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To Whom it May Concern

This is a submission to Santos Environmental Impact Statement (EIS) for the Narrabri Gas Project.

I object to this project and believe it should be rejected.

NOT PROVEN TO BE SAFE FOR
ENVIRONMENT

The lack of detail: Santos' EIS is very short on detail. It does not provide maps indicating where these 850 wells and the lines and infrastructure that run between and around them will go. Santos is seeking a blank cheque

consent for this gasfield on the promise that it will decide where the wells will go afterward using a “Field Development Protocol.” No project has ever been assessed this way before in NSW and the constraints Santos propose are weak and subject to change later on. This is not an appropriate way to assess the largest development project ever undertaken under the Environmental Planning and Assessment Act, and a sanctioned State Significant Development, and the Government must insist that Santos release details to the public about the placement of its wells, pipelines and some other infrastructure before any further assessment is undertaken.

There’s no justification: The significant harm on the social, environmental, and economic values of the Narrabri Shire and New South Wales that this project will inflict needs to be weighed against the economic justification for the project, but there is no such economic justification. Santos is one of several large gas companies that threw the east coast gas market and the industries that rely on it into turmoil by opening up CSG fields in Queensland and contracting to sell more gas than those fields can produce to overseas customers. They drove up the price of gas and are plundering supplies previously available to manufacturers and power stations.

<http://www.smh.com.au/environment/higher-energy-prices-have-little-to-do-with-gas-shortages-researchers-say-20170517-gw6tg2.html>

The gas produced at Narrabri might be as little as 4.9% of the volume contracted for sale out of Gladstone. It’s not going to bring down prices. In fact, it will force prices up, because unconventional gas like CSG is so expensive to produce and yields are so low. Research undertaken by gas company AGL shows that gas from the Pilliga would be the most expensive gas of anywhere in the current east coast gas market (in excess of \$10/GJ). The total number of jobs the project will support once the construction is over is just 145, with approximately 10% of those based in the Narrabri LGA. Weighed against damage to the land, and the Great Artesian Basin, this makes no sense. We need sustainable jobs, not plunder for profit.

Groundwater and the Great Artesian Basin: The Narrabri gasfield poses a real risk to our two most precious water resources: the Great Artesian Basin and the Murray-Darling Basin. The area of the Great Artesian Basin with the highest recharge rates is almost entirely contained within the Pilliga East Forest, where Santos propose drilling. Santos’ project is expected to remove 37.5GL of groundwater over the life of the gasfield, mostly in the early years. The coal seam needs to be dewatered to release the gas, but this aquifer lies beneath the Pilliga Sandstone, part of the Great Artesian Basin recharge. Santos’ EIS admits that the project will result in a loss of water from the GAB recharge aquifer over time – the water removed for CSG extraction will reduce water pressure in the recharge areas—potentially stopping the free flow of waters to the surface at springs and bores across the whole Great Artesian Basin. CSG in Queensland has drawn down GAB aquifers already. We can’t afford to risk this crucial resource.

Creeks in the Pilliga run into the Namoi River—a part of the Murray Darling Basin. This system is vulnerable to contamination from drilling fluid spills and the salty treated water produced from the proposed 850 wells.

Salt: The water removed from the ground by Santos will be treated, but this creates another problem: what to do with the salt? Peak salt production at Narrabri CSG will be 115 tonnes per day, or two and a half 8-double truckloads per day. In the peak year, this would mean the creation of 41,900 tonnes of salt for disposal, for which Santos has no solution, other than saying it will take it to landfill at a yet to be disclosed location. The Government must insist Santos provide the specific details of disposal before any further assessment is undertaken.

Farmers and other local community reject the project: Extensive door-to-door community surveys have shown an average of 96% opposition to CSG. This stretches across a massive 3.28 million hectares of country completely surrounding the Pilliga Forest, including over 100 communities, and demonstrates that Santos has

no social licence. Hundreds of hard-working, conservative farmers have participated in protest actions unlike any previously seen in the region.

Cultural heritage and the Pilliga: The Pilliga is a spiritual, cultural, and social icon for Gomeroi/Gamilaraay people. Fragmentation and industrialisation cuts people off from their heritage and connection to country.

Biodiversity and the Pilliga: The Pilliga is also the largest temperate woodland in New South Wales. Santos propose clearing nearly 1,000ha of the Pilliga, including habitat for critically endangered Regent honeyeater and for koalas, which are already in decline in the Pilliga. Spread across the whole forest, this clearing will fragment much larger areas of habitat. The gasfield will clear breeding habitat for Pilliga Mouse, which lives nowhere else, and breeding habitat for other wildlife. It will fragment and degrade the forest. Without specific information about where the wells and lines will be located, a proper ecological impact assessment can't be completed. Regardless, the Pilliga is a cherished natural and cultural icon and must be protected from becoming an industrial gasfield.

Social and health impacts: Santos' social impact assessment is three years old and utterly inadequate. The compendium of health studies produced by the Concerned Health Professionals of New York shows mounting evidence for health damage by unconventional gas operations, including water contamination and respiratory illness. The Government must insist that Santos conduct a proper health impact assessment and baseline testing including modelling exposure pathways, reviewing literature and engagement with the Narrabri community. In Narrabri, this project will have negative impacts on cost-of-living, the labour and housing markets. The latter is cited in as a benefit of the project but it will not benefit low-income renters, pensioners, and other vulnerable members of the community. The effect of the project on cost-of-living in the Shire needs to be modelled, assessed, and considered, as do the labour dynamics of the project. The project entirely surrounds Yarrie Lake, and Santos propose that wells might come as close as 200m from the Lake.

Air quality: The air quality assessment fails to include health-damaging fine particulate pollution with a diameter of 2.5 microns or less (known as PM2.5). With diesel generators at each well pad and at the water treatment and gas compression plants, there will be significant PM2.5 emissions. The air quality assessment and greenhouse section also fail to model the likely substantial escape of fugitive methane emissions.

Dark sky: Light pollution from flares, compressor stations and the water treatment plant will ruin the dark sky needed by the internationally renowned Siding Spring Observatory and Dark Sky Park.

Climate change: Recent research by the Melbourne Energy Institute shows that Australia may be dramatically under-estimating the fugitive methane emissions from unconventional gas, including coal seam gas. It's not needed or useful as a source of energy: we have the technology we need to replace gas with renewable energy sources.

<http://www.abc.net.au/news/2017-02-28/methane-emissions-from-coal-seam-gas-climate-change/8310932>

I call on you to immediately reject Santos' Environmental Impact Statement for the Narrabri Gas Project.

Yours sincerely

