



Committee Secretary
Senate Select Committee on Unconventional Gas Mining
PO Box 6100
Parliament House
Canberra ACT 2600

14th March, 2016

To the Committee Secretary,

Re: Submission to the Unconventional Gas Mining Inquiry

The Wilderness Society Newcastle appreciates the opportunity to make a submission to the Senate Unconventional Gas Mining Inquiry.

After the tragic death of farmer, father and cherished community member, George Bender, we congratulate Senator Lazarus for initiating this inquiry and hope that it acts to prevent similar deaths from occurring across Australia.

We have addressed the terms of reference individually as per the adequacy of Australia's legislative, regulatory and policy framework for unconventional gas mining including coal seam gas (CSG) and shale gas mining, with reference to:

1. a national approach to the conduct of unconventional gas mining in Australia;

There are currently varying laws for CSG mining across Australia. In Victoria there is a moratorium on CSG due to more research being required into the impacts of unconventional gas on health, water and impact on landholder rights. In Queensland despite serious dewatering of aquifers the industry is pushing ahead at an alarming rate and in NSW the Government is still strongly advocating for this industry despite widespread community opposition and companies facing declining global gas prices.

Australia is the driest inhabited continent on earth and unconventional gas mining poses a serious risk to groundwater. The risks to water are not fully understood in regions where CSG is proposed and there is evidence of serious contamination and dewatering where CSG is occurring. Due to these impacts we call for an Australia-

wide moratorium on coal seam gas until the impacts to water, including large transboundary water resources such as the Great Artesian Basin and Murray Darling Basin as well as local aquifer systems such as the Tomago-Tomaree Groundwater supplies in Newcastle, NSW are understood. All of these examples listed are currently under great threat from CSG development.

In terms of the impacts of CSG on Matters of National Environmental Significance, the EPBC Act and Water Trigger goes some way in addressing these issues. Unfortunately the Federal Governments push for a 'one stop shop' approval system is eroding the ability for a proper assessment of federally listed threatened species and nationally significant heritage etc.

The EPBC Act 'water trigger' also requires expansion to ensure that all forms of Unconventional Gas extraction, for example shale and tight gas, are covered by it, as well as all coal and unconventional coal developments.

Federal legislation must also be expanded to ensure that the cumulative impacts from gas mining on nationally significant water resources, natural areas and cultural heritage sites are assessed, prevented and mitigated.

There has been no national approach to addressing the health impacts of coal seam gas. This includes the impacts from emissions for communities living within gas fields and the mental health impacts of land owners bullied by big CSG companies. This must be addressed immediately.

Similarly the social impacts on towns where the CSG boom and bust phenomena has occurred is poorly planned for and poorly understood. These impacts include creating a two-speed economy, housing shortages, drug and alcohol issues and finally towns left to pick up the pieces when the gas companies move on.

In addition to the above recommendations we support the finding of the report by the Australian Network of Environmental Defender's Offices, 2012, on the 'Nine national reforms to protect communities, food security, health, water, climate and biodiversity from the impacts of unsustainable coal and unconventional gas mining in Australia'. These are:

1. Protect agricultural land by strengthening the legislative force of National Food Plan and Australian Food Council
2. Improve air quality regulation by establishing a National Environment Protection Authority
3. Ensure consistent regulatory standards through a National Mining Policy Statement
4. Reform relevant export control laws
5. Protect water resources from impacts of coal and unconventional gas mining
6. Improve regulation of chemicals used in coal and unconventional gas mining
7. Improve biodiversity protections
8. Protect world heritage areas from impacts of coal and unconventional gas mining
9. Require comprehensive and accurate accounting of all emissions from coal and unconventional gas mining

2. *the health, social, business, agricultural, environmental, landholder and economic impacts of unconventional gas mining;*

Health Impacts

The potential for impacts on human health from the coal seam gas extraction and delivery system are many. In addition to land and water contamination issues, at each stage of production and delivery, tons of toxic volatile compounds, including benzene, toluene, ethylbenzene, xylene, etc., and fugitive natural gas (methane), escape and mix with nitrogen oxides from the exhaust of diesel-driven, mobile and stationary equipment to produce ground-level ozone¹. The coal seam gas flaring process can produce many hazardous chemicals including polycyclic aromatic hydrocarbons (PAHs, including naphthalene), benzene, toluene, xylenes, ethyl benzene, formaldehyde, acrolein, propylene, acetaldehyde and hexane, as stated by the Colorado School of Public Health².

Gas field produced ozone has created a serious air pollution problem and causes irreversible damage to the lungs. The health risks inherent in the current coal seam gas extraction process are unacceptable.

Social and Business Impacts

The new report by The Australia Institute shows that local businesses in unconventional gas regions in Queensland believe that gas development led to deterioration in their finances, local infrastructure, social connections and labor force skills.

The results show that expectations of economic benefits largely failed to eventuate and most other industries reported being worse off due to the unconventional gas industry push into their region. This report raises serious issues that have not been addressed, such as gas jobs being created at the expense of local service sector jobs and the gas industry having a negative impact on social cohesion

The analysis of mostly gas industry funded research also highlights survey results by the CSIRO that found less than a quarter of people living in unconventional gas regions approved of the industry and that only 6% thought it would change their region for the better.

Key findings of the report include:

- Local business stakeholders reported a deterioration in:
 - Financial capital
 - Local Infrastructure
 - Local skills
 - Social cohesion
 - The local environment

¹ Colburn, T, 2010, The Endocrine Disruptor Exchange
<http://www.endocrinedisruption.com/chemicals.introduction.php>, accessed 23 August, 2010

² Witter et al, 2008, White Paper: The Potential Exposure-Related Human Health Effects of Oil and Gas Development, Colorado School of Public Health

- Unconventional gas has reduced community wellbeing:
 - Fewer than one in four local people approved of the unconventional gas industry, with less than 6% believing it would “lead to something better”.
- Unconventional gas creates few additional jobs:
 - There were virtually no spill over jobs created in local retail or manufacturing.
 - Gas jobs will be slashed by 80% at the end of the construction period.

When regional towns become service centers for the gas industry, existing businesses often lose their skilled staff, have to compete with inflated gas industry wages and face higher costs for rent and services.

Many of the gas jobs come at the expense of services jobs. For every 10 unconventional gas jobs in the Queensland gas field areas studied, seven service sector jobs were lost. This is a real concern for people working in the service sector, which has always been a far bigger employer than mining.

Agricultural Impacts

Australia's domestic food supply is of critical importance, not only to the population dependent upon it but to the farmers who produce it. Food security is threatened by CSG mining practises which do not take into account the value of the land, only the value of what lies beneath it. Grazing land is rendered unusable when it becomes a gridwork of pipelines, supply roads and wellheads. Again, this land loses resale value, leaving farmers with no means to escape the situation CSG mining companies have forced upon them.

3. *government and non-government services and assistance for those affected;*

There are currently very little resources for land owners and local town residents impacted by CSG or proposed CSG operations. Land owners need access to legal advice, currently the Environmental Defenders Office does an excellent job of communicating to land owners their legal rights, however they are a relatively small not-for-profit. There must be greater levels of legal support. In terms of people suffering from mental health problems as a result of CSG exploration this area is completely lacking.

The need for the above mentioned services could also be reduced if new Federal legislation is brought in to give landowners the right to say no to CSG companies who want to extract gas from their land. Also, a moratorium on CSG until the social, environmental and economic impacts are understood.

Land owner access laws in NSW focuses on minor issues, such as closing gates, instead of the major points of contention such as the right to say 'no' to CSG, proper compensation, full transparency, and insurance and liability for damage caused.

4. *compensation and insurance arrangements;*

It has been the experience of farmers under proposed CSG projects in NSW that they have been unable to get insurance for the risk of contamination from CSG activities.

Wee Waa potato and peanut grower Sarah Ciesiolka, whose farming relies heavily on groundwater, learnt her property couldn't be covered after asking for a quote to cover potential contamination from CSG activities in the area. Mrs Ciesiolka and her husband Matt live and work about six kilometres from the northern edge of Santos' Narrabri Gas Project area.

Sydney-based environmental insurance specialist Anthony Saunders, EnviroSure, confirmed the lack of insurance covering the sector which includes the farmers, the explorers and the indigenous land owners.

He said one international insurance broker had made available an insurance policy for the CSG explorers, but the fine print excludes the financial costs to rectify the effects of gradual contamination to the land or the aquifer.

Mr Saunders said the message was clear - CSG production risks aren't mitigated unless an insurer would cover all liabilities.

5. *compliance and penalty arrangements;*

CSG compliance in NSW has just been gutted and is currently in an appalling state. Penalties for illegal exploration or mining has just been reduced from a potential \$1.1 million to just \$5000.

Previous fines for contaminating aquifers and discharging polluted coal seam gas water into local creeks have been met with paltry fines in the order of \$1500 to \$3000. These miniscule amounts do not impact on large CSG companies and must be increased to act as a deterrent.

6. *any related matter.'*

Landholders and Traditional Owners don't have the right to refuse access to mining companies in most Australian jurisdiction. This has created an unbalanced and socially destructive dynamic, causing lasting harm to individuals, businesses and communities.

Please feel free to contact The Wilderness Society Newcastle on the details below should you wish to discuss this submission further.

Yours sincerely,

Prue Bodsworth and Naomi Hodgson
The Wilderness Society Newcastle