



Tambar Springs Branch  
of the  
Country Women's Association of New South Wales  
Submission in Objection  
to the  
Narrabri Gas Project

#### Introduction and context

This submission is made on behalf of members of the Tambar Springs branch of the Country Women's Association (CWA) of New South Wales. The CWA exists to amplify the voices of rural women, to help improve health and educational facilities and to increase the viability of rural communities, including by advocating for environmental reform.

Our members strongly object to the proposed Narrabri Gas Project because it is inconsistent with the aims of our Association. The aims of the CWA of NSW are:

- (a) To bring all women and families together and form a network of support.
- (b) To provide a forum for the voice of all women in New South Wales and Australian Capital Territory.
- (c) To improve conditions and welfare of all women and families especially in country areas.
- (d) To support schemes which enhance the value of country living, especially health and educational facilities.
- (e) To encourage development in regional areas and to increase the viability of rural communities and the environment.
- (f) To provide a voice to the Government at all levels.

(g) To promote International goodwill, friendship, understanding and tolerance between all people.

The Tambar Springs Branch passed a motion on the 4th November 2019,

*That the NSW Government be asked,*

*A) to not approve the Narrabri Gas Project because it would drill through the Great Artesian Basin Southern Recharge Zone and*

*B) Extinguish the 11 expired and inactive Petroleum Exploration Licences in North West NSW”.*

This resolution was unanimously supported by the CWA Namoi Group, which comprises 18 branches, at their Council Meeting on the 4th December 2019.

## Water and the environment

The community that we represent has grave concerns about the potential for the Narrabri Gas Project to affect the quality and quantity of groundwater available to them, through its effect on the geology of the region. The Assessment Report acknowledged that there are uncertainties about deeper geological strata, but nevertheless ignored the concerns expressed by our community. The uncertainties about the geology of the region have not been reduced by further investigation and development of a whole-of-environment data repository, as was recommended by the report of the Chief Scientist's Independent Review of Coal Seam Gas Activities in NSW. The development of a whole-of-environment data repository is one of many recommendations made in the Chief Scientist's report that have not been implemented in the six years since the report was released. The Assessment Report also proposes further investigation of the deeper geological strata, apparently after approval of the Project. The CWA regards investigation of this issue after approval as far too late. If such investigation were to discover that the aquitards that are said to prevent drawdown were not, in fact impervious, there would be no way of going back to prevent or limit the damage to our precious water resources.

The proposed Narrabri Gas Project would damage North Western NSW over several generations as the worst impacts on water and the environment will last for hundreds of years. Water removed from the coal seam will be replaced by the highly valued water from the Great Artesian Basin and the Namoi Alluvium over an unknown period of time. As of now, after more than a decade of exploration, Santos has not established a safe method for disposal of the hundreds of thousands of tonnes of toxic coal seam gas (CSG) solid waste. The proposed storage in landfills is not a long-term solution and would be a legacy that the next generations would have to deal with and in the interim, there is a high risk of seriously contaminating ground and surface water sources. The viability of rural communities in this region will certainly suffer terribly. The futures of the people of North Western NSW must not be blighted by this short-sighted and outdated project.

## International relations

The CWA's aim of promoting international goodwill would also be hindered by approval of the Narrabri Gas Project. At a meeting of the Pacific Islands Forum in 2019, Australia stood against the seventeen other nations present and refused to commit to policies aimed at limiting global temperature rises to no more than 1.5C above pre-industrial levels. Continuing to develop fossil fuel projects which constitute a direct threat to the existence of some of our nearest neighbours shows an arrogance and lack of compassion that is contrary to the Australian character on which the CWA is founded.

## Social impacts, community and social licence

The claim in the Department's assessment report that "any adverse social impacts of the Narrabri Gas Project can be mitigated to a large extent" can only be a belief expressed by people who don't know, understand or live in the region. The notion that Santos can build a social licence to operate when it has so signally failed to do so over the past decade is absurd.

Rigorous, community-based surveys about residents' preferences in relation to gasfields in their area have been conducted over many years. The Mullaley/Tambar Springs area was the first community in the North West NSW region to participate in these surveys in December 2012, when 98.5% of residents expressed a clear desire to maintain a gasfield free community.

Since then over 100 communities in the North West have overwhelmingly rejected any proposed industrialisation of their land and surrounding environs by the CSG industry. Our evidence is based on a comprehensive data set which was methodically collected and collated. Overall, 96% of all respondents want their homes, farms and communities Gasfield Free.

To express their determination and solidarity, these communities have subsequently declared themselves Gasfield Free 'by the will of the People' in an area covering 3.28 million hectares encircling the Project area and involving all or part of 9 local government areas. Seven local government areas within the North West NSW region - Coonamble, Warrumbungle, Gilgandra, Moree Plains, Dubbo Regional, Warren and Walgett - have adopted various moratoriums banning coal seam gas exploration, mining and associated infrastructure in response to their community's stance. These councils cover an area of 8.57 million hectares with a number of surrounding councils also expressing concern.

The Assessment Report asserts that the negative impacts of the influx of workers are able to appropriately be managed by contributing to infrastructure and mitigating any adverse impacts on the housing market by providing onsite accommodation for workers. In fact, workers in other sectors boosted by the development (such as hospitality) need housing, and increased demand will push up prices. Such rises create difficulties for renters in the community who do not benefit from increased wages in the resources sector, for example, dishwashers and hotel cleaners, teachers, police officers, and state government staff. Lower income households are pressured by increases in the cost of living in the region due to increased demand for goods and services, potentially leading to the outmigration of these households.

The Assessment Report essentially proposes that Santos buy off the community by contributing to infrastructure and employing local people. This illustrates a fundamental misunderstanding of the likely damage to the community from this project.

## Health

A review of the research literature relating to the environmental and health impacts of unconventional gas development was published in 2016 by Jake Hays and Seth B. C. Shonkoff. The review concluded that "the weight of the findings in the scientific literature indicates hazards and elevated risks to human health as well as possible adverse health outcomes associated with UNGD." Professor Madelon Finkel, a US public health expert experienced with unconventional gas production states:

Policies should be informed by empirical evidence based on actual experience rather than assurance of best practices. There is a strong rationale for precautionary measures based on the health and environmental risks identified in the scientific literature.

### Water concerns

Produced water contamination: Almost 70% of original research studies on shale gas operations found “potential, positive association, or actual incidence” of water contamination (Hays and Shonkoff, 2016). In 2011-12 APPEA received 61 reports of environmental accidents and spills in CSG operations (Haswell, 2014, Letter to Planning and Assessment Commissioners). In spite of the limited number of wells CSG operations in the Pilliga have resulted in multiple contamination incidents (Haswell, 2014, Letter to Planning and Assessment Commissioners). US research shows that surface spills are an important route of potential and actual groundwater contamination (Haswell, 2014, Letter to Planning and Assessment Commissioners).

CSG operations pose significant risks to water and therefore the health of people and livestock exposed to impacted water. CSG involves “the use, generation or movement to the surface of many chemicals that can include toxic, allergenic, mutagenic and carcinogenic substances and methane.” (Haswell, 2014, letter to Planning and Assessment Commissioners). The water treatment proposed by Santos is described in the Assessment Report as ‘state of the art’. Experience at other CSG sites demonstrates that ‘state of the art’ does not adequately protect human health.

### Air pollution concerns

CSG developments result in increased air pollution: more than 85% of the studies considered by Hays and Shonkoff found that unconventional gas development increased levels of air pollution. McCarron’s research on Queensland’s Surat Basin (McCarron 2018) reported a dramatic increase in annual emissions of some particulates from 2006-07 to 2013-14, including:

- nitrogen oxides (489% to 10,048 tonnes),
- carbon monoxide (800% to 6800 tonnes),
- PM10 (6000% to 1926 tonnes),
- volatile organic compounds (337% to 670 tonnes) and
- formaldehyde (12 kg to over 160 tonnes).

Formaldehyde is a known carcinogen. Methane concentrations around the Tara gasfields in Queensland significantly higher than in surrounding areas which didn't have CSG infrastructure. (McCarron 2014).

CSG-related air pollution has serious consequences for human health. In the USA the following have been correlated with the presence of the unconventional gas industry: increased rate and severity of asthma attacks, increased hospitalisation for asthma, cardiac, neurological and skin conditions, increased incidence of congenital heart defects, childhood leukaemia, low birth weight, and early infant death (references cited in McCarron 2018). There are also emerging epidemiological studies suggesting interference with foetal development and birth outcomes, and exacerbation of asthma conditions. These are, of course, particularly concerning to rural families.

Residents of the Surat basin have reported health impacts including headaches, sore eyes, nosebleeds, rashes, respiratory symptoms, paraesthesia (McCarron 2018). Comparing 2007 data with 2014 data, there was a significant increase in hospitalisations for acute respiratory

conditions (increase of 142%, an extra 1794 admissions) and acute circulatory conditions (increase of 133%, an extra 2943 admissions) (McCarron, 2018).

### Psychological and social well being

According to Morgan (2016), farmers are subject to a unique set of stressors which can contribute to 'adverse mental health states, such as depression and anxiety'. A study of 378 Australian farmers, most in Qld (~47%) and NSW (~41%), concluded that CSG development is a significant contributor to stress in farmers. It's worth noting that concerns about the impacts of CSG on public issues - health, the community and the environment - were more significant than concerns about farmers' private issues - farm operations and profitability (Morgan 2016). Hossein et al. (2013) found that the rural communities of south-east Queensland were under sustained stress from the mining and coal seam gas industries, which has an impact on community mental health and well-being.

A study undertaken by Haswell et al. "Psychosocial experiences associated with preparations for CSG mining in a rural NSW community" found that people who had consented to have gas development on their land had fairly positive experiences. However, families who had not consented had very different experiences. Some quotes from these families:

The impact is becoming aware of the reality of what's going on around you. That takes a huge emotional and physical toll because you suddenly realise that, you know you don't just have to go to work and earn a dollar to feed your family. You've actually got a fight on your hands as well, this other really big fight that's threatening the way you live, an asset that you've worked all your life to save up for, and it's a direct attack on your, sometimes it's your values but it's certainly your lifestyle.

In lots of ways it's torn the community into two camps.

You keep telling people, it's a great community, but it no longer is... everybody knows you, everybody talks to you, smiles, you know? And it's no longer like that.

I hate to see [the community] go through what it's going through. I moved here because initially just before coal got here it was a wonderful place to raise your kids and now it's being divided, it's been split, it's got anger and it's got abuse and all sorts of things going on that's scaring a lot of people.

The recent drought has had a devastating effect on rural communities. Everyone here knows of several rural suicides. Our communities are remarkably determined and resilient. They will struggle but they will heal. However, the threat described so clearly in the quote above as an attack on values and lifestyle, a threat resulting from the choice of a planning system that doesn't share those values or respect that lifestyle, will change the entire structure and viability of our communities. The values and lifestyle of our communities are the things that help us to heal. They must not be destroyed.

### Climate change

Farmers are already suffering from the effects of climate change, for example, extreme weather events such as drought. There is concern that high levels and underestimated potency of fugitive methane emissions during drilling, production and transportation will add very significantly to climate change and its health consequences: The Climate Institute 2011. Haswell and Bethmont (2016) also warn that continuing unconventional gas development will accelerate the health impacts of climate change through major incidents (such as a well

blow out in California in 2016, which released more than 100,000 tonnes of methane into the atmosphere), fugitive emissions and competition with renewable energies.

## Conclusion

Our Association has proven itself responsive to changing social, cultural and environmental conditions. Since 2017 the policy of CWA of NSW is to support a ban on unconventional gas exploration, extraction and production. We are concerned at the risk to the health of our communities, potential damage to the environment and water resources, and further exacerbation of the climate crisis which damages our communities as well as international relations and Australia's reputation. The Tambar Springs branch of the CWA calls for this Project to be rejected and for a ban on coal seam gas extraction in NSW.

## References:

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