

Narrabri Gas Project Submission

Response to: Santos Submission to IPC following public hearing

I object to the Narrabri Gas Project due to the risk of bushfires, among many other issues.

14. Hazard & Risk: Bushfires & Flaring

14.1 Climate change & Bushfire Risk Analysis

Santos refers to their EIS published in early 2017. (EIS 25.2.3)

- *the likelihood of bushfire ignition from a Project related activity was remote; and*
- *the overall risk was assessed to be medium given the potential consequences associated with bushfire*

At that time bushfires had occurred in forested parts of the project area on average every 9 years in the past, and the project was to run for 25 years. The risk was relatively high even then.

March 2015 – Three Fires in the Pilliga¹

January 2016 - Lightning strikes sparked three separate fires 30 km from Coonabarabran²

January 2018 - A bushfire burnt nearly 594 square kilometres of the Pilliga Forest³

January 2020 – Bushfire approx. 400m from gas well⁴ See satellite image from my first submission

Since the EIS was released we have experienced bushfires in a changing climate. Have the overall risks been assessed again since these fires?

The RFS's ability to fight fires is improving, but the frequency and numbers of fires in the state and around Australia is increasing. During the last bushfire season, equipment and fire fighters were not available to fight forest fires when houses were threatened elsewhere.

In 11.8 Koala - Santos claims “few koalas have ever been found in the north-east Pilliga. The vast majority of Koala records are in the central and western Pilliga areas supported by more productive soils, **fewer fires**, and greater access to permanent water along major drainage lines.”

14.2 Bushfire Impacts on Project Infrastructure

The assessment of fuel load does not take into account any additional load from gas leaks from infrastructure.

14.3 Risk to NSW Rural Fire Service & Forestry Corporation of NSW in the event of bushfire

¹ <https://www.theland.com.au/story/3369461/widespread-bushfires-in-pilliga/>

² <https://www.nbnnews.com.au/2016/01/15/fire-crews-continue-to-battle-pilliga-fire/>

³ <https://earthobservatory.nasa.gov/images/91634/bushfire-in-pilliga-forest>

⁴ <https://www.dailyliberal.com.au/story/6575456/part-of-newell-highway-closed-due-to-bushfire/>

Where are fire detection cameras placed? Are they on the Pilliga Forest Lookout Tower in all directions? Or are they only at gas assets and are all assets covered?

How long does it take to depressurise downstream infrastructure?

14.4 Firefighting equipment impacting Project infrastructure

What is the minimum depth for burying steel pipelines or are they mostly above ground?

14.5 Flare Design and Operation

During major bushfires or wildfires, ignitable debris can be carried several hundred metres to tens of kilometres downwind starting spot fires, according to the CSIRO's *Drivers of long-distance spotting during wildfires in south-eastern Australia*.⁵

14.6 Ignition probability understated due to climate change

"There are no known incidents within the CSG sector causing large scale bushfires."

An engine fire at a coal seam gas well near Chinchilla was extinguished by workers and Queensland Fire and Emergency Services while on the same day multiple fire crews worked with coal-seam gas workers to control a fire which broke out on a gas line west of Dalby in December 2015.⁶ If these fires occurred in December 2019 the story may have been very different.

"Various considerations and mitigation measures" by Santos "to prevent escalation beyond the site boundary" will be of little use in extreme or catastrophic fire conditions. When bush fires occur in these conditions they are extremely difficult to control and extinguish as seen in 2019/20.

"the wellsite infrastructure is located within the vegetation controlled 100m x 100m lease area, such that the distance to the fence line from any release point is larger than ~37.5m;"

The following photos show "progressive rehabilitation" which is "proposed to be undertaken immediately following construction," supposedly limiting "the fragmentation associated with the Project" so it is not likely "to inhibit dispersal of any species, including Pilliga Mouse. Refer 11.4 Fragmentation

⁵ <https://www.publish.csiro.au/WF/pdf/WF19124>

⁶ <https://www.thechronicle.com.au/news/firies-battle-gas-line-blaze-western-downs/2862819/>



Progressive rehabilitation of a well site



Zooming in on the well site shows trees planted very close to the well

Progressive rehabilitation will limit the clearing aspect of defragmentation, but may well create a fire hazard. Trees planted near gas wells and ignition sources will grow closer and increase the risk of a fire spreading rapidly.