice it simply puts the onus on the licence holder company to ensure they have the support of the community before proceeding. The effect on the CSG industry would be that it must invest more time in addressing the detailed concerns of landholders, and more money on paying a commercial rate for the right of way over a

¹⁶ Wade v NSW Rutile Mining Co Pty Limited (1969) 121 CLR 177

¹⁷ See transcripts of the Senate Inquiry into the Management of the Murray Darling Basin System http://www.aph.gov.au/hansard/senate/commttee/s208.pdf



farmer's land. WA Premier Colin Barnett has advocated in favour of the framework in his state saying "generally you get negotiated outcomes between miners and farmers". 18

Landholder may Negotiation of Agreement be given notice of arrangement by intention to gain agreement access - s69E(1) s69E(3) No agreement after 28 days Notice to appoint Determination agreed arbitrator -Arbitration - s69H Agreement s69F on arbitrator No agreement after 28 days Appeal to the Land and Environment Appointment of Determination Court - s69R arbitrator by Director-General - s69G

Figure 3: Pathway to land access

NSW Farmers believes that amending the Act to give farmers the ability to refuse access is a prudent step toward relieving the tension around land access. Rather than a substantial change to the way resources are regulated, this would simply be a legislated requirement for all companies to meet the standard being set by Santos and Eastern Star Gas.

Recommendation 18:

That the Petroleum (Onshore) Act 1991 be amended to allow farmers to refuse access to CSG companies.

3.1.3 Access to legal advice

NSW Farmers holds a firm view that farmers should not be required to enter access agreements without having the benefit of independent legal advice on the effect of the document. Access agreements need to cover a range of important and technical issues such as liability, occupational health and safety, dispute resolution, the rights of third parties and the structure of compensation. Farm managers are busy people who cannot be expected to understand these issues in any detail. It is also unjust to ask that they meet their own costs in obtaining advice about a document they are essentially forced to sign.

The Act goes some way towards remedying this issue with s69D(2A) requiring that the licence holder pay all reasonable legal costs the landholder incurs in obtaining initial advice on the agreement. There is some confusion and concern about the meaning of 'initial' in this section. While most companies will ignore this term and pay any reasonable expenses, some companies have used this to restrict their liability to the farmer's first consultation, which does not cover the cost of their lawyer reviewing the document and providing their advice. NSW Farmers submits that the word 'initial' should be removed from this section to ensure landholders are not out of pocket for the cost of protecting their legal position.

¹⁸ http://www.theaustralian.com.au/national-affairs/wa-premier-confident-coal-seam-gas-row-will-be-resolved-in-time/story-fn59niix-1226114830311.



Also relevant to this area are the complex tax implications associated with transactions between landholders and CSG companies. During the course of CSG exploration and production landholders will receive compensation, grant easements and grant leases – all of which have specific repercussions for both income and capital gains tax. There is currently no provision in the Act which requires the tenure holder to reimburse landholders for the increased expense of their tax advice. Many rural tax professionals may not have extensive experience in accounting for this sort of statutory compensation or easements which can lead to a sizeable increase to their accountant's bill. This is further confused when it comes to ancillary infrastructure such as pipelines which can see easements compulsorily acquired under the *Pipelines Act 1967* (which has a different raft of tax implications). NSW Farmers submits that consideration should be given to amending both the Act and the *Pipelines Act 1967* to ensure landholders are reimbursed for professional tax advice relating to their dealings with CSG companies.

Recommendation 19:

That the word 'initial' be removed from s69D(2A) of the Petroleum (Onshore) Act 1991 to ensure that landholders are reimbursed for the expense of obtaining legal advice.

Recommendation 20:

That the Petroleum (Onshore) Act 1991 and Pipelines Act 1967 be amended to ensure that landholders are reimbursed for the expense of obtaining tax advice in relation to their dealings with CSG companies.

3.1.4 Compensable loss

The circumstances which give rise to compensation under the Act are extremely limited and do not represent the true cost to the landholder of coal seam gas exploration and production. The categories of loss which the court is directed to grant compensation for under s109 of the Act are essentially limited to damage to the surface of the land. There is no direction to pay compensation for damage to water resources, to reimburse landholders for the significant amount of time they may have to spend dealing with CSG companies or the diminished value of their land. The first of these is of major concern to NSW Farmers. The absence of clear liability under the Act to compensate farmers where there is a change to the quantity or quality of their water resources following interference by CSG companies is a serious deficiency. The demonstrated risks associated with CSG exploration and production mean that even where a stringent regulatory framework is in place, there is still some potential for damage. In the event that damage occurs, landholders ought to have the clearly defined right under the Act to seek compensation to restore them to their original position.

NSW Farmers believes that to ensure equity in the relationship between landholders and CSG companies, compensation relating to water should be payable on a strict liability basis. Meaning that where a reduction in the quantity or quality of the water is detected by the landholder's independent water testing scheme (discussed above), the CSG company operating within that groundwater system will become immediately liable. The onus will then be on the company to prove that it was not responsible for the damage. This system recognises the disparity in resources and knowledge between landholders and the CSG companies, which otherwise could lead to landholders being unable to conclusively attribute the damage to the holder of a petroleum tenure. Strict liability already forms part of the Queensland framework under 'make good agreements' required by Part 5 of the Water Act 2000 (QLD). These agreements set the trigger points upon which companies become liable to landholders for damage to their water resources. While NSW Farmers advocates the precautionary principle in respect of CSG approvals which provides greater protection than the Queensland system, it is still prudent to have in place a compensatory mechanism with real prospects of seeing landholders paid for any loss suffered.



To ensure there is appropriate recompense for farmers affected by CSG, Part 11 of the Act should be replaced with a broader, strict liability provision which guarantees compensation to landholders where CSG operations cause damage to landholders, their land and water resources, or their businesses.

Recommendation 21:

That Part 11 of the Petroleum (Onshore) Act 1991 be amended to impose a broader liability which includes water and time loss compensation, with water being on a strict liability basis.

3,1,5 Community engagement

It is impossible to consider the economic and social implications of CSG activities without discussing past, current and preferred community engagement strategies.

Member inquiries regarding coal seam gas, as well as mining, have increased exponentially in the last 12 months, right across the state. In the majority of instances, these inquiries centre around access agreements, and what landholders' rights and obligations are when approached by a mining/energy/exploration company seeking access. This is indicative of two enormously troubling issues: firstly that this information is not readily available from Government sources; and secondly, that landholders' first knowledge of or experience with exploration in their district is when approached via written correspondence (less common) or in person (most common) – indicating poor communication of the granting of exploration licences and poor community engagement on the part of mining/energy/exploration companies. This is exacerbated by the limited capacity of Departmental staff to deliver impartial advice in the regions, owing to their compromised position as being jointly responsible for advocating for and seeking investment in the mining/CSG sector, as well as responsible for regulating it. Some landholders have viewed this compromised position as akin to 'putting Dracula in charge of the blood bank'.

In the absence of readily-available, easily-understood information for landholders about their rights and obligations when negotiating access agreements, NSW Farmers Association developed an information sheet 19 in late 2010, which explains in simple terms what the process *should* be and the types of issues that landholders should be including in their access agreements. This document has been very well received by members and the general public alike, as even city-based communities (such as St Peters in Sydney, who have recently – and without any warning – been thrown into the CSG debate) are unaware of the 'basics' when negotiating access agreements, given that the industry is relatively new in NSW, and provision of information from a landholder perspective has been so poor.

As raised above, it is of enormous concern that mining/energy/exploration companies are not legally required to inform landholders of their right to seek legal advice when negotiating access agreements, nor the legislative requirement that companies can be charged for 'initial' legal advice pertaining to the agreement. This is required in other contract law and it is unreasonable to expect landholders – rural or otherwise – who have no experience with this issue, to understand the complexities of current legislation pertaining to mining and coal seam gas, particularly if these properties straddle state/Territory borders. NSW Farmers is working closely with the legal profession in NSW to address this issue, amongst many others pertaining to mining and coal seam gas activities in NSW.

Without a fully-informed community (including the legal community) regarding the rights and obligations of landholders when negotiating access agreements, the following types of issues can emerge:

¹⁹ http://www.nswfarmers.org.au/__data/assets/pdf_file/0020/68042/mining_flyer_25_Nov_2010.pdf



Confidentiality clauses: A NSW Farmers member from the south west of the State was in the process of purchasing a neighbouring property in order to expand his business. He was in the final stages of negotiations (following conveyancing etc), when he observed a drill-rig on the property he was intending to purchase. After last-minute negotiations, it emerged there was an access agreement over the property, complete with a confidentiality clause, which had prevented it from being identified via 'standard' searches. The sale did not proceed.

<u>Term of the agreement</u>: NSW Farmers has reviewed multiple draft access agreements with open-ended terms ie the agreement is proposed to last for the life of the exploration agreement. In the case of coal seam gas, it is generally poorly understood that exploration can include test pilot production, so whilst the landholder may assume the agreement is limited to one or two core samples, it may actually include test pilot production and multiple wells and water storage and treatment facilities, which may include evaporation ponds.

Biosecurity and OH&S requirements: NSW Farmers has reviewed multiple draft access agreements with scant regard for primary producers' stringent biosecurity and occupational health and safety requirements. Member in the central-west, dealing with a particular mining company engaging international expertise and infrastructure for their exploration activities, were unable to confirm how many explorers to be on the property for exploration purposes would be English-speaking, and thereby how landholders could 'induct' the property visitors from an occupational health and safety perspective (even issues as simple as identifying electric fences), as well as their biosecurity and weeds/pest animals requirements (eg washing down vehicles, wearing protective covered shoes etc).

<u>Exploration vs production:</u> given the nature of coal seam gas exploration activities, a far-reaching underground gas reserve may be identified without having to physically explore all of the properties above it. This may mean that landholders are approached for access for CSG production without having ever signed an access agreement for exploration. The legal consequences of this scenario are not yet well understood.

<u>Early engagement:</u> NSW Farmers has seen an example where Planet Gas, operating in the Bellata area, issued an initial letter to landholders which directly threatened to enforce its access rights in court where landholders did not cooperate. This sort of intimidation needs to be urgently rectified to prevent unnecessary distress in these communities.

These are some of the many, many issues that have arisen in recent months alone, indicating the strong need for a targeted campaign aimed at educating landholders and communities more broadly about their rights and obligations.

Recommendation 22:

That the NSW Government fund a targeted campaign aimed at educating landholders and communities more broadly about their rights and obligations regarding mineral, coal and coal seam gas exploration, extraction and production.

NSW Farmers has been attempting to fill this gap by co-hosting community meetings with mining/energy/gas companies in regions where companies are new to the area, in an attempt to educate communities from the earliest opportunity about the company's intentions in the region (via a presentation from the company), and what landholders should be aware of and asking for (via a presentation from NSW Farmers). This approach has been extremely well received by communities where meetings have taken



place and often minimises a great deal of the angst so often experienced by communities who feel they are 'playing catch-up' after a handful of landholders communicate that they have been individually contacted by companies seeking access.

Given the significant expense incurred by NSW Farmers in delivering a public good which is essential to ensure understanding of government policy - essentially doing Government's job for it by delivering factual information on rights and obligations, as well as exploration licence boundaries, etc, NSW Farmers has approached the NSW Government seeking funding for a Departmental Mining and Coals Seam Gas Liaison Officer, based at NSW Farmers. It should be noted that AgForce Queensland has been provided with funding of \$3.2 million to fulfil a similar role for the Surat Basin alone, delivering workshops and factual information on negotiating access agreements and landholder rights and obligations. NSW Farmers has sought only a fraction of this, seeking funding of \$150 000 per annum for a singly mining liaison officer. The funding would enable NSW Farmers to:

- 1. Facilitate local meetings to give landholder an understanding of their rights and responsibilities when dealing with exploration, mining and energy companies
- 2. Encourage exploration, mining and energy companies to engage local landholders through community meetings, minimising the potential for expensive litigation procedures; and
- 3. Increase communication and understanding between Government and industry, providing a more efficient medium for the public and Government to express their concerns and have them addressed.

The liaison officer would handle incoming inquiries from landholders who need information about mining and coal seam gas issues; develop region-specific and commodity-specific materials to distribute to landholders who require detailed information about mining and coal seam gas; and develop industry partnerships to enhance the efficiency and effectiveness of Government and industry communication.

Recommendation 23:

That the NSW Government fund the appointment of a Departmental Mining and Coal Seam Gas Liaison Officer within NSW Farmers.

The 'negotiation' tactics employed by some mining/CSG/exploration companies are highly questionable at best, and at worst, misleading. NSW Farmers has had a number of landholders report explorers arriving at their property unannounced, at times of extreme inconvenience (eg when trying to get children up to the main road to catch the school bus), who downplay the exploration methods and intensity of exploration (eg indicating that there will be 'a few' core holes, which later emerges to be several hundred core holes), and downplay the significance of the access agreement, and do not communicate that legal advice can be sought (and the costs of 'initial' advice recovered). Whilst the Act allows prior written advice, NSW Farmers believes that this should be mandatory and should include advice to the landholder to receive legal advice on the proposed access agreement.

One of the primary reasons that NSW Farmers has expended so much capital (both financial and human resources), is that currently in NSW, this is the only point at which landholders have any potential influence in a process that has been imposed upon them. Given that they have historically had no opportunity to provide feedback on a proposed exploration activity, nor an opportunity to influence the bounds of restrictions on a mining/CSG/exploration company, the access agreement has been the only opportunity for landholders to negotiate what should be an as-of-right.

One of the issues that comes up at every meeting that NSW Farmers hosts, no matter how large the community, and regardless of its location, is the feeling of community disempowerment. Communities feel that mining and coal seam gas activities are being



imposed upon the community regardless of the community's concerns or otherwise. Landholders and town-based community members within the broader Petroleum Exploration Licence or Exploration Licence area, but outside of the properties targeted for access agreements, feel that they have no right to negotiate (eg because they are not negotiating an access agreement); that their concerns (eg about potential impacts on town drinking water or impacts on the local rate base, impacts on local road and rail infrastructure etc) are not heard or understood; and that they are 'innocent bystanders' in a hostile situation. Whilst some communities have established community reference groups to regularly meet with mining/CSG/exploration companies and inform develop a community response to the proposed activities, they are still – legally – left in limbo. All levels of Government must work together on this issue.

Recommendation 24:

That the NSW Government expedite the development and implementation of community engagement guidelines such that communities are fully informed of proposed exploration activities affecting their local area; have access to property-scale mapping highlighting any relevant exploration or mining licences; have a central point of contact for companies to engage with the community; and meaningful timeframes for having input and responding to company information.

3.2 Property values

Farmers in NSW rely on the value of their property as superannuation – knowing that they can fund their retirement by either selling the asset or being supported by the next generation who takes it on. Certainty for the current and next generations about the future of their property and their region is a valuable asset as increasingly ageing farmers plan retirement and intergenerational transfers. Not only does the insecurity associated with CSG exploration create personal stress for the landholders affected, it also acts as a deterrent for potential buyers of affected properties. While we are not aware of formal studies conducted in this area, there is a great deal of anecdotal evidence from property agents operating in affected markets in Queensland. There is clear need for an independent audit of the effect the CSG industry is having on land values in NSW. NSW Farmers submits that the NSW Valuer General should urgently commission work in this area to assist landholders and CSG companies in assessing the compensable loss resulting.

Given concerns about the potential for land devaluation, we submit that it is prudent for an independent valuation to be conducted prior to CSG operations being conducted on any land. This would provide a baseline to help landholders seek compensation where devaluation occurs. Reimbursement for the landholder's costs in obtaining an independent valuation should be mandated under the Act. We note reasonable valuation costs are currently available to Queensland landholders under s532 of Queensland's *Petroleum and Gas (Production and Safety) Act 2004* (QLD).

An important issue relevant to the effect of CSG production on land values is the potential for agreements struck with one landholder may not benefit successive landholders. This is because agreements are struck directly with the landholder and do not necessarily run with the title of the land. NSW Farmers submits that, particularly in the production phase, and agreement on compensation should be attached to the title of the land to ensure the benefit of that compensation is guaranteed to potential purchasers, rather than purchasers having to risk that a similar deal will not be available

²⁰ See http://qcl.farmonline.com.au/news/state/agribusiness-and-general/general/csg-ripples-felt-in-rural-property/2085883.aspx?storypage=0



when they seek to negotiate. This is currently the case in Queensland in respect of the 'make good' agreements discussed above.

Recommendation 25:

That the NSW Valuer General urgently commission an independent study into the impacts of CSG exploration and production on property values.

Recommendation 26:

That the Petroleum (Onshore) Act 1991 be amended to provide for reimbursement of landholders' independent valuation costs prior to conducting exploration.

Recommendation 27:

That the Petroleum (Onshore) Act 1991 be amended to ensure that agreements setting out compensation during CSG production run with the title of land.

3.3 Food security and agricultural productivity

3.3.1 The food security landscape

As population and economic growth continue, upward pressure will be placed on commodity demand and in turn food prices. The world's population is forecast to grow 38 per cent by 2050, from 6.8 billion to 9.4 billion and over the next forty years, ²¹ Australia is potentially poised to have the fastest population growth of the industrialised world, at 65 per cent, should it grow to 35 million by 2049.

Global agricultural production must increase 70 percent by 2050 to feed an additional 2.3 billion as the population become more urbanised and wealthier. Ninety per cent of this required production growth is projected to come from increased yields and cropping intensity, and only 10 percent from the expansion of arable land. Specifically, the Food and Agriculture Organisation of the United Nations has stated that annual cereal production will need to increase 30 percent to 3 billion tonnes from 2.1 billion tonnes and annual meat production will need to increase 74 percent to 470 million tonnes from 270 million tonnes. Consequently, national food production and efficiency gains in the supply chain will need to dramatically increase if we are to feed a burgeoning population with clean and affordable food.

Globally, food security is central to poverty reduction, public health, sustainable economic growth, world peace and geopolitical security. Many Australians, however, believe that a food crisis will not directly affect them as we export 60 percent of all farm produce and supply close to 93 per cent of domestically consumed food. Furthermore, unlike many European countries, Australia has only limited experiences of living through food shortages and consequently has not implemented policies based upon ensuring a government mandated safety net. Despite this perception, food security has the potential to be an issue in Australia, of the same magnitude as water and fuel security, particularly if the nation relinquishes its food sovereignty.

For instance, the Prime Minister's Science, Engineering and Innovation Council has warned that while Australia may presently have an abundance of food, the future supply may indeed be vulnerable²⁴. The report notes that, if Australia's population continues to grow to 35 to 40 million and climate change continues unabated, food imports could soon outgrow exports. It continued on to state that productivity in the sector has

24 Ibid

²¹ Prime Minister's Science, Engineering and Innovation Council (2010) Food Security, 20.

²² Food and Agriculture Organisation of the United Nations (2009) *How to Feed the World in 2050*, 2.

²³ Ibid



plateaued over the past decade, while risk of diseases, food transport and storage concerns are also weighing down the industry.

It goes without saying that land is a fundamental input for agricultural production. The availability of land is continuing to diminish with the expansion of our cities and towns, and also through conflict with other industries - notably the mining and petroleum industries. Looking ahead, there will be new pressures on the availability of arable farm land as we look to locate renewable energy infrastructure and plant non-food producing vegetation for carbon offsets.

This ever increasing pressure means that we must be strategic in the way we allocate land so it is used to maximise our social, economic and environmental outcomes, and allows us to meet the global food task.

The area currently under exploration in NSW for coal seam gas includes some of our most productive agricultural land. Given the food security challenges ahead this land is going to be of huge significance in coming decades.

3.3.2 Can coal seam gas and agriculture co-exist?

There are two aspects to the question of co-existence for CSG and agriculture; these are the effect of the industry on land, and the effect on water.

The physical infrastructure associated with coal seam gas exploration and extraction is incompatible with modern farming practices. Farmers use a range of precision cropping techniques, including strict bio-security protocols, controlled traffic to reduce soil compaction, GPS guidance and variable seed and fertiliser rates – all of which cannot operate productively within the tight network of access roads, pipelines, signs, well heads, water treatment ponds, compressor stations and reverse osmosis units necessary for CSG extraction. Confining farming to the "holes in the spider's web" would drastically reduce the productivity and profitability of the enterprise and potentially make cropping on that land unviable. For this reason NSW Farmers submits that using current CSG practices and technology, the industry cannot co-exist with cropping. While the industry claims that the cumulative footprint of this infrastructure compares favourably to open cut mining, the real footprint is the entirety of the land which can no longer be used effectively for cropping.

The potential for co-existence with grazing is better than that of cropping. Graziers are able to better utilise the remaining pockets of land, however this presents its own unique challenges. Australia is one of the largest red meat exporters in the world and our livestock producers rely heavily on overseas markets. There are strict regulations around exposure to chemicals and other materials which producers must comply with in order to sell their stock into the food chain either domestically or overseas. These regulations are aimed at ensuring that there are no harmful residues present in red meat which enters the food chain. Overseas markets routinely test for harmful residues in our meat exports and if residues are detected, Australian product can be immediately excluded from markets around the world which would devastate the industry. Developing industrial sites alongside grazing enterprises exposes livestock to a host of foreign chemicals which can potentially lead to food safety issues. As discussed above there are a number of chemicals used in the drilling and hydraulic fracturing processes, in addition to potential contamination from pipelines and other infrastructure. The recent incident of lead contamination in cattle caused by a public water main in the Hunter Valley is an example of the issues which can arise.²⁵ The increased traffic of service vehicles and staff also increases the spread of weeds and diseases which can have serious productivity impacts.

General Purpose Standing Committee No. 5 – Inquiry into Coal Seam Gas Contact: Brianna Casey, Senior Policy Manager

²⁵ http://www.abc.net.au/news/2011-09-04/greens-say-water-authority-knew-of-contamination/2869598



The issue with co-existence between the livestock and CSG industries is not whether sheep and cattle can physically live in the same paddock as a CSG well, which is undisputedly the case. It is around whether the farmer can continue to guarantee the health and quality of his livestock when he ceases to be the only one controlling the conditions they're raised in.

Aside from the effect on land, the unknown impact of the CSG industry on water is the other factor in whether agriculture and CSG can co-exist. This is discussed in detail earlier in this submission, but from a co-existence perspective it is important to realise that no agricultural system can operate without water. Many of the areas currently under exploration for CSG have underground aquifer systems capable of supplying enough water to irrigate crops, which is geologically rare, especially in Australia. Agricultural water usage is heavily regulated and a great deal of effort is being expended to ensure each landholder's take is sustainable in the long term. This is necessary because the rate of recharge varies dramatically for each aquifer system, which also means that for some farmers a small drop in the water table can spell the difference between being able to irrigate, run livestock, have access to domestic water or not. The significance of underground water to agriculture cannot be overstated which is why unless there is certainty around the impacts of CSG exploration and production, neither should be allowed to proceed in areas which rely on groundwater.

3.4 Regional development and investment

NSW Farmers is a strong advocate of sustainable growth and economic prosperity for regional NSW. While we champion new opportunities for jobs and industry in the regions, this cannot be at the expense of the environment, food security and the wishes of local communities. While our concerns on those points are covered elsewhere in this submission, it is also important to put the potential of the NSW CSG industry in perspective. Currently the CSG industry claims to employ 5,000 people in Queensland, with employment expected to peak at 18,000. Given NSW has only 5% of Australia's total available CSG resources and current plans indicate a preference for processing, power generation and export closer to the major Queensland supplies, we could reasonably expect to have less than 5%, or 900 of those jobs, based here in NSW.

The limited number of employees is reflected in the flow on effects for communities. Unlike other extractive industries, CSG extraction involves a short labour-intensive construction period while wells and infrastructure are constructed, followed by 35 years of intermittent well checks which can be conducted by a non-local workforce. In order for there to be a true benefit to the community the workforce needs to be based in the community, particularly given the likely affects the industry will have on farm productivity which may force farmers and their families to take up opportunities elsewhere.

NSW Farmers remains concerned by the absence of socio-economic analysis pertaining to coal seam gas activities at a local, regional, statewide and national level. NSW Farmers is keen to explore with the Committee the notion of community benchmarking, whereby a set of 'values' are identified by a community, then benchmarked and monitored over the life of a CSG project. For example, a community may identify the number of school teachers, number of school buses, range of health services, number of active local football clubs, participation in community events, number of cafes, etc as important 'measures of community health'. If CSG activity led a family or a number of farming families to leave the district, this may see five or six children lost from a small school, which may see the number of school teachers reduced, and a local bus run dropped. Flow-on effects such as these are currently poorly understood and NSW Farmers believes there is a strong argument for this analysis to be undertaken as a matter of urgency. There may indeed be positive community impacts of mining/CSG

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http://www.wewantcsg.com.au/coal-seam-gas/economic-benefits

²⁷ Ch 4, Australian Energy Resource Assessment, Geoscience Australia and ABARE 2010



activities at the local and regional level, and by independently analysing and reporting these benefits, the local community, and communities earmarked for future development, will at least have a point of reference as part of the broader debate.

Recommendation 28:

That independent analysis be undertaken on the socio-economic impacts of coal seam gas development.

Recommendation 29:

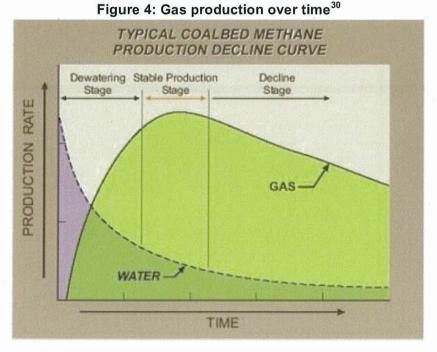
That community benchmarking be introduced as part of the planning process for regions affected by or earmarked for CSG development.

3.5 Royalties

The royalty rate for petroleum (including CSG) in NSW is nil for the first 5 years of commercial production, before rising to 6% in the sixth year and increasing by 1% each year to reach 10% in the tenth year and all following years.²⁸ Figure 4 demonstrates that CSG production peaks within 5 years, which will have a serious impact on the royalties recoverable for CSG production in NSW.

Again, it is important to recognise that because of the reduced royalty rate payable in NSW, and the comparative potential of the NSW industry compared to QLD - which has 95% of CSG reserves - that the figures quoted by the CSG industry about the benefit to QLD Government revenue will not be reflected in NSW.²⁹

NSW Farmers supports the allocation of royalty revenue back into regional NSW, this is an essential investment in the infrastructure and communities which generate this income.



²⁸ See http://www.dpi.nsw.gov.au/minerals/resources/royalty#Petroleum-royalties

²⁹ APPEA claim that the industry will soon be paying \$850 million p.a. to the QLD Government, see http://www.wewantcsg.com.au/coal-seam-gas/economic-benefits 30 Helmuth (2008)



Recommendation 30:

That a percentage of all mining and coal seam gas royalties be quarantined for expenditure in regional NSW.

3.6 Considerations for local government and planning

3.6.1 Local government

Under the amendments to the *Environmental Planning and Assessment Act* 1979 (NSW) passed this year, most coal seam gas development will be considered under the state significant development provisions in Part 5.1. The draft *State Environmental Planning Policy (State and Regional Development)* 2011, released for public consultation on 11 August 2011 stipulated that all petroleum production and exploration development would be classified as state significant, except exploration involving;

"...a set of 5 or fewer wells that is more than 3 kilometres from any other petroleum well (other than an abandoned petroleum well) in the same petroleum title."

The effect of state significant classification is that planning decisions are made by the Department of Planning and Infrastructure, or the Planning Assessment Commission (depending on how 'controversial' the development is). This means local councils will generally be excluded from the decision making process. NSW Farmers provided feedback to the draft SEPP seeking to have the exception quoted above removed on the grounds that this would describe a great deal of exploration which still requires careful scrutiny to determine environmental impacts. While ideally we would prefer the decision making power to lie with local communities through their councils, it is important that they be well enough resourced to assess complex applications of this nature. Our understanding is that currently this isn't the case.

3.6.2 Strategic Regional Land Use Plans

NSW Farmers is assisting the NSW Government with implementation of its Strategic Regional Land Use Policy, which aims to preserve strategic agricultural lands from mining and coal seam gas development.³¹ This will involve the development of Strategic Regional Land Use Plans. NSW Farmers is advocating for a 'traffic light approach', whereby there would be three spatially defined zones:

- a "red light" zone strategic agricultural land where mining and CSG development would be prohibited;
- an "orange light" zone a buffer area adjacent to strategic agricultural land which will need to be assessed as to its strategic importance prior to exploration licences being approved; and,
- a "green light" zone subject to increased protections for landholders and their water outlined in this submission and the NSW Farmers Framework for Sustainable Development (Attachment 1).

The irreversible damage to agricultural land and water resources which can be caused by the mining and coal seam gas industries, means that getting this process correct from the outset is crucial. Lines on maps are also controversial and the method used would need to bring objectivity and transparency to the process of deciding where such lines will fall.

The process committed to by the NSW Government will require extensive data collection and the development of a model to assess the various criteria and generate spatial boundaries for adoption in state planning legislation. To make informed decisions about

³¹ A copy of the policy is available at http://grip.org.au/documents/doc-47-strategic-regional-land-use-policy---document.pdf



those boundaries, state planning authorities must have access to the best available spatial data for a range of criteria including:

- soil quality;
- water (quantity, quality, reliability and vulnerability to disturbance);
- agricultural land use (current and possible future):
- value of production (with scenarios for a range of future value projections);
- farm entities and ancillary entities (using cluster analysis):
- social values:
- biodiversity and environmental values; and,
- infrastructure (transport, storage, processing).

Currently this information is collected by various state and federal authorities and is not always made available to state planning agencies, or collected under a standardised methodology which allows various data sets to be integrated. Complicating the situation is the fact that some of this data is collected by corporations who are not always compelled to release the data to government, citing 'commercial in confidence' concerns (see Recommendation 6).

Legal advice obtained by NSW Farmers recommends that to ensure the Regional Land Use Plans are binding on the consent authority, they should be issued as a new type of planning instrument under Part 3 of the Environmental Planning and Assessment Act 1979 which ensures that a Regional Land Use Plan will prevail over a SEPP in the case of inconsistency.

Recommendation 31:

That the NSW Government identify and spatially define strategic agricultural land and prohibit mining and coal seam gas on those areas.

3.6.3 Pipelines

The development of a CSG industry in NSW will see a marked increase in the number of pipelines required to transfer the gas. The installation of pipelines on farm land has caused a great deal of angst among communities concerned about the potential for leaks to occur, particularly where construction occurs on black soil plains prone to movement.

North east NSW where most of the current CSG exploration is occurring currently is also home to the Hunter-Mooki Thrust, a fault line which runs from Branxton to Quirindi.32 This in combination with the black self-mulching soils on the Liverpool Plains means

there is constant around movement in the area. understanding is that in the United States, pipelines are not placed in soils of this type.

In addition to safety issues there are also important concerns about the effect pipelines have on the environment. Figure 5 is an example of where a pipeline near Coolah has lead to serious erosion This occurs issues. because construction necessitates disturbance of the delicate soil



Figure 5: Pipeline induced erosion near Coolah, NSW

³² p130, The Geology of Australia, Johnson 2004



structure and plant cover which cannot be properly rehabilitated following construction. Significant rain events have seen a number of incidents like this occur, requiring substantial time and resources to rehabilitate the areas affected and leading to obvious safety concerns. The rehabilitation of the site in Figure 5 took three weeks and 3.5 tonnes of rock.

NSW Farmers has serious concerns about the pipelines industry's ability to operate safely and without damaging the environment in the areas required for transmission of CSG. We encourage the Committee to put a strong focus on pipelines in this inquiry to ensure they do not present a risk to safety, the environment or food security.



4. THE ROLE OF CSG IN MEETING ENERGY DEMAND

4.1 Nature and extent of CSG demand and supply

Gas consumption in Australia has grown 4 percent per annum over the last decade. This is expected to slow to 3.4 percent per annum out to 2030. Figure 5 demonstrates how production will increase at a rate far exceeding domestic consumption, leading to 70 percent of gas production being exported in 2029-30.

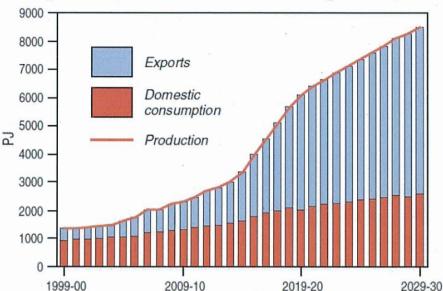


Figure 5: Outlook to 2030 for the Australian gas market³⁴

To meet this demand and contribute to export earnings, Australia has 122,100 petrajoules (PJ) of economically demonstrated resources (EDR) or conventional gas. This means that at current production rates, the amount of conventional gas which can be extracted at a profit will last another 63 years. By comparison, EDR for coal seam gas is 16,590 PJ, or 12% of total gas EDR. Unlike offshore reserves of conventional gas, the location of coal seam gas in NSW is fairly well understood as a by-product of government investment in coal exploration which limits the potential for future discoveries.

Of the total CSG EDR, NSW accounts for only 5%, or 887 PJ; with 67 PJ of that in the Sydney Basin, 298 PJ in the Clarence-Moreton Basin, 176 PJ in the Gloucester Basin, and 335 PJ in the Gunnedah Basin. As a percentage of Australia's total EDR gas, CSG in NSW represents only 0.7 percent.³⁶

Two conclusions can be drawn from this data. The first is that there is no imminent energy security risk in the Australian gas market. The second is that there is an evident lack of strategy around how these gas reserves are being developed.

Extraction of gas which will impact on agricultural productivity, rural communities and water resources should occur as a last resort, not when we have 63 years worth of conventional gas still available. NSW Farmers would support the NSW Government initiating a dialogue on the best way to utilise Australia's remaining gas resources, taking into account the effects on farm land, water and rural communities.

36 Ibid

³³ Ch 4, Australian Energy Resource Assessment, Geoscience Australia and ABARE 2010

³⁴ ABARE 2010

³⁵ Ibid



■ Conventional Gas ■ QLG CSG ■ NSW CSG

Figure 6: Total Australian EDR Gas

Recommendation 32:

That the NSW Government initiate a national dialogue on strategic use of the nation's gas resources aimed at limiting production on sensitive food producing areas.

4.2 Interaction with other legislation

4.2.1 The Pipelines Act 1967

Petroleum extraction requires a network of pipes to be laid on properties for the transmission of gas, waste water and treated water. Where these are contained on a single block of land, they are not subject to licensing under the *Pipelines Act 1967*. This means that there is no experienced authority responsible for the standard of pipeline construction, maintenance and decommissioning. While we do not support amendments to the *Pipelines Act 1967* which may apply to low pressure water pipelines farmers construct on their own land, it may be a worthwhile for the Committee to seek information on the sorts of standards being met, and whether there are risks of soil contamination, subsidence or swamping at the end of the pipeline's lifespan.

4.2.2 The Native Vegetation Act 2003

While not necessarily the focus of this review, the powers mining and CSG developments have to subvert the provisions of the *Native Vegetation Act* are a source of discontent for NSW Farmers. Many farmers in NSW find current restrictions on native vegetation management a significant impediment to their business, and environmental outcomes are not being maximised under the current property-by-property approach.

Because mining and CSG developments operate under state significant development legislation (previously Part 3A, soon to be Part 4.1 of the *Environmental Planning and Assessment Act 1979*), they are excluded from requiring authorisation under s12 of the *Native Vegetation Act*. The inequity in the way the framework operates may be worth the Committee's consideration, noting however that the Coalition Government is on record as saying it intends to review native vegetation regulation.