

## **Make a submission against the Narrabri Gas project**

The Independent Planning Commission will soon make its decision about the Narrabri coal seam gasfield. Make sure you lodge your objection by [visiting the IPC's website here](#).

### **Background to the gasfield proposal**

Santos plans to develop 850 new gas wells across 95,000 hectares in the north eastern part of the Pilliga forest near Narrabri, clearing close to 1,000 hectares of the forest in small patches and connecting lines in the process. It's not just forest, though, there are over 100 residences in the project area of the gasfield. The coal seams are 800-1200 metres deep below the forest where there is an outcropping of the Pilliga Sandstone, a crucial southern recharge of the Great Artesian Basin.

In February 2020, a NSW Legislative Council Committee found the Government had fully implemented only 2 of the 16 recommendations made by the Chief Scientist in 2014 to guard against risks of the coal seam gas industry. Half of the recommendations had not been implemented at all.

Santos proposes four phases for the development, which can overlap:

- Phase 1 is the drilling of 25 more coal seam gas wells for "exploration and appraisal" in addition to 69 wells already drilled in the forest. It is proposed that this will occur before a pipeline is approved or built, and before some of the management plans for the gasfield are finalised. Santos is already commercially using "appraisal gas" in its Wilga Park power station, and paying no royalties on it.
- Phase 2 is construction of the rest of the production gasfield. The Government has proposed there be a condition of approval for the gasfield that this stage cannot begin until there is approval in place for a pipeline connection, either the Queensland-Hunter gas pipeline to Newcastle, or the Western slopes pipeline to the Sydney-Moomba pipeline.
- Phase 3 is production of gas from the gasfield.
- Phase 4 is decommissioning.

This project is the most controversial in the history of the *Environmental Planning and Assessment Act 1979*. The Environmental Impact Statement attracted 22,721 submissions, of which 98% were objections. The majority (63%) of the 470 submissions from the immediate local area were also objections.

**The IPC will hold a public hearing about the Narrabri coal seam gasfield on 20-24 July. If you object to the development, make sure you register to speak at the hearing.** Submissions are open until one week after the hearing.

Make your submission via the IPC's website, making sure you note that you "object"

**Make sure you make your submission unique to your own views. We've compiled some facts to help you.**

### ***Water***

- Santos has used the most basic level of groundwater model because of how little is known about the deep aquifers they will dewater to extract gas.
- Over 20 years, Santos will remove 37.5 billion litres of water from deep below the Pilliga and removing this water will cause depressurisation and loss of water in the Pilliga Sandstone, the southern recharge of the Great Artesian Basin, which outcrops in the Pilliga.

- The model has been described by the Government’s own water agency as having a “**high level of inaccuracy**”<sup>1</sup> and “**not able to provide output at the scale and accuracy to assess the project’s impacts against the minimal impact considerations of the Aquifer Interference Policy**”<sup>2</sup>. The Department of Planning’s Water Expert Panel said it was concerned the model “**may have poor predictive capacity in relation to the impact of production of the surrounding impacted water sources.**”<sup>3</sup>
- The approach taken by the NSW Government and its experts is to grant Santos approval to proceed, and let the company drill 25 more appraisal wells while gathering baseline data to inform a more accurate upgraded model before proceeding to full development.
- There are serious anomalies and unknowns regarding:
  - The degree to which deep aquifer dewatering for coal seam gas will disrupt recharge of the Lower Namoi Alluvium by the Pilliga Sandstone;
  - The presence of faults that might accelerate movement of water or methane;
  - Santos’ ability to obtain licences to account for the water the gasfield will take over decades and centuries into the future since the productive groundwater sources affected are fully allocated and have limited water trading.
- The Department of Planning is downplaying the importance of the Pilliga Sandstone as a recharge aquifer of the Great Artesian Basin and claims that there will be “no significant impact” but in reality, there is not enough information for them to make this claim.

#### **Chief Scientist’s recommendations**

- The Government’s failure to implement the 2014 recommendations of the NSW Chief Scientist and Engineer amplifies the risks of this project and means it must be refused.
- A NSW Legislative Council inquiry in February 2020 found that Government had fully implemented **only two of the 16 recommendations** and half had not been implemented at all.<sup>4</sup>
- The Chief Scientist recommended enhanced insurance coverage for the coal seam gas industry but this has not been implemented. The parliamentary inquiry described the industry as “**uninsurable.**” The NSW EPA’ says getting insurance is “not straightforward” and “Operators choosing not to hold relevant insurance will be required to instead prove to the EPA the existence of sufficient potential clean up funds.”<sup>5</sup> There is no mention of this “requirement” in the Assessment Report or draft consent prepared by the Department.
- The Department’s own Water Expert Panel noted that the Chief Scientist urged that “drilling is allowed only in areas where the geology and hydrogeology can be characterised adequately” but that the Panel is not confident the information provided by Santos meets that threshold.

#### **Waste**

- Treatment of water brought up from underground will produce up to 840,000 tonnes of solid salt waste, laced with heavy metals, which will need to be disposed of.
- Santos and the EPA claim this salt will be non-hazardous, but it will have concentrated elements of whatever heavy metals are in the coal seam water they bring to the surface. Santos will also need to find disposal area for 720,000 cubic metres of coal-based drill cuttings.
- The salt waste will predominately be sodium bicarbonate and its estimated volume has roughly doubled since the first estimates in the EIS, totalling 840,000 tonnes.

<sup>1</sup> DPIE Water “Advice on Supplementary RTS” August 2019.

<sup>2</sup> DPIE Water “Advice on EIS” April 2017.

<sup>3</sup> Water Expert Panel Advice. Appendix G, Assessment Report on the Narrabri Gas Project.

<sup>4</sup> Portfolio Committee 4. Report 42. February 2020 “The implementation of the recommendations contained in the NSW Chief Scientist’s Independent Review of Coal Seam Gas Activities in New South Wales.”

<sup>5</sup> EPA NSW February 2020. “Safeguarding future environmental liabilities from Coal Seam Gas Activities in NSW

- The NSW government’s approach is to approve the gasfield first and trust Santos to prepare a strategy for reuse or disposal of this waste before full development, but as the EPA has pointed out, Councils who run waste disposal facilities do not have to accept Santos’ salt waste.

### ***Social impacts***

- Coal seam gas brings upheaval and division to rural communities. In southern Queensland, a CSIRO survey in 2014 found that only 6% of local people living in gasfield areas thought that the industry has improved their lives. In comparison, 42% said that they were “not coping” or “only just coping” with the changes the industry has made to their lives.<sup>6</sup>
- Santos’ own assessment found that there would be “almost certain” impacts on housing affordability for Narrabri residents, which will disproportionately affect low-income households and Indigenous people, who are far more likely to be renters.
- During the construction period, the presence of a predominately male non-resident workforce will change the gender balance in the community from roughly equal men and women to 56% men, 44% women. This “masculinisation” has been observed to have negative social consequences in other communities with a fly-in fly-out mining workforce.

### ***Aboriginal cultural heritage***

- The Pilliga is a hugely significant landscape for Gomeroi people. Santos’ Aboriginal cultural heritage assessment identified 90 known Aboriginal cultural heritage sites in the area, as well as areas of potential cultural heritage sensitivity, which the company has committed to avoiding when it situates its drill pads and infrastructure, but this is based only on already-known areas.
- No detailed new surveying of the area for Aboriginal cultural heritage has taken place yet.
- Santos proposed to undertake detailed surveys *after* it gets approval and avoid newly found sites of high significance, but this is a highly risky strategy and once granted, the approval will not be able to be revoked.

### ***Biodiversity***

- The Pilliga is the largest temperate woodland in eastern Australia and Santos proposes to industrialise 95,000 hectares of it, clearing close to a 1,000 hectares in small patches and connecting lines, including removal of several endangered ecological communities.
- Only limited surveys were done for the assessment of the gasfield, but these found 10 threatened plants and 35 threatened animals in the gasfield area, including pygmy possums, koalas and the Pilliga mouse.
- The Pilliga once hosted one of the most important koala populations in New South Wales, but the species is now on an extinction trajectory in the area. With so much habitat and lives lost to recent bushfires, it is crucial to the survival of the koala that its bushland habitats be spared industrialisation.

### ***Economic impacts***

- The Department claims Narrabri gasfield will bring “additional supplies” of gas, but the assessment material provided by Santos makes it clear that “ **it was assumed that the project did not add to total gas supply at a national level.**”<sup>7</sup> Furthermore, Santos clarifies, “it was assumed that the project itself did not drive change to gas market prices.”

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<sup>6</sup> Walton, A., McCrea, R. and Leonard, R. (2014). *CSIRO survey of community wellbeing and responding to change: Western Downs region in Queensland*. CSIRO Technical report: CSIRO, Australia.

<https://gisera.csiro.au/wp-content/uploads/2018/03/Social-2-Final-Report.pdf>

<sup>7</sup> DPIE. June 2020. *Assessment Report Narrabri Gas Project*, Appendix H2 – B.

- Claims of job creation are crucial to the project's justification, with an anticipated average 190 jobs created locally and 322 in the rest of the state, but this increase comes at other industries' expense. The economic assessment found that there would be lost employment in agriculture, manufacturing and mining as a result of the project.

### **Fire**

- The RFS has repeatedly expressed serious concerns about the operation of a gasfield and its burning flares in a highly flammable landscape like the Pilliga.
- The assessment estimated the likelihood of a loss of containment in the gasfield creating a fire in the Pilliga was once in 70 years. That equates to a 35% chance during the life of the gasfield, or a 1.4% chance that this will happen in any year.<sup>8</sup>
- From December 2013 to January 2018, at least 17 Pilliga bushfires have been recorded.

### **Chemicals and spills**

- The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) conducted a *National assessment of chemicals associated with coal seam gas extraction in Australia* found that 48 of 113 chemicals used in coal seam gas operations could harm the health of workers in the CSG industry that come into contact with harmful quantities of them in mixing or blending chemicals to produce formulations, or in the event of an industrial accident.
- They found that 11 of 21 chemicals used for drilling were of a potential concern for public health following a bulk spill during transport.<sup>9</sup>
- In NICNAS' survey of companies in the CSG industry eight years ago companies reported 10 incidents of unintentional release of CSG chemicals including many of the types of incidents that the assessment found can be harmful to the health of CSG workers and the broader public. In some of these reported spills and incidents, the chemicals could not be recovered.<sup>10</sup>
- There have already been more than 20 leaks and spills from coal seam gas exploration activity in the Pilliga. At the headwaters of the ancient groundwater of the Great Artesian Basin, we can't take the risk of chemical or salt leakage, accidents and spills.

### **Greenhouse gases and climate change**

- Total greenhouse gas emissions produced by the project could be 127.8 million tonnes of carbon dioxide equivalent, or 5 million tonnes a year. In a time when Australia is struggling to meet its commitments under the Paris Climate Agreement, this one gasfield would *increase* Australia's greenhouse gas emissions by nearly 1% per year!
- Bizarrely, the Department describes this addition of greenhouse gases to the atmosphere as "driving down NSW GHG emissions and working towards a low carbon future."
- Globally, the UN Environment Program's *Production Gap Report* in 2019 found that, "With average lifetimes of 20 years or longer for pipelines, terminals, wells, and platforms, the time to begin planning for a wind-down of gas production is, as with other fossil fuels, already upon us."
- Their report found that to achieve the Paris Climate Agreement goal of keeping average global warming well below 2 degrees, global gas production needs to peak by 2030 and decline after that. To meet the safer 1.5 degrees warming limit, gas production needs to peak this year.<sup>11</sup>

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<sup>8</sup> DPIE. June 2020. *Assessment Report Narrabri Gas Project*, Appendix E5.

<sup>9</sup> NICNAS *National assessment of chemicals associated with coal seam gas extraction in Australia*. Technical report number 13: Human health risks.

<sup>10</sup> NICNAS *National assessment of chemicals associated with coal seam gas extraction in Australia*. Technical report number 7: identification of chemicals associated with CSG.

<sup>11</sup> UNEP, *The Production Gap Report*. 2019.