

**SUPPORT FOR DROUGHT AFFECTED COMMUNITIES IN NEW SOUTH
WALES**

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Position: Secretary

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SUPPORT FOR DROUGHT-AFFECTED COMMUNITIES IN NSW

To: The Legislative Assembly's Committee on Industry, Infrastructure, and Regional Development

Dear Committee members,

I previously lodged a submission on 28 November 2019. The following is supplementary.

I write regarding the following Terms of Reference:

- (c) direct and indirect impacts of drought on businesses and industries;
- (d) transition and recovery from drought when drought conditions begin to improve;
- (e) preparedness for future drought events;
- (h) capacity and coordination of town water supplies and further recycling opportunities;
- (j) any other related matter.

Introduction

My focus in this supplementary submission is the impact of coal seam gas (CSG) drilling including the process of hydraulic fracturing (“fracking”) on the environment and consequently human populations – especially regarding water use. In particular, I draw attention to the planned Santos Narrabri Gas Project – still to be approved – and the likely impacts on the drought-affected areas surrounding this Project.

I am of course aware that this Committee has no jurisdiction over the proposed Project. However, I trust that as the Committee comprises a number of cross-party elected representatives there will be discussion within the LNP and other parties about this proposed project and the intersection between current drought impacts and the likely impacts of the Project itself.

Summary of the proposed Narrabri Gas Project

For the benefit of Committee members who may not be aware of it, following is a summary of the Project:

Gas company Santos Ltd is proposing to drill 850 or more coal seam gas wells in the Pilliga Forest area and surrounding farmlands. If allowed to proceed, the Project would cover over 95,000 hectares – the largest project ever proposed in NSW. The Forest is located near the towns of Baradine and Narrabri and the villages of Pilliga and Gwabegar.

The Pilliga Forest constitutes over 5,000 km of semi-arid woodland in temperate north-central NSW. It is the largest such continuous remnant in the state. The Pilliga is an ancient forest, known for being a haven to endangered flora and fauna. It contains at least 900 plant species and is home to a great variety of birds, mammals, reptiles and insects many of which are already declining in appearance and number due to human impacts including climate change and ongoing drought and fire.

Impact on water sources

It is essential to note that the proposed wells are in the “recharge area” for the Great Artesian Basin (GAB). During this current prolonged drought, the GAB is the largest source of water for the hundreds of farms in the area and indeed for the general population. The Narrabri Shire relies for its drinking water on underground sources - notably the GAB. Although the Narrabri Shire recycles 100% of its wastewater, this is not sufficiently purified (due to the extra cost of the next processing stage) to be potable or safe for farm animals and edible crops. It is therefore mostly used for cotton farms in the area. There are no major damwater catchments in the Narrabri Shire.

Santos plans to withdraw 37 billion litres of water from the GAB – thereby lowering the water table and risking depressurising it. More concerningly, the Project would produce more than 430,000

tonnes of toxic waste water. Currently, Santos has not stated how it would dispose of the vast amounts of waste water which cannot, due to its high salt content and toxicity, be re-used for agriculture or general application such as in bushland or people's gardens. Toxic wastewater and drilling fluids are known to spill and leak, contaminating water and general ecosystems.

Pipelines would be required as part of the Project, going through farms and Aboriginal sites, against the wishes of landholders and Traditional Owners (see for example <https://reneweconomy.com.au/solution-australias-gas-crisis-not-gas-78235/>).

Aside from the above problems, if this Project were to proceed it would provide the incentive for coal seam gas drilling to expand across the whole North-West Region of NSW causing even further industrialisation to farming land and threatening the purity of water in the GAB.

Impacts of fires

The Pilliga Forest is prone to bushfires. During this current prolonged drought, fires have been burning in the area, including at the time of writing this submission. It is well known that CSG infrastructure and extraction can escalate the risk of a fire resulting in increasing dangers to firefighters as well as to the already endangered bushland. Santos has claimed that the cumulative risks of initiating a bushfire from CSG wells and processing facilities are low. However, the company's hazard register does not appear to include hazards and risks to public safety from, for example, open "flaring" (which occurs from a vertical pipe which typically has a diffuser attached to the end to promote gas combustion, risking setting off bushfires in extremely dry conditions). (<https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/epa/2564-gas-flaring-fact-sheet.pdf?la=en&hash=5B09F9A9F5AF1B0D47C7B0D2D8DC03AB5B2A74EB> and <https://www.theguardian.com/environment/2018/mar/21/narrabri-gas-project-fire-risk-unacceptable-firefighters-say>).

The current drought has already placed huge pressure on this whole area. Needless to say, the impact of yet more wild bushfires in this area will place even greater pressures on water supplies as well as the capacity of local RFS personnel to fight them.

Impacts on air quality and the wider environment

Air pollution poses a potential risk to workers and people living near to the proposed wells and beyond. Volatile organic compounds and hydrocarbons are released from "venting", holding tanks, wastewater ponds, compressors and other infrastructure. Methane, a potent greenhouse gas, adds to the serious health risks of global warming. Such potential risks should not be contemplated in an area already severely compromised environmentally.

Economics

Although a significant number of townspeople of Narrabri itself are reported as wanting the Project to proceed believing it will provide much-needed jobs, this is not the general wish of the farmers and communities in surrounding townships (<https://www.sbs.com.au/news/insight/the-town-divided-by-coal-seam-gas>).

Generally, people living in surrounding areas – including Wee Waa, Coonabarabran, Gilgandra, Dubbo and the Liverpool Plains, are opposed to this Project particularly as many towns in these areas are already on varying levels of water restrictions (from 1 to 5).

Well-known energy consultant Bruce Robertson has cited evidence from many countries, including the USA and Japan that demand for shale gas and CSG is falling rather than rising. Furthermore, gas production in Australia is already higher than demand although gas prices are too high for some manufacturing companies to afford. Added to this is the fact that royalties from CSG mining in Queensland are well below budget expectation. (Bruce Robertson, *Onshore Gas, Is it worth it?*)

Increase in royalties page 72 - <https://budget.qld.gov.au/files/4.%20Revenue.pdf> and estimated actual royalty take in 2018 -19 Page 86 - <https://budget.qld.gov.au/files/4.%20Revenue.pdf>).

In essence, despite the predictions and promises of the CSG industry (and Santos in this context) few rather than many jobs would be created and maintained in the medium to long term if this Project were to proceed while in Queensland, taxes and royalties are already showing far lower levels than promised or expected. (Refer to Australia's Oil and Gas Resources – IEEFA submission to the senate enquiry – published 20/11/19, Submission 29, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Australiasoilandgas/Submissions).

Rather than pinning hopes on jobs that at best would only last during the establishment of the wells but not afterwards due to increasing levels of automation, it would be preferable to invest in renewable sources of energy – notably solar – that would have far less detrimental impact on the environment, particularly water usage and would create safer, more regular and permanent jobs. (https://www.lockthegate.org.au/jobs_and_economy?gclid=EAlaIqobChMlyM_husKP5gIVSo6PCh3QpwnoEAAAYASACEgll8PD_BwE.)

Further development of the tourism industry such as farm-stays and camping in the Pilliga/surrounding national parks during non-drought/fire periods should be encouraged as having flow-on employment benefits for local townships.

Meanwhile farmers want to continue with their farming practices safe in the knowledge that their land, air and water will not be contaminated, or acquired, so that they may contribute their produce to the consuming public in the local areas and throughout NSW.

Conclusion

The Narrabri CSG Project – if implemented as intended by Santos – would be a disaster environmentally and economically for the whole region, not only Narrabri Shire. CSG mining is a short-term industry but water impacts are long term. Negative impacts will remain long after the industry is redundant and the majority of Australia's energy comes from renewable sources. The focus for the whole area must be to maintain the integrity of the Great Artesian Basin as the main source of water and to look for alternative sources of job creation than from establishment of CSG drills and work sites. This is particularly important in the context of predicted frequent and prolonged periods of droughts due to human-induced global warming (climate change).

Recommendations:

That:

1. Senior representatives from Santos Ltd (eg CEO/MD Mr Kevin Gallagher) and especially those with technical knowledge of water use, waste water holding and dispersal, and gas emissions be invited to present their case for establishing the Narrabri CSG Project and associated jobs;
2. Mr Bruce Robertson, consultant with IEEFA Asia Pacific, be invited to present evidence to the Committee regarding the economic risks to the towns and communities in the field of the Narrabri CSG Project and propose alternative sources of employment from establishing renewable energy plants (https://au.linkedin.com/company/institute-for-energy-economics-financial-analysis-australia?trk=public_profile_topcard_current_company);
3. the Committee call water experts from the Narrabri Shire Council to give evidence about its waste water recycling plant and whether funding can be increased to provide more infrastructure to enable greater purification levels for drinking or agricultural standards; and

4. that the Committee liaise with the Department of Planning through Minister Rob. Stokes and with the Department of Environment through Minister Matt Kean about the potential impacts of implementing 850 CSG wells in an endangered forest area and a drought-stricken region affecting farmers and townspeople alike, and discuss alternative projects for water-saving and employment measures in the entire region.

Adrienne Shilling



4 December 2019