

REASONS - FOR WHY THIS PROJECT SHOULD BE REJECTED.

Unacceptable - for Human Health

- Symptoms of chemical exposure reported from Qld include severe headaches, nausea, vomiting, nose bleeds, rashes, eye, throat and severe skin irritations are all likely effects these alone justify this project should not proceed.
- Contaminated waterways e.g. as experienced with Condamine River, are a danger to human health.
- Operationally such a production plant exposes employees to unacceptable health hazards.

Unacceptable – Environmentally

- CSG extraction is spatially intensive. This intensifies air, light, sound, dust, water pollution.
- Baseline data indicates no Methane CH₄ naturally occurring in the Pilliga.
- Wells and infrastructure leak. Approximately 5% leak in the first year, more will fail with age, and all will fail with maturity. Hence one of the reasons to sink so many wells.
- Leakage can occur from anywhere around a well, even at considerable distances because gas migrates easily through rock.
- Methane (CH₄) is purposefully vented and leaked; during drilling, during initial fracking (drill fluid) flow back period, continuously at pad site via leaking wells, during gas processing, and during transmission, storage and distribution.
- Regulations will not stop well leakage of Methane and other harmful gases.
- Over a 20 year time frame CH₄ is 86 times worse than CO₂ as a greenhouse gas, over 100 year time frame it is 34 times worse. Thus even small leakage is significant.
- With the increase in climate change this is of International significance, and is irresponsible.
- In the risk assessment they claim that “risk of uncontrolled loss of gas leading to a fire was low to very low”. There is no consideration of the cumulative risk associated with 850 wells. And no reference to the risk that is posed by having high pressure flammable gas in a fire prone forest.
- Treated water will be allowed to be disposed of into Bohena Creek when there is a flow rate greater than 100 megalitres per day.

Unacceptable – Aboriginal Heritage

- The report trivialises the Aboriginal view of “country”. Theirs’s is a view based around landscape and connections and dreamtimes. Though important, it is just the presence or absence of artefacts.
- Over at least the last 50,000 years, all parts of the country were known and utilized. Even if a place was visited only once in 50 years, that was still totals 1000 visits. All places have story attached to them. Yet, this area will be heritage will be destroyed for just 25 years supply (ref Santos) of CSG!!!
- Apparently the people consulted with respect to the Cultural Heritage Plan weren’t even Gomeroi!

Unacceptable – for Ground and Surface Water

Groundwater

- Recharge to the Great Artesian Basin (GAB) occurs across the project area from the Namoi in the north east right down through and below the Pillage shrub to the Warrumbungles in the south.
- The gas wells will penetrate the GAB and provide pathways for higher level water to move down to the depressurized coal seams below, and connectivity will occur.
- Groundwater will be adversely affected by this proposal by: a reduction in SWL, the quality of water will decline by cross contamination caused by connectivity, and most importantly the quantity of water available to the agricultural regions and towns to the western parts of NSW
- ‘Produced’ water has been in the coal seams for millions of years and has thus absorbed contaminants for the coal. These are the organic molecules sought as unconventional gas – methane but also benzene, toluene, xylene, ethyl benzene. They also contain heavy metals such as uranium, lead, cadmium ... All of these additional gases and heavy metals are dangerous to life in any form; humans, animals, plants and insects.
- CSG produces more water than it uses. It is called “produced water”. This “produced water” contains large quantities of a variety of dissolved salts, not just table salt. No satisfactory method of disposal has been given for these salts. There is no use for the tonnes of salt extracted which will be stored in ground bunkers.
- The ‘produced Water’ will be stored in lined storage dams. These dams have leaked in the past, have overflowed and will do so again. The salt will be separated from the water by an energy-hungry method called reverse osmosis. RO is not a permanent reversal of chemical ions.
- Spills of this contaminated water have occurred on several occasions over the life of the project to date from only the few exploratory wells, whether by accident, failure of regulation, or lack of monitoring. Proposed now are more than 850 wells! Think of the environmental damage spills from this number of wells will cause. Unacceptable

Leakage of contaminants into shallow aquifers.

- Leakage into deep artesian aquifers near fault zones will contaminate surface artesian springs and arid zone vegetation communities.
- Leakage of water of different qualities between previously isolated aquifers.

Surface water

- Leakage into shallow aquifers that support streams or spillage on the surface that washes into streams thus polluting the river system
- Likely adverse impacts on watercourses, riparian lands, soil biota in the whole ecosystems, and other water users.
- Likely adverse effects on water-related infrastructure, surface water dependent living species.
- Contaminants polluting streams and the Namoi River system to the detriment of all downstream water users.

Unacceptable – Ecologically

- Impacts are not just limited to habitat removal as claimed - “small proportion of habitat being removed relative to that being retained”, and a 50 metre buffer zone does not contain the constant hum, the light, the dust, the sound of vehicles, the fugitive emissions.
- The smaller an organism is the more it is affected by pollution. It would similarly affect small native fauna.
- Apiculture is a significant industry in the Pilliga and bees are very sensitive to adverse environmental conditions.

- Minor changes to the chemistry of the water can affect fish breeding and the existence of recently discovered species of Stygofauna.
- Intrusion of the natural ecology of the Pilliga is too high a cost.

Unacceptable – Atmospherically

- Constant Flaring will have an adverse effect on the Dark Sky.
- Light pollution would cause the internationally important Siding Spring Observatory to close down. – what justification can there be for that closure?

Unacceptable – Economically

- The benefit to the local economy is highly questionable. Santos appear to only promise 150 direct jobs, most of which will be specialist workers ‘imported’ from other areas.
- This gas will not be directed to solving the “gas crisis” of the industry’s making but be piped to Gladstone or Southern NSW to ensure exports to fulfil ill-advised contracts can be met.
- Royalties will only be paid on the CSG exported for sale and only be priced at the Well head price not the FOB price.
- Farmers and Landholders directly affected will have an inability to get insurance against damage caused by the industry.
- Major Banks have already indicated an unwillingness to take surety of land titles for mortgage loans.
- Land values have already declined, and property sales in the affected areas are extremely difficult to achieve.
- Tourism and Tourism jobs would be adversely impacted.

General Reasons

- An attempt to attain a ‘Social License’ by Santos in 2011 failed. I was a member of the initial steering group, which folded after Santos would not, or could not; satisfy members’ conditions for their continued participation. Ref: consultants Twyford. The Company had a predetermined agenda to achieve a social license, but members of the group would not compile with that agenda, so Santos choose to stop the process.

The Santos EIS.

- The Risk analysis is limited to only the expected life of the project, apparently approximately 25 years. So any infrastructure and any compliant conditions of approval would only be ‘guaranteed’ for that time. After that time risk is borne by the general public and the subsequent analysis and cost is not calculated. This is unacceptable.
- The repeated use in the EIS of terms such as; “where possible”, “all reasonable and feasible measures would be implemented for project emissions to comply” is simply subjective and unacceptable. Particularly since, Government has not had in the past, nor will have in the future, the capacity to ensure compliance of ALL conditions, it may apply.

This industry is so risky, it will require so many unmonitorable regulations that it just shouldn’t go ahead.

It is simply too dangerous.