Submission against the Narrabri Coal Seam Gas Project

18th May, 2017

Recently I visited the Narrabri, Pilliga, Coonabarabran region to see for myself what is at stake with the proposed Santos Narrabri Coal Seam Gas project. It is a unique part of NSW and has many natural qualities that could be promoted without the environmental, social and health risks associated with coal seam gas (CSG) development. The hot spring bores, sandstone and salt caves, wildlife, extensive woodlands, incredible geology, and remoteness are examples of environmental features that make the area attractive. The area is thick with pioneer and Aboriginal cultural history. Innovative, progressive and creative projects such as Sculpture in the Scrub at Dandry Gorge and Pilliga Pottery are testament to the resilience and character of the outback and its people. Into the mix is the Siding Spring Observatory and Warrumbungles, another special and interesting landmark. These are the gems that draw tourism and its economic injection that keeps small business and towns alive. These are the gems that will continue to draw visitors far into the future if cultivated, supported and allowed to multiply. No one wants to visit a CSG development.

The following are some of the reasons I object to the Narrabri CSG project:

- The Environmental Impact Statement (EIS) is **not transparent**. Although enormous in length, it is lacking in important detail such as where roads, well pads, water, gas, communication and power lines will be located.
- 425 new well pads with 850 drill sites, new access roads, water and gas gathering and distribution lines, gas processing facilities, water management facilities, communication and power lines, workers' accommodation and extensions of existing infrastructure WILL fragment the Pilliga Forest: the largest temperate woodland in NSW and an extremely important refuge for biodiversity. Furthermore the construction of the aforementioned, the ongoing drilling and flaring (24 hours per day), vehicle and human traffic will create disturbance to all local fauna. Some species such as the critically endangered Regent honeyeater cannot tolerate such levels of activity and will consequentially lose habitat beyond that which is directly clear cut and developed.
- The EIS provides no information on the high-pressure gas transmission pipeline that would be built to transport the gas out of the area. This pipeline would have large environmental and social impacts in its own right which need to be considered.
- **Bush fire** is a very real threat in a naturally dry and seasonally very hot climate with 24 hour flares burning for twenty years.
- Other habitat impacts beyond that which will be directly clear cut and developed include areas considered to be at risk of fire and identified as protection zones and

fuel reduction areas. Actions such as repetitive fuel reduction burning modifies habitat which impacts biological diversity.

• The EIS claims the target coal seams are isolated from aquifers used by agriculture and community by "relatively impervious rock". I would suggest use of the term "relatively" casts serious doubt on definitive isolation between target coal seams and aquifers critical to agriculture and community in the local and extended areas. Also, drilling will travel through aquifers currently in use and it is clear from case studies both within Australia and abroad, that methane and other contaminates can and do compromise water quality in the vicinity of CSG sites. Media is rife with images of tap water and creek water being lit on fire due to methane contamination at other CSG sites. The Water Monitoring Plan referred to in the EIS is only monitoring with no suggestion of remediation solutions if adverse consequences occur. Adding to this, below is a copy of Santos's water monitoring disclaimer which casts serious doubts on the value, accuracy and transparency of any information gathered from said monitoring sites. For convenience I have highlighted that which is most disturbing.

"Santos is not responsible for and does not warrant the accuracy, performance or availability of the website, or that it will be free of errors or malware. Santos has made every effort to ensure that the information on this site is accurate and upto-date. However, Santos does not guarantee or warrant the accuracy, completeness or currency of, and takes no responsibility for any error or omission relating to, this information. In addition, Santos and its related bodies corporate accept no responsibility for errors or omissions relating to any information not provided by Santos. To the maximum extent permitted by law, Santos and its related bodies corporate will not be liable for any cost, loss or damage of any kind arising out of the use of this website or any information contained on the website. Users should not rely upon the information contained on the website and are encouraged to make their own enquiries.

"(http://www.santoswaterportal.com.au/water-monitoring-map-disclaimer.aspx)

- Self regulation does not work. Santos internal monitoring of environmental compliance for ground and surface water, air quality, noise and light pollution, treated water quality and waste is unlikely to be transparent. Again I draw attention to the above disclaimer found on Santos' water portal website copied above in which "Santos does not guarantee or warrant the accuracy, completeness or currency of, and takes no responsibility for any error or omission relating to, this information." Also I would like to question who would be responsible for recruiting the third-party environmental auditor for each three year audit. If Santos, then again I question the candour of such an audit.
- Groundwater removed from coal seams will be refilled from elsewhere. **Draw down** of aquifers is inevitable. Metal casing will rust over time as will cement casing

corrode. Wells will then act as a conduit between different vertical levels of groundwater reserves including the Great Artesian Basin. Regardless of the casing failure, water is able to travel outside the casing along the shaft created by drilling. Groundwater at drill sites will be contaminated by drilling fluid as well as chemicals that naturally exist in coal seams.

- Contamination of neighbouring aquifers has occurred at other CSG sites in Australia.
 Santos has already been fined for contamination of an aquifer in the Pilliga.
- Other contamination of water and soil has occurred in the Pilliga.



Spill Site at Bibblewindi on Tony Pickard's property.

Photo: Cameron Muir

The Santos Bohena 7 spill site



Photo: Anne McKenzie

And this month (6 May, 2017) these photos posted by Lock the Gate Alliance on facebook.



 Verbal communication with a field technician from Siding Spring Observatory confirmed that light generated from the Narrabri CSG site WILL increase light pollution at the observatory. Allowing this to happen would set a precedent for future development and Santos has CSG licenses for other areas surrounding the observatory. Siding Spring is an important scientific centre and unique tourist attraction; its future should not be compromised.

 Air pollution and fugitive emissions have caused health issues in Tara and Chinchilla CSG development areas including: headaches, nausea and vomiting, nosebleeds, irritation of nose, throat and eyes, rashes and sores, redness and cracking over hand joints, asthma, pins and needles in hands and feet. This has become known as Downwinders Syndrome. Mental health issues have also been documented in an increase of depression and anxiety.

On my journey through the area I camped at Wee Waa show grounds. The retired farmer who checked me in said that no one wants the CSG, but some people are desperate. I camped at Pillage bore hot spring and the grey nomads shook their heads and said they hear that story all the time through their outback travels. At Baradine Information Centre National Parks Staff were firm that they did not want CSG development compromising the large woodland area and unique species within it. Coonabarabran crystal shop filled me in on the incredible geological history of the area and stated simply that CSG is no good. The young man at the Narrabri service station said that the issue is dividing the community. These are firsthand accounts from community members and need to be considered along with the science.

CSG is an industry that has and does destroy communities. What the people are so desperately in need of are innovative and creative industry solutions that foster diversity in business and those businesses resulting jobs. Please think of the future and do not allow the CSG development to go ahead in the Narrabri region.