Executive Director, Resources Assessments Dept of Planning and Development GPO Box 39 Sydney NSW 2001

Submission to Narrabri Gas Project

Thank you for this opportunity to respond to the Narrabri Gas Project. I have spent a good deal of quality time in the Pilliga, and was struck by the amount of wildlife there even in the middle of summer. Coal seam gas (CSG) and associated infrastructure segments this, as I have seen in Queensland, and thus destroying habitats for 50 reptile species, numerous birds and other animals. It's currently the largest continuous bushland in NSW. As such, it could be a valuable tourist asset. As the southernmost and vital recharge area for the Great Artesian Basin, it is also a vital wildlife and agricultural asset.

There are three Aboriginal Areas within the greater Pilliga area, but having communicated with the Gamilaraay/Gomeroi locals, I am aware that nearly every part is culturally rich. They have already experienced so much trauma through other mining activities in the area, that there is a sense that the Pilliga is the last keeper of culture and therefore absolutely vital to their communities.

CSG, or methane gas is a huge contributor to climate change. A CSG well has to be dewatered to capture the methane. Santos claim that hydraulic fracturing or fracking won't be used in the Pilliga, but that can change after approval, and often the geology dictates that use. Both extraction methods involve anywhere from 20,000 to 75,000 litres of water PER DAY and are renowned for well casing failures. The industry itself admits to 20% CSG wells leaking now, with 60% in the well lifespan. This results in contaminants going freelance above and below the ground. The earth releases many naturally occurring contaminants - Volatile Organic Compounds, BTEX, and NORMs, or naturally occurring radioactive materials. The release of these substances can cause anything from eye/nose and skin irritation, severe headaches, loss of coordination, and respiratory impacts. More chronically, we're looking at leukemia, lymphoma and a wide variety of nasty cancers.

The amount of infrastructure involved for the proposed 850 wells is phenomenal. In the past much of it is subsidised by the tax payer, such as high voltage power lines. The sum total of power involved in the extraction of methane gas is almost as much as the power it provides as it also involves access tracks, pipelines, man camps (in this case 'Westport'), compressor stations, processing plants, reverse osmosis plants, and the wells themselves. All of these require power to operate. The pipelines and tracks segment the countryside making grazing and broadacre farming difficult or impossible, and interrupts or destroys natural habitats. The pipelines include high point vents and low point drains which are notorious for releasing toxins. This is mainly noticed by locals, as the government oversight is practically non-existent.

As the compressor stations transport the gas through pipelines by pressurisation at points every 35 to 180kms, their turbines, motors and diesel fuelled engines make this loud and dirty plus they need flaring points which burn off excess gas and all the other poisons that go with it like aluminium, lead, acetone, hydrogen sulphides and super sulphates. These are also released at the high point vents scattered throughout the countryside. Processing plants that refine the gas are massive industrial complexes that also flare a great deal of contaminants. Reverse Osmosis plants which are supposed to purify water for re-use, but they are expensive to operate (therefore few in number) and inadequate to the job. Man Camps accommodate the workers and produce all the waste of a small town without benefitting local economies. It also drains local agricultural industries of skilled labour. All this production and infrastructure in the Pilliga would simply destroy it, as it has in Queensland.

Add to that the fugitive emissions, it's roughly estimated that methane production from go to woe, is a greater contributor to greenhouse gases than coal.

Every step of the way there's the water. When this vast amount of water is used, it comes to the surface in a pretty toxic state, so it's classified as industrial waste, but a key is that it has a very high salt content. I do not believe Santos have adequately addressed the amount of salt that will need to

be disposed of. They hold it in dams that are inadequately lined, prone to leaking, collapsing and overflowing during heavy weather events.

The extraction of so much water has been linked to land subsidence which affects the elevation and slope of surrounding water systems and damage to infrastructure. Dumping the water on the surface can and has poisoned livestock agricultural areas, and contaminated creek systems, bushland, fish and wildlife. It draws down aquifers which depletes the bores that so much of Australia depends. The depressurisation and even gasification of domestic bores has destroyed industries and households. It dries up natural springs and wetlands that are vital for wildlife. The CSG contaminated zones in the Pilliga have never recovered. Santos' proposal to release treated water into Bohena Creek is utterly unsustainable without stringent government oversight. So far in the CSG industry, official, independent inspection has not been forthcoming.

I have been to Santos gas fields in Qld and discovered that Santos has been known to bully nondisclosure agreements onto farmers so they can't discuss the difficulties that they suffer. But from those who have spoken out, we hear of rubbish being left everywhere by mining workers, fences cut, and all agreements about dust and noise monitoring are completely ignored. In a Santos gas field area we saw gates with huge writing on them begging to leave the gates shut. Instead they were wide open with the prize cattle on the other side next to a compressor station reeking toxins. Santos threatened at least one landowner with police arrest if they put padlocks on their gates.

The Meat and Livestock Association (MLA) commissioned a report into the contaminants in livestock in the Qld gas fields. They refuse to release the findings to their own MLA members who paid for it as it is considered too legally sensitive because it addresses liability. Whose liability? And for what? Santos does not address such issues in it's submission.

Santos workers have lied about the cleaning certificates on their machinery and have tracked in declared weeds and contagions that by law, the farmers have to keep out.

Farmers have all their capital, assets and superannuation tied up in their farms. Once this is destroyed, so is their future economic input and that of their children.

Another point of beauty in the Pilliga is it's night skies - it is a huge asset in itself. The CSG activities will adversely affect observation for Siding Springs Observatory.

It is for all these reasons I strongly object to the Narrabri Gas Project and Santos' EIS submission.