

1. The Narrabri Gas Project risks Australia's precious water sources, including the Great Australian Basin—Australia's largest groundwater aquifer

Australia's future health and prosperity depends on the availability of safe and clean water. 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. In a worst-case scenario, the water removed for CSG extraction could 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.¹

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.

2. The Narrabri Gas Project already has a long history of spills and leaks of toxic CSG water—Santos cannot be trusted to manage the project safely

Santos has already contaminated a freshwater aquifer in the Pilliga with uranium at levels 20 times higher than safe drinking water guidelines, as well as lead, aluminium, arsenic and barium². In addition, there have been over 20 reported spills and leaks of toxic CSG water from storage ponds, pipes and well heads. Santos cannot be trusted.

3. The Gamilaraay Traditional Custodians are opposed

There are hundreds of cultural sites as well as songlines and stories connecting the Gamilaraay to the forest and to the groundwater beneath. Gamilaraay people are deeply involved in the battle against CSG, and have told Santos they do not want their country sacrificed for a coal seam gas field.

4. Farmers and other local community oppose the project

Extensive community surveys have shown an average of 96% opposition to CSG. This stretches across a massive 3.2 million hectares of country surrounding the Pilliga forest, including 99 communities. Hundreds of farmers have participated in protest actions unlike any previously seen in the region. Along with gas wells come roads, pipelines, tracks, compressor stations and water storage ponds – which altogether results in an industry which spreads out across the landscape and carves up rural landscapes into giant industrial zones which then become impossible to farm. Property values also plummet.

5. The Pilliga is a threatened wildlife haven

The Pilliga is one of 15 nationally listed 'biodiversity hotspots' and is vital to the survival of threatened species like the Koala, Spotted-tailed Quoll, Black-striped Wallaby, Eastern Pygmy-possum, Pilliga Mouse and South-eastern Long-eared Bat. The forest is home to over 200 bird species and is internationally recognised as an Important Bird Area². The Santos gasfield would fragment 95,000 hectares of the Pilliga with well pads, roads, and water and gas pipelines—damaging vital habitat

and threatening the survival of endangered species.

6. Climate change is dangerously affected by Coal seam gas

Methane is by far the major component of natural gas, and is a greenhouse gas 72 times more powerful than CO₂. CSG fields contribute to climate change through the leakage of methane during the production, transport, processing and use of coal seam gas.

7. Human health is compromised by coal seam gas

A range of hydrocarbons and volatile organic compounds can be released into the air from coal seam gas operations, including flaring of gas wells. The effects of volatile organic compounds vary, but can cause eye, nose and airway irritation, headache, nausea, dizziness and loss of coordination⁴. There is also the issue of serious noise pollution. These impacts have been documented in human populations nearby to existing gasfields in Queensland, Sydney and in America.

8. The nation's premier optical astronomical observatory Siding Springs is at risk

The Siding Springs Observatory, situated in the Warrumbungles and adjacent to the Pilliga, is under threat from the Narrabri Gas Project due to light and dust pollution⁵. The area has been internationally recognised as a 'dark sky park'⁶ and the 50m high gas flares proposed by Santos threaten the viability of the facility.

9. No solution for disposal of the thousands of tonnes of salt waste which will result from the project

Santos has no solution for disposing of the hundreds of thousands of tonnes of salt that will be produced. Between 17,000 and 42,000 tonnes of salt waste would be produced each year. This industry would leave a toxic legacy in NSW.

10. Methane flares would increase the risk of fires under the Pilliga's tinder-box conditions

Methane flare stacks up to 50m high would be running day and night, even on total fire ban days. The Pilliga is prone to severe bushfires. The project would increase ignition sources as well as extracting, transporting and storing a highly flammable gas right within this extremely fire-prone forest.

¹SoilFutures Consulting 2014, *Great Artesian Basin Recharge Systems and Extent of Petroleum and Gas Leases*. <http://www.gabpg.org.au/wp-content/uploads/2014/11/GAB-Report1.pdf>

²<http://www.smh.com.au/environment/santos-coal-seam-gas-project-contaminates-aquifer-20140307-34csb.html>

³BirdLife International (2017) Important Bird Areas factsheet: Pilliga <http://www.birdlife.org>

⁴Marion Carey Doctors for the Environment Australia (DEA), Air pollution from coal seam gas may put public health at risk The Conversation, November 20, 2012

⁵<https://www.theguardian.com/science/2014/oct/21/siding-spring-observatory-threat-coal-seam-gas-light-pollution>

⁶<http://darksky.org/first-dark-sky-park-in-australia-designated/>