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Senate Select Committee on Unconventional Gas Mining  
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Dear Committee Members

**Protect the Bush Alliance (PTBA)** is an alliance of 22 NGOs and community groups in Queensland and Australia representing over 30,000 people. Our goal is to implement ways of preventing the loss of areas of high conservation values. One of the ways we do this is by conducting flora and fauna surveys on properties of high conservation value and on the properties that are connected to them. Members of PTBA have had and will continue to have, close association with many land holders and communities that occur in areas of biological and conservation significance. Many of these areas are currently affected by the major resource developments planned for Queensland.

**Senate Select Committee on Unconventional Gas Mining:**

Inevitably, the Coal Seam and Shale Gas industries are invasive across broad landscapes, fragmenting habitats, affecting air and water quality - the cumulative effects of which are of enormous concern. No other industry in recent history has generated so much interest both politically and socially, with affected communities, farmers and naturalists voicing concern in the most eloquent of terms.

The issues associated with the industry are not unknown. The linear clearing of woodland ahead of pipe lines and infrastructure corridors is cumulative, the water used within this industry is unmonitored and unregulated and the impact on air quality has not been fully assessed.

Protect the Bush Alliance along with other conservation groups has previously requested an inquiry into CSG and Coal Mining in Queensland (September 2014).

In a submission to the Landholders' Rights to Refuse (Gas and Coal) Bill 2015 we noted during the 2011 Senate inquiry in to the CSG industry, Senator Heffernan said then, 'committee members were blown away with the absolute despair of the people we met and their sense of helplessness', during the Queensland hearings. That committee recommended the suspension of all coal seam gas projects in the area of southern Queensland and northern New South Wales where the Murray-Darling and the Great Artesian Basin overlap, pending new research in to water pollution and the effects of 'fracking'.

Despite this, the Queensland Government has issued further rights to companies, ie, Santos with a further 6000 wells. The closure of AGL in NSW is entirely due to active advocacy from communities caring to protect their productive farming land and their rural life styles. They are to be commended

for their persistence. Unfortunately for Queensland, rural communities affected by CSG did not attract the same concern as the Northern Rivers of New South Wales. A sense of inevitability was cultivated by the industry and supported by government.

Many members of PTBA have had close association with State Forests such as Gurrulmundi, Braemar and Barrakula in the region of Chinchilla and Miles. These areas were promised to be gazetted as National Parks by the Bligh government in 2012. The forests were not gazetted and as a result, gas companies have been given access to drill exploration and working wells in forests that were previously used for recreational purposes by the general public. As a result of the wells and associated infrastructure, the forest areas are now relatively inaccessible to the public and movements are restricted and monitored by the gas companies. State forests were designed to be a multi-use tenure that allowed for a broad range of activities as identified by the Queensland Government in 2013. By allowing large scale resource activities within state forests, these areas are no longer multi-use.

The chemicals that are used within the CSG industry have not been completely identified and fully studied for their environmental effects. Research conducted in Amsterdam (2015) found that the organic chemicals in fracking fluid have been uncovered in two new studies, providing a basis for water contamination testing and future regulation. The research, published in *Trends in Environmental Analytical Chemistry* and *Science of the Total Environment* reveals that fracking fluid contains compounds like biocides, which are potentially harmful if they leak into the groundwater. The fracking fluid comes back out at the surface as flowback water, which can contaminate the surface water and ultimately the groundwater if it is not properly disposed. Fracking companies add certain chemicals to prevent bacterial growth - but until now the precise organic content had not been established. The new studies discuss the organic constituents, providing a way to detect contamination in the water system and proposing methods to recycle the water safely. Chemicals used within the industry need to be clearly identified to ensure that the proper disposal methods are utilised and monitoring procedures can be created.

The issue of air pollution is comprehensively reported by Dr Wayne Somerville in 'How Could CSG Air Pollution in the Darling Downs be an "Acceptable" Risk to Health?' ([www.creeksbend.com](http://www.creeksbend.com)).

This report concludes that 2013-2014 NPI data for air emissions from CSG processing in the Darling Downs should not be ignored as a risk to health. In the Darling Downs, 5.5% of Queensland's population, are being exposed to unknown, variable doses of a complex mix of newly introduced dangerous pollutants. NPI data reveals rapidly increasing emissions of dangerous CSG related air pollutants in the Darling Downs. For example, in the year 2013-14, (see Table 2 in Appendix B) about 1,383 tonnes of Volatile Organic Compounds (VOCs), 13 tonnes of Acetaldehyde, 2.2 tonnes of BTEX, 241 tonnes of Formaldehyde, 8,788 tonnes of Carbon Monoxide, 12,189 tonnes of Oxides of Nitrogen, and 2,325 tonnes of particulates were emitted in the air above the Darling Downs. During 2013/14, on an average day, 3.79 tonnes of VOCs, more than 57.4 tonnes of Carbon Monoxide and Oxides of Nitrogen, and more than 6.37 tonnes of particulates were released into Darling Downs air. The effects from these pollutants on the human population and environment in these areas needs to be assessed. The needs of the natural environment must be included in this assessment.

Another important issue with regards to the mining areas is the introduction of exotic pests and weeds. As the mining areas are not being regularly surveyed and monitored by independent researchers and surveyors, the incursion of exotic species is likely to be high. These incursions would

be a result of the unregulated movement of imported equipment and international staff within these areas. PTBA identified an exotic land snail, *Bradybaena similaris*, not previously reported in central Queensland, during a survey on a property after a number of exploration wells were developed. (the specimen was collected from the location of the mining camp).

As a voice for Nature, PTBA asks:

- What are the long term effects of direct access to vital river and creeks systems for this industry and why is water consumption not monitored?
- What management plans are in place to prevent vegetation loads becoming a burden with increased fire risks to our forests and landscapes, especially in remote areas?
- Who is responsible for the biosecurity risk presented by the vast tracks of land no longer managed and allowing the spread of noxious weed, seed, and proliferation of pests

We commend Senator Glen Lazarus for bringing this critically important matter before a committee hearing and urge the federal government to cease all further expansion of CSQ as a matter of urgency until the findings are available.

Yours sincerely

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Project Coordinator PTBA.