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To: NSW Department of Planning and Environment GPO Box 39 Sydney NSW 2001

The following is my submission to the Narrabri Gas Project

I grew up near Coonamble and know how important soil and water resources are to communities and farmers in this area. Most farmers care for their land, and some families have nurtured it for generations. They earn a precarious living, some years good, some years bad, doing something they enjoy - working hard to feed people, and want to pass this worthwhile lifestyle on to their children and grandchildren. They know that if the soil and water resources are contaminated, there is no hope, no future, as no amount of money will fix it.

I object to this project for the following reasons

- 1. The disposal of 35 billion litres of toxic water, most of it during a few years at the beginning of the project, has the potential to change ecosystems in rivers during a controlled release after treatment. It also has the potential to cause greater harm if an uncontrolled release occurs. (EIS Chapter 7)
- 2. The disposal in landfill of tens of thousands of tonnes of toxic salt, extracted through the water treatment process, will have adverse impacts on the environment. The EIS neglects to say where this will be deposited, denying nearby residents an opportunity to object. To put the amount of salt into perspective, an engineer and architect have both estimated from the figures in the EIS that the amount of salt to be disposed of will be equivalent to covering all of Martin Place approximately 20 stories high. (EIS 7.8.1)
- 3. Cement and steel degrade or corrode over time in a salty environment. A gas well like any constructed asset deteriorates with age. Leaking wells will either drain water from aquafers close to the surface to aquifers below or toxins from aquifers below will rise up and contaminate groundwater. All Australians will bear the costs of maintaining and monitoring CSG wells as they deteriorate, forever. The more wells the higher the cost. Refer Well Integrity of NSW https://www.youtube.com/watch?v=WJOcBZxpghg
- 4. In response to concerns about aquifer contamination Table 9-6 states 'Operators are required to submit a financial assurance to the NSW Government to cover the costs of rehabilitation.' A financial assurance is meaningless if a company is in liquidation, and **no amount of money is going to be able to rehabilitate a contaminated aquifer**.
- 5. A summary of a report published in August 2014 by the Meat & Livestock Association (MLA) pointed out the risks associated with coal seam gas (CSG) operations for livestock producers. The risks included loss of amenity and privacy; loss of biosecurity through vehicle movements and gates left open; workplace health and safety issues for staff and family; impairment of standard management practices; and contamination of livestock on neighbouring properties. The report also states that in respect of all of these the producer may have primary liability. https://www.mla.com.au/globalassets/mla-corporate/research-and-

- <u>development/documents/industry-issues/csg-operations-on-livestock-property_general-information-for-livestock-producers_2014_july_final.pdf</u>
- 6. Since then rural insurance companies have stated that they will not cover produce contamination, loss of water or environmental damage from CSG. Environmental Liability Insurance covers the cost of restoring damage caused by unexpected environmental accidents, but as coal seam gas extraction involves deliberate injection of chemicals into the ground, it is no accident that contamination occurs and it is therefore not covered.
- 7. **CSG cannot coexist with crop and livestock farming**. CSG vehicles spread pests and weeds. Extra roads and pipelines divide properties and limit farming activities. Some soils, once disturbed, subside or becomes boggy during rain where the pipelines are laid a danger for both stock and machinery.
- 8. **No amount of money will compensate farmers** for the loss of freedom to manage their own property. No amount of money will be able to restore their land after 25 years of CSG mining.
- 9. Santos claims that landholders have the right to say no to CSG, but landholders have less options if neighbouring properties have said yes. If a gas company causes damage to a neighbouring property they are unlikely to make good the damage unless they have infrastructure on that property. If an adjacent landholder has no agreement with the company and cannot be insured against CSG damage, they have to sue for damages. Avoiding lengthy and costly legal battles forces landholders to say yes.
- 10. **Productive land in or surrounding an unconventional gas field loses its value**. Landowners are not compensated for this.
- 11. The EIS refers to a community fund of \$120M but **no amount of money is stated for ongoing costs** such as spill rehabilitation, well and water monitoring and maintenance, or for further damage caused during the life of the project, and then rehabilitation after the project.
- 12. Increased fugitive emissions of methane from the Project will add to climate change. Heavier than air, methane is found near the ground and consequently impacts more on young children, native animals and livestock. Methane stays in the atmosphere for about twelve years. When gas is flared, between 65 to 80 percent of the resulting carbon dioxide 'dissolves into the ocean over a period of 20–200 years. The rest is removed by slower processes that take up to several hundreds of thousands of years.'

 https://www.theguardian.com/environment/2012/jan/16/greenhouse-gases-remain-air
- 13. The Project will clear nearly 1000 hectares of the Pilliga Forest for infrastructure. This will fragment the largest temperate woodland in NSW, home to unique wildlife.
- 14. It will **cause more trauma and displacement for the Gamilaraay people**, the local Aboriginal community, fracturing their connection to the area which is important to their cultural and spiritual health and therefore their general well-being.
- 15. The environmental damage and social harm caused by this industry in Queensland is known and should not be repeated in NSW. Instead NSW should invest in reliable renewable energy which has less impact on the population, other industries and the environment. Please note that I live comfortably off grid with solar power and battery storage.
- 16. **CSG** has enormous impacts on rural towns and their people. Chinchilla in Queensland was a prosperous agricultural town, like Narrabri. When the construction phase of the CSG projects started, Chinchilla became a booming mining town with high rents and lots of new businesses

- for about 4 years. When the production phase followed, rents plummeted, unemployment, crime and drug addiction rose and now Chinchilla is a welfare town.
- 17. The promised **new short term jobs for the construction phase of the project will only replace the long term jobs** in agriculture and tourism lost because of this industry.
- 18. **The coal seam gas industry divides friends, neighbours and families** due to impacts from spills, impacts on underground water supplies, and the varied and secretive compensation offers.
- 19. The NSW Government and Santos have not investigated the known harmful impacts on human health from CSG from research in Queensland and the United States.
- 20. Health effects from CSG in Queensland and Camden have been experienced by people within a 15-20km radius of CSG infrastructure. Santos infrastructure will be located 20km from Narrabri and closer to workers accommodation.
- 21. Industry bullying and threats of legal action combined with a landholder's isolation, uncertainty, and a sense of hopelessness, result in **increased mental health issues, such as depression, even suicide**.
- 22. Flares causing light sky polution threaten the recent rating of Siding Springs Observatory as an international Dark Sky Park.
- 23. With diesel, methane leaks and gas flares added to the easily combustible dry leaves, logs and pine tree forest, any fire starting in the project area has the potential to become a large scale bushfire. The EIS says the risk of a bushfire is medium but as they have occurred in forested parts of the project area on average every 9 years in the past, and the project is to run for 25 years, the risk is high. (EIS 25.2.3)
- 24. The popularity of Santos' stakeholder activities indicates the community's level of resistance to the Narrabri Gas Project, not good community relations. (EIS Chapter 9)
- 25. The 850 wells proposed in the EIS is just the start of the Narrabri Gas Project. If these wells are approved, Santos will need to expand the project to make it economically viable. To pay for the infrastructure they will need thousands of wells across some of New South Wales' highly productive farmlands and around the recharge areas for the Great Artesian Basin.
- 26. Cumulative effects of large gas projects have not been properly assessed. http://www.theland.com.au/story/4607273/concern-over-csg-cumulative-impacts/?cs=4963
- 27. Santos has failed to rehabilitate spill sites and has not reported further incidents of contamination of aquifers and breaches of the conditions of its petroleum title.
- 28. **Santos desperately needs gas to fulfil its overseas contracts** and therefore refuses to become a net contributor to the east coast supply.
- 29. **Santos has relegated its Narrabri Gas Project to a "non-core asset"**. Santos took a gamble on taking over this project from Eastern Star Gas.
- 30. Politicians from both major parties and staff from all levels of government have been corrupted by the fossil fuel industry. They have touted for CSG, retired, then worked in the sector. Hence the creditability of any politician or public servant espousing the virtues of this industry cannot be taken seriously.
- 31. New South Wales has always imported gas from other states and now Australia is one of the world's biggest gas producers. **We do not need this project**.
- 32. Much of the language used in the Environmental Impact Statement is not legally binding.

- 33. Any risk to water security on the driest inhabited continent on earth is not acceptable.
- 34. And finally I and many others would like our lives back. I am tired of campaigning against an industry that continually proves it is harmful to humans, animals and the environment. **State**and federal governments are responsible for this mess and should fix it. Some suggestions
 - a. Speed up the change to renewables
 - b. If we have to have gas, conventional gas needs less infrastructure and is therefore less disruptive and polluting than coal seam gas and other unconventional gases. Encourage conventional gas exploration but stop unconventional.
 - c. Both major parties should cease political point scoring on this issue. Instead have a serious debate and agree on a long term bipartisan energy policy.
 - d. Respect for politicians and the major parties can only be restored if politicians are not allowed to work in the sector, and like developers, the industry is banned from donating to political parties.

People judge their ancestors on their reaction to events of the past. I have started a file, with the intention of publishing the names and positions of those in favour of CSG projects so their grandchildren can judge them.

In the meantime a lot of clever people will continue the fight against unconventional gas instead of contributing in other ways to improve our society.

Signed

K.A. Haryin