

The Senate Committee Enquiry  
Murray-Darling Basin

Dear Committee Secretary,

**RE: Murray Darling Basin Plan**

We represent the small agricultural community of Bunnan in the Upper Hunter Valley, NSW. The Coal Seam Gas Company Santos has been in this district for over a year negotiating clandestinely for access to properties for coal seam gas exploration. They have plans for 7 bore holes and have already sunk 3.

The surrounding area is highly productive agricultural land based on the Wybong Creek, but includes the Dartbrook, Gibbergunyah and Halls Creek. These all drain into the Goulburn and then into the Hunter River. The Hunter- Central Rivers Catchment Management Authority acknowledges that this area is a vital major pristine watershed for the Hunter River. It is essential for the quality and quantity of run-off to the Hunter, which is absolutely vital to the population in the Lower Hunter.

We strongly feel there are multiple reasons why exploratory drilling for CSG and extraction should not be undertaken specifically in the Bunnan region and generally in the Upper Hunter. These basically are: the value of the agricultural production of the area and its environmental assets for the Hunter Valley and the inherent dangers involved in the process of exploration/ extraction of coal seam gas.

Bunnan is the centre of a major agricultural area; it is blessed with self mulching black basalt volcanic soils of very considerable depth. Our soil quality is recognised as being of a standard equal to the best- Liverpool Plains, NSW and Darling Downs, Queensland. Being at the top of the watershed of the Goulburn and Hunter Rivers we have pristine surface water but not in reliable quantities. Hence we rely almost totally for our water needs for stock and domestic use and agricultural needs, on subterranean water.

Bunnan at the extreme top of the Hunter valley is the one hope of the prospect of achieving the Greater Eastern Ranges initiative of biodiversity bridging the Hunter Valley- from the Greater Blue Mts. World Heritage Area to The Greater Eastern Rainforests World Heritage Area (Wollemi to Barrington) and (Atherton Tablelands to the Alps). The Hunter Valley south of Bunnan to the coast is now completely disrupted by open cut coal mines. We are the last hope for this project coming to fruition.

The town of Bunnan and its residents, are dependent on aquifer water by bores and all agricultural pursuits are reliant on reliable supplies of high grade water; this with the fertile soil and the climate is the basis of our success and in fact, our existence. Because of the porosity of basalt soil, dams are inefficient; our surface water is unreliable hence

all our water is obtained from subterranean aquifers. This, until now, has been used very judiciously by individual landholders, recognising that, as the aquifer flows beneath us, this is a shared resource. It is not the property of any one landholder and certainly not of individual industrial companies.

No water analysis study has been done in our area and yet drilling has begun. There has been no routine analysis of organic carbon (hydrocarbons) in the produced water and no mapping has been done to reveal the interconnectivity of the underground aquifers. They are just blindly drilling and hoping there will be no problems. The science of the process used by Santos has not yet been proven and we cannot risk the permanent destruction of our water and our land.

It has been consistently shown world wide (USA and Chinchilla Q) that the aquifers are inevitably affected by the process of CSG extraction and more so if the fracking process is used. Santos has stated absolutely and consistently that they will be 'fracking'. The chemicals used are so dangerous that the entire process of fracking has been banned in France and Switzerland and other countries are considering doing the same.

The produced water pumped out of the coal seam gas well, is toxic, extremely saline and contains a very broad range of carcinogens, heavy metals as well as man-made chemicals used in the drilling and fracking process. In the Surat Basin (Q) a million tonnes of salt each year is brought to the surface by coal seam gas drilling. The large volume of water produced has to be stored or transported away from the site by road and by many heavy vehicles. Storage occurs in toxic ponds which have been shown to have been breached by flooding, or mishap.

Water quality is a vital issue. If we do not have intact, unpolluted aquifers, the area from Scone to Merriwa and beyond, will be a useless, uninhabitable area. At least one of the aquifers affected by the drilling in this region extends north 250 km to Gunnedah and no effective aquifer mapping has ever been done. The Wybong Creek Catchment and associated creeks ( Dartbrook, Gibbergunyah and Halls creek) are regarded by the Hunter- Central Rivers CMA as vital for the health and viability of the Goulburn and the already at risk, Hunter River. The Lower Hunter Valley depends on the intactness of this pristine Catchment for its long term survival.

The two industries-grazing/ agriculture and coal seam gas- are incompatible. They cannot co-exist. We have very little prime grazing and farming land in Australia and this should be permanently zoned 'non -industrial' to safeguard its integrity and preserve its productivity for this and future generations.

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David Stevenson  
Secretary "Save Bunnan Inc"