

**Submission
No 245**

INQUIRY INTO COAL SEAM GAS

Organisation: Mullaley Gas Pipeline Accord

Date received: 6/09/2011

6th September 2011

The Director

The General Purpose Standing Committee No 5

Parliament House

Macquarie Street

SYDNEY NSW 2000

Dear Sir

Submission for the Inquiry into Coal Seam Gas.

On behalf of the Mullaley Gas Pipeline Accord and the farmers of the Liverpool Plains, I thank the General Purpose Standing Committee for the opportunity to make this submission into the Inquiry into Coal Seam Gas.

The Mullaley Gas Pipeline Accord (MGPA) was formed some months ago to protect the Liverpool Plains against the development of inappropriate Coal Seam Gas (CSG) infrastructure. There are significant health and safety issues associated with pipelines in particular which also severely impede upon farmers' rights to conduct both long term and daily business activities. The soils of the Liverpool Plains, noted for their high fertility and their ability to hold water, are highly erodible and infrastructure such as pipelines result in erosion and interfere with the natural water flows of the slopes and plains of the Namoi Catchment. Such impacts will severely limit production of the Liverpool Plains. Growing recognition of the importance of food security and world-wide groundwater depletion issues has led to huge groundswell of support, not just from the farmers and communities of this region but from many communities all over Australia.

The Liverpool Plains is located in the Namoi Catchment which is a significant contributor to the Murray–Darling Basin. Issues raised in this submission relate primarily to the impacts of CSG infrastructure on the unique geology of the Liverpool Slopes and Plains.

I thank the committee once again for the opportunity to make this submission. Please do not hesitate to contact me to discuss this paper.

Yours faithfully

ROSEMARY NANKIVELL
MULLALEY GAS PIPELINE ACCORD.

Executive Summary.

The development of the CSG industry requires large amounts of infrastructure which will severely impact upon farmers' ability to conduct farming activities. Infrastructure such as pipelines will intersect farming land and effect farmers located far from established gas fields. Pipelines will interfere with the daily running of the properties and impose severe financial hardship on landowners by impacting upon the value of the land. Farmers generally have long relationships with various banks who may no longer find some farmers' level of debt acceptable if a 12% - 22% devaluation of their land occurs. Landholders' property rights have been dismissed in this mad rush for CSG. Given the many pipeline "incidents" which have occurred in the USA pipelines threaten not only farmers' lives but the health of their stock and agricultural production.

Pipelines also involve compressor stations which are large noisy constructions. Overhead powerlines are required to run these compressor stations. It is usual for pipelines to have "shunts" located at strategic intervals along the pipelines. This enables the pipeline to be vented to prevent the build up of methane gas within the pipeline thus releasing pressure. Salty contaminated water is also released from underneath the pipeline. This prevents the accumulation of salty contaminated water creating friction within the pipeline and the build up of heat leading to possible explosions. The release of salty toxic water and methane will severely impact upon not only native vegetation but the health of livestock and crops. Some of this contaminated water will find its way into the underlying aquifers.

The Liverpool Plains are prone to bushfires which are primarily controlled by small bands of local farmers. During the hot dry summer months when most paddocks are covered in ripe highly combustible crops like wheat and barley any explosion and resulting fire will cause colossal damage. Given the weight limits imposed by pipeline owners, heavily loaded water carrying vehicles will have their access restricted and inhibit farmers' right of way to defend their properties. Likewise the movement of heavily loaded grain trucks and farm machinery will also be restricted in their movements thus inhibiting the farmer's ability to carry grain and produce to storage facilities or markets.

Introduction.

Currently Eastern Star Gas is seeking approval to build a pipeline across the black floodplains and slopes of the Liverpool Plains from Narrabri to Wellington. This area is known as Cox's Creek Flood Plain and, along with the Mooki Flood Plain and surrounding slopes, make up the Liverpool Slopes and Plains. This area is prime agricultural land and recognised by many to be the best farming country in the world.¹ The farmers in this area are well respected for their innovative and precise farming practises. The Liverpool Plains is renowned for its diverse range of high yielding food and fibre crops and yields 40% above the national average. It is also noted for its beef industry as well as other meat products. This area, unlike most parts of Australia produces two crops a year.

This unusual productivity, along with a mild climate, is due to the fertile, self-mulching black soils which have a high water retention characteristics. These soils erode easily and farmers have spent generations and many millions of dollars protecting these soils and working them to achieve maximum long term productivity. As "self – mulching" soils they are constantly moving and turning over making the development of any type of infrastructure an expensive and careful exercise. These soils are also prone to wide scale flooding, up to 2 metres in depth across much of these plains. (See attached photo.)²

Pipeline Concerns – comparison with the existing Central Ranges Pipeline.

Infrastructure has to be carefully constructed in areas that are elevated or on soils of lesser quality. Presently, the route for the proposed pipeline by Eastern Star Gas from Narrabri to Wellington runs through much of these fragile flood plains and surrounding slopes on the Cox's Creek floodplain.. The community fears that this pipeline will have the

¹ <http://www.youtube.com/watch?v=zFGrASdjlX4>

² Photo of 2004 flooding. Similar photos available of 2010/2011 floods.

same, or more severe, safety and environmental issues as the existing Central Ranges Pipeline.

The Central Ranges Pipeline is built on similar soils near the project area and is less than a quarter of the diameter and buried twice as deeply as the proposed Narrabri to Wellington pipeline. This pipeline has resulted in severe erosion problems in at least eight instances in the immediate area alone. Some rehabilitation has been undertaken by the Soil Conservation authorities but it has yet to be proven if this rehabilitation will be successful. It is doubtful if the rehabilitation of the native vegetation on other eroded areas will be maintained.

The site depicted in the attached photo³ has been recently repaired. Damage occurred in October 2010 with little attempt by the company responsible to mediate the problem until July this year. This photo is a good example of what happens when infrastructure is located on “self-mulching” soils – as the soil turns itself over so the pipeline will “rise” to the surface causing stresses to the pipeline and irreparable damage to surrounding country. During the last month, approximately eight months after the initial damage, repairs have commenced. Over 2800 – 3000 tons of rocks have been trucked to one site alone.³

Accessibility.

Pipelines, particularly high pressure pipelines, should be located in areas which are easily accessible at all times. When this area has received a small amount of rain – even 5mls - farmers are forced to cease all farming activities and wait at least a day before farming can continue as it is impossible to access the paddocks without damaging the surfaces of these flat plains with wheel marks or indeed becoming “bogged” and causing long

³ Federal Politician Tony Windsor at eroded site. (attached).

term damage to the plains by creating gullies and washes. During wet periods it is extremely difficult to access infrastructure to perform emergency repairs. Initial repairs involved the closing of the adjacent highway and sandbags being dropped into place from a helicopter. The landholder was not notified of these repairs being undertaken. The local Warrumbungle Shire Council provided the workforce which raised considerable issues as the employment of these people violated Occupational Health and Safety Guidelines. This pipeline was simply not accessible by vehicle for repairs

Existing pipelines (including stock water and irrigation pipes) and other associated infrastructure are known to move with the natural movement of the soils and fluctuations in ground water levels. At times the proposed pipeline would be on the watertable which would lead to corrosion and the weakening of the pipeline.

Such is the fragility of the Liverpool Plains soil that the local Catchment Management Authority (CMA), after two years of consultation with farmers and soils scientists, experts, developed a Floodplain Management Plan to establish guidelines for responsible management to prevent erosion.⁴

Access constrained by Gas Pipelines.

During the summer period, this area is prone to bushfires. These fires are handled by small local bushfire brigades run by farmers. The massive

⁴ 4 Draft Flood Management Plan for the Upper Cox's Floodplain – Bundella to Mullaley 1997 Nov 1997 DLAWC Specialist Coast and Flood Services (Cam 1133).

pipeline explosions,⁵ as experienced in the United States would be impossible to control. Many bushfires in the Pilliga especially have raged for days burning vast tracts of land. Although different in terms of vegetation cover, it is relevant that over 185,000ha land was burnt out in less than 18 hours – such was the heat and prevailing winds. Paddocks of ripening wheat and barley, during the dry summer seasons, may burn nearly as wildly - endangering not just communities and property but also native flora and fauna. This pipeline will also bring about the introduction of wells and infrastructure – surely creating an highly explosive situation. Recent programmes such as Four Corners have highlighted the leakages associated with pipelines and well heads. Given that approval for the Gladstone Project involved a well for every 4.46 ha, the construction and maintenance of infrastructure will provide a highly combustible environment as well as severely impact upon farming practises of the Liverpool Plains.

It also significant that the United States has had nearly 3000 pipeline “incidents” – some of which resulted in loss of life.⁶ This clearly signifies the need for pipelines to be located in easily accessible areas.

Detection of Gas Leaks and impacts upon vegetation.

In Queensland gas leaks in pipelines are detected by “flying the pipeline” – helicopters are used to spot leaks indicated by dying vegetation along the pipeline. Pipelines also use venting – gas is released to prevent the build-up of pressure in the pipeline. Such escapes of methane would destroy native vegetation and natural

⁵ http://www.msnbc.msn.com/id/41529771/ns/us_news-life/t/massive-gas-explosion-rocks-ohio-countryside/

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grasses as well as destroy adjacent crops. Saline water collected along the pipeline is also released – again detrimental to crops, grasses and trees.

Use of Stock Routes.

The proposed use of stock routes again presents problems. Many sections of stock routes are located far away from roads and are not easily accessible. ESG claim that they will have to clear a proposed “40 metres” for Right of Way (ROW) with additional work areas. This width alone would negate and destroy the majority of stock routes. Some portions of stock routes are adjacent to private land. Hence a ROW and additional work area would pose a significant problem for stock route users and adjoining landholders. Furthermore, stock routes have been maintained by the farmers with some assistance from the local LHPA (better known as the Rural Lands Protection Board) over many years and represent much untouched biodiversity. In a country such as Australia, the “long paddock” provides much needed drought assistance to others in drought affected areas. For the State, these stock routes are a more viable alternative for drought assistance as well as maintaining the strong heritage and traditional values of Australians. Stock routes are often located far away from public roads which limits accessibility.

Accessibility is the key to maintaining and monitoring pipelines and is essential for safety issues.

Although the pipeline is not expected to make impacts on the underground aquifers, most erosion from the pipeline has occurred when crossing gullies and other waterways. Given the huge infrastructure required to mend these eroded areas⁶, it is inevitable that natural waterways will be interfered with and create different waterways and washes within the area. Our seasonal rainfall leads to wide spread flooding on the alluvial plains and the type of rehabilitation mention in this report will

cause gullies to split and erode. The cumulative effect may have severe impacts upon the livelihoods of farmers, government infrastructure and the catchment basin.

6 See attached PDF document.

Conclusion.

Proposals to build pipelines of this calibre serve clearly interfere with a farmer's long term development of his property. Pipelines need to be located in areas which are easily accessible for repairs and maintenance. Current publications from ESG suggest that heavy vehicle movements over the pipeline easement should be restricted for reasons of safety and public liability. This is not possible for a farm to do so and operate efficiently.

It is common for pipelines to change ownership – so issues of accountability and responsibility for the operation of the pipeline becomes blurred as the pipeline changes ownership.

ESG have indicated that landholders may be liable should the pipeline sustain any damage as a result of normal farming activities. This is an unfair imposition on any farming enterprise with possible damage resulting in many millions of dollars.

There is an alternative route available along the Newell Highway where the lighter soils are better suited to such a construction. It is an area well suited to pipeline construction as it is easily accessible and traverses through major towns. These towns may well want to tap into a cheap supply of energy – yet ESG has made no attempt to examine this route. Much has been made of the development of CSG being of “state significance” yet it is clear that this gas will be used for export and will not be consumed by the people of NSW. A “royalty holiday” has been granted to gas companies. The state government of NSW have deemed that gas companies do not have to pay royalties for the

first 5 years from production – and then those royalties are staggered eg 1% in the first (sixth) year 2% in the next year etc. . This has been an extraordinary ill-advised decision – many gas wells do not continue to produce gas after the first couple of years. Of course there are gas wells that will produce and continue to produce over a period of 20 years or so – but this is the exception rather than the norm.

Rehabilitation.

I have studied many reports and proposals for the CSG industry. No mention has been made as to how to “decontaminate” an aquifer or what this industry intend to do with the many millions of tons of salts extracted. Of concern is the ongoing maintenance of wells and pipelines. The industry claims it will cement the wells after it has finished producing. They will care for the well for the **duration of the project**. Yet over the last 150 years of production in the USA for both oil and gas wells, companies have not maintained the 11,000,000 wells. Steel rusts, cement deteriorates. Given that the Liverpool Plains is adjacent to the still active Hunter-Mooki fault line seismic activity will cause the earth to move and the integrity of the well will be threatened. Authorities in the USA have now been left with an on-going expense of plugging and re-plugging these wells and recent figures claim to be in the vicinity of \$100,000 per well. This will no doubt impact severely upon the perceived benefits of the CSG industry.

Conclusion.

In conclusion, there is little joy in the CSG industry for the farmers. It is clear that this short-term, environmentally destructive industry will severely impact upon the farming practises of the Liverpool Plains. Why is this country –

considered to be the best, safest and most reliable food producing country in Australia - being sacrificed for a short-term industry with a dubious environmental record? Australia simply cannot afford to lose these prime food producing areas to this short term destructive industry.



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