

To the NSW Department of Planning and Environment

Submission on the Narrabri Gas Project

27 April 2017

I am writing to register my complete opposition to the Narrabri Gas Project. There is an astounding number of compelling reasons to reject the proposal. I believe that NSW should follow Victoria's lead in implementing a permanent ban on any unconventional gas mining, including coal seam gas (CSG). The Narrabri Gas Project exemplifies the many concerns with coal seam gas mining. These hazards can be categorised into the environmental impacts, human impacts and societal impacts.

Environmental Impacts

The primary environmental reason to reject CSG mining in the Pilliga region is the extreme risk posed to important water sources in the area. CSG is associated with high levels of salt and other extraction chemicals leaking into surface and ground water. This project would produce between 17,000 and 42,000 tonnes of salt waste every year. In the Pilliga that will mean contamination of two key water sources for eastern Australia: the Great Artesian Basin and the Murray-Darling Basin. The rivers of the Pilliga area flow into the Namoi River, putting it at risk as well. The devastating impacts of salination on water and agricultural is unfortunately already too familiar in the lower reaches of the Murray-Darling river system. Not only is there a risk of water contamination, but water removed by CSG processes could reduce water pressure in the ground water, potentially stopping the flow of water at springs and bores across the Artesian Basin. To place these water sources at risk of contamination or depletion is unconscionable in a desert nation such as Australian.

Santos has already contaminated a freshwater aquifer in the Pilliga with uranium at levels 20 times higher than safe drinking water guidelines, as well as lead, aluminium, arsenic and barium². In addition, there have been over 20 reported spills and leaks of toxic CSG water from storage ponds, pipes and well heads. Santos cannot be trusted with the health of water sources which are fundamental to the wellbeing of the Pilliga, the Great Artesian Basin and the Murray-Darling Basin.

There is also potential for Australia to be in breach of its international human rights obligations regarding the human right to water¹ if damage to water is allowed. This is particularly so in a semi-arid region such as the Pilliga where many residents are dependent on these precious water sources for household use, livelihood and agriculture.

¹ CESCR, *General Comment No 15: The Right to Water* (arts 11 and 12 of the International Convention on Economic, Social and Cultural Rights) UN Doc E/C.12/2002/11 (20 January 2003).

A second environmental problem with the project is the destruction to the Pilliga Forest. The Pilliga is one of 15 nationally listed 'biodiversity hotspots'. The forest is crucial to the survival of several threatened species: Koala, Spotted-tailed Quoll, Black-striped Wallaby, Eastern Pygmy-possum, Pilliga Mouse and South-eastern Long-eared Bat. The forest is home to over 200 bird species and is internationally recognised as an Important Bird Area. The Santos gasfield would fragment 95,000 hectares of the Pilliga with well pads, roads, and water and gas pipelines—damaging vital habitat and threatening the survival of endangered species.

Thirdly, approving the Narrabri Gas Project in the face of climate change is highly irresponsible, at best. Santos' EIS acknowledges that the project will contribute to a 0.2% increase in Australia's greenhouse gas emissions.² They describe this as being 'consistent with the principles of environmentally sustainable development'. I would suggest this figure is a considerable increase in Australia's overall greenhouse emissions for a single project. Further, CSG projects have been shown to be producing substantial levels of methane emissions which are unmeasured and unregulated, suggesting the real climate change contribution of Santos' 850 wells could be significantly above their estimate.³ Methane is by far the major component of natural gas, and is a greenhouse gas 72 times more powerful than CO₂. CSG fields contribute to climate change through the leakage of methane during the production, transport, processing and use of coal seam gas. Of course, contributing to further climate change will concurrently exacerbate water stress, particularly in outback communities already facing regular drought conditions.

Human Impacts

There are significant detrimental impacts on people living in proximity to CSG developments.

The direct health impacts for residents of the area can be extremely harmful. A range of hydrocarbons and volatile organic compounds can be released into the air from coal seam gas operations, including flaring of gas wells. The effects of volatile organic compounds vary, but can cause eye, nose and airway irritation, headache, nausea, dizziness and loss of coordination. These impacts have been documented in human populations nearby to existing gasfields in Queensland, Sydney and in America. To subject local communities to such risks is immoral.

A second known threat of CSG development is the likelihood of earth movement as a result of fracking. CSG mining drastically alters the pressure and structure in the earth around the drill site. This can lead to the earth settling in sudden and possibly violent shudders. In Europe, companies managing CSG projects have had to pay out over \$1billion for damage resulting from fracking-induced earthquakes. There is also a possibility the companies will face criminal charges.⁴ It is not unforeseeable that an extensive gasfield such as that proposed at Narrabri could create similar

² Narrabri Gas Project Environmental Impact Statement, Chapter 24.

³ Stephen Long, 'Methane Emissions from Coal Seam Gas Developments Raise Climate Change Concerns' ABC News (online) 3 March 2017 <<http://www.abc.net.au/news/2017-02-28/methane-emissions-from-coal-seam-gas-climate-change/8310932>>

⁴ Toby Sterling, 'Court Orders Shell Exxon Criminal Probe over Dutch Gas Quakes' CNBC Online, 20 April 2017 <<http://www.cnbc.com/2017/04/20/reuters-america-update-1-court-orders-shell-exxon-criminal-probe-over-dutch-gas-quakes.html>>

shocks. Approval of such a project would leave the residents of the region at risk of considerable damage to buildings, infrastructure such as dams and roads, and the possible loss of life.

Thirdly, the numerous gas flares and lights of the gasfield would compromise the dark night sky which is crucial for the Siding Springs Observatory in the Warrumbungles adjacent to the Pilliga. The 50m high gas flares proposed by Santos threaten the viability of the facility.

A fourth human impact of the project would be in the increase in bushfire risk. The Pilliga region is prone to severe bushfires. The likelihood of fires would dramatically increase with methane flare stacks up to 50m high running throughout the day and night, including on total fire ban days. This would increase ignition sources in the area. Neither local farmers and residents, nor the Pilliga forest, should be subjected to the stress and destruction of increased bushfire activity.

Societal Impacts

Lastly, CSG mining has a hugely detrimental impact on the social fabric of the communities that are affected by its presence. Mining companies such as Santos like to claim that they have social license. This claimed 'social licence' is rarely legitimate and most definitely does not exist in the Pilliga region.

I watched the impact of such lack of social licence on the Northern Rivers region of New South Wales where I grew up and where my family still reside. There the local council ran a poll which returned a result of 87% against the coal seam gas mining licences.⁵ Yet the State Government and the company holding the exploration licence promoted the project. This resulted in the largest blockade against CSG yet to be seen in Australia being held at Bentley in 2014. Eventually the State Government was forced to buy back the licence at tax-payer expense. This outcome took many hundreds of hours of work by many people in the community. The toll on the lives of individuals at the forefront of efforts to protect the land is quite extreme. There is also a significant cost to the entire community as conflict of that scale impacts community cohesion. Community opposition to coal seam gas around Gloucester NSW and Chinchilla QLD are further examples of the extensive conflict and negative impacts on rural Australian communities.

I would like to see the Pilliga region avoid a similar experience. However, community protest over coal seam gas is inevitable. There is growing awareness of the negative health and environmental impacts of unconventional gas mining. The social licence for such intrusions on the safety of our health and that of our agricultural and natural lands is now profoundly lacking. Extensive community surveys in the Pilliga have shown an average of 96% opposition to CSG. This stretches across a massive 3.2 million hectares of country surrounding the Pilliga forest, including 99 communities. Hundreds of farmers have participated in protest actions unlike any previously seen in the region. Additionally, the Gamilaraay people indigenous to the area are deeply involved in the battle against CSG, and have told Santos they do not want their country sacrificed for a coal seam gas field.

⁵ 'Lismore Votes No to Coal Seam Gas' Northern Star, 10 September 2012, <http://www.abc.net.au/local/stories/2012/09/10/3586897.htm>

This lack of genuine community determination of CSG projects is one of the key reasons that such mining should simply not be allowed. Even where the community has been nominally 'consulted' there is often a degree of misinformation generated by the mining companies involved. Fully informed discussion is often hampered by confidentiality agreements between mining companies and those land owners already being negatively impacted. In such circumstances the right of those communities to self-determination is farcical.

I do not believe the enormous environmental, human and societal risks inherent in this project can be managed or mitigated. I therefore urge for the rejection of the Narrabri Gas Project.

Sincerely,

Elke Nicholson