

Attn: Executive Director, Resource Assessments  
Department of Planning and Environment  
GPO Box 39  
Sydney NSW 2001

**Dear Sir/Madam**

**This is a submission to the Narrabri Gas EIS.**

**I object to this project and believe the Department should reject it.**

I object to the Santos proposal to construct the largest ever development of this kind under the NSW planning system because the adverse effects completely outweigh any perceived benefits.

I am a retired civil engineer with experience in the environmental field.

I am committed to preserving the natural environment and ecosystems from aggressive mining companies that fail to consider the "other side of the coin" in their rush exploit Australia's natural resources.

I have friends who live nearby to the Pilliga Forest and am concerned not only for their quality of life but also for their continued enjoyment of the natural beauty of this area. It goes without saying that I am also deeply concerned for the environmental integrity of the Great Artesian basin and the Pilliga Forest in general.

I object to the proposal on the following grounds:

#### **The potential impact on the Great Artesian Basin**

The project will remove nearly 40GL of groundwater from the aquifer that lies beneath the Pilliga Sandstone layer that forms part of the Great Artesian Basin (GAB) recharge area. The Environmental Impact Statement (EIS) submitted by Santos states that the project will result in a loss of water from the GAB recharge aquifer over the duration of the operation of the project and probably well beyond that. The GAB is already adversely affected by the drawdown of aquifers in Queensland where Coal Seam Gas (CSG) extraction has run amok for years.

The GAB is such a valuable, and ancient, resource that any proposal that jeopardises its existence must not only be questioned in more detail but ultimately be prohibited by any NSW government that professes to care for our natural environment.

Drilling down through the GAB to get to the coal seams risks not only punching irreparable holes in the bottom of the Basin allowing its clean water to drain away but also risks creating irreparable avenues for contaminated water from the coal seams to migrate to the GAB and contaminate its pristine water.

The GAB is too valuable a natural resource to all of Australia to be threatened with permanent harm in this way. Santos' proposed 850 wells puncturing the GAB must never be approved.

#### **Disposal of produced salt**

While the contaminated water removed from the depressurised coal seam is proposed to be fully treated by Santos this leads to the problem of disposal of the vast quantity of salt that will be

produced. The gas fields are expected to produce, at peak operation, approximately 115 tonnes per day. This equates to approximately 42,000 tonnes of contaminated salt per peak year needing disposal. Alarming, Santos' simply states that the problem can easily be addressed through the salt being placed in landfill. This belies the enormity of the problem and the inherent risks of contamination of soil and aquifers at the disposal site.

By my calculations (see Appendix A at the end of my submission) if an average rate of production of only 20,000 tonnes is assumed per year, the anticipated 25 year life of the project will result in a total volume of granular salt that would more than fill Martin Place in the Sydney CBD, from Macquarie Street to George Street, to the height of the Reserve Bank building.

You personally need to stand at the top of Martin Place and look down the hill all the way to George Street to visualise it filled to the height of the Reserve Bank on your left to realise that this would be a vast volume of salt.

I contend that such a huge volume of contaminated salt (contaminated with heavy metals and radioactive minerals) cannot be easily committed to landfill without there being serious consequences to the environment wherever such a disposal site might be declared.

It is inconceivable that Santos can effectively deal with this volume of dangerous salt in an environmentally sensitive way.

On this ground alone the proposal should be refused.

### **The lack of detail**

The EIS submitted by Santos lacks enough detail to thoroughly evaluate the proposal let alone fully determine the environmental impacts. There is no way of evaluating where the proposed 850 wells are to be constructed or how the connecting roads and pipelines are to be formed up. If approval were to be given to such a vague proposal Santos would effectively be given a blank cheque to destroy the Forest wherever and however it pleased.

Moreover, the willy-nilly construction of access roads and pipelines will break up the Forest into small unconnected parcels of land that will destroy wildlife corridors, reduce the 95,000 hectare development area to a patch work quilt and create a network of tracks for the unpreventable spread of weeds and invasive plant species.

Santos' promise of a future "Field Development Protocol" to decide where the wells will go afterward must not be approved. Such a significant development proposal as this should never be assessed this way.

In summary, I oppose this development proposal and ask that it be refused in its current form.

Yours sincerely

**Peter Donley**

**1 Tallarook Place**

**Bangor NSW 2234**

## **Appendix A**

Expected life of the project = 25 years.

Assuming an average 20,000 tonnes/year = 500,000 tonnes over the 25 yr life of the project.

Granular salt has a bulk density of 0.58 tonnes/m<sup>3</sup>

500,000 tonnes therefore occupies 862,068 m<sup>3</sup>

Width of Martin Place = 33m (aprox)

Length of Martin Place (Macquarie to George Streets) = 462m (aprox)

Height of Reserve Bank = 49.99m (= 164 feet above street level from on-line documentary at Reserve Bank web site <http://www.rba.gov.au/education/resources/multimedia.html>)

Therefore volume of Martin Place to height of Reserve Bank =  $33 \times 462 \times 49.99 = 762,147 \text{ m}^3$

Volume of salt (862,068 m<sup>3</sup>) exceeds volume of Martin Place (762,147 m<sup>3</sup>)