

Personal Submission Cr Andrew McEwen South Gippsland Shire Council

South Gippsland and Bass Coast are a part of a premier dairying and agricultural district in Australia. Agriculture and associated tourism is valued in both shires in excess of \$1.5b. The districts in recognised by CSIRO and other bodies as one of the few climate secure districts in southern Australia. Both the National and State Governments have identified growing opportunities for value added agricultural produce and exports to Asia and implicitly recognise the role of areas such as ours. It beggars belief that the allure of short term (10-20 years at best), as yet unproven benefits would put at risk a return of \$1B plus in perpetuity.

Southern Gippsland, should like Margaret River, be made exempt under the legislation of CSG, Coal mining and fracking to protect its ongoing contribution to Vittoria and Australia.

Background

There is a growing body of peer reviewed scientific evidence that there are serious risks and consequential issues involved in CSG and fracking operations. There is considerable community angst and opposition because of the risks to water and farming. Nine communities in South Gippsland have already declared themselves CSG Free, with over 90% signing these declarations. This represents 15% of the adult population.

A number of governments globally have banned fracking, or placed moratoriums on it or provided for exclusion zones to protect prime agricultural and environmental landscapes. Prime agricultural land, particularly climate secure farming district should be made exempt from CSG and fracking as has occurred elsewhere in Australia.

Economic Risks and Rewards

Potentially for CSG & fracking will affect sectors, which are valued at \$1.3b or 49% of the economy, and employ 4,472 people or 47% of all jobs. Agriculture, food manufacturing, tourism and housing construction could be badly affected. Agriculture & food manufacturing can be affected by adverse impacts on land, water, livestock and brand reputation. Industrialising our landscape would be a significant turn off for tourism. Our housing and construction industry is driven by the 60% all housing being built as second lifestyle homes, with 60% of the being in smaller towns and rural areas. This market would be seriously affected by adverse publicity and industrialising landscapes. The tourist market and second home market would be potentially devastated.

South Gippsland Shire Sectors of Economy Potentially Affected by CSG			
Sector of economy	GDP \$m's	Employees	% of Economy
Construction.	132	312	5%
Agriculture.	460	2490	17%
Tourism.	250	1900	9%
Food Manufacturing.	476	770	18%
Total.	1318	4472	100%
Percentage.	49%.	47%	

Source Remplan and Urban Enterprise Report 2010

We are playing a potential ‘game of dice’, gambling on unproven marginal potential benefits of CSG against significant risk of permanent losses to production, housing and construction and tourism. A 10% impact would lose \$131m and 447 jobs. The danger is with our health, an industrialised landscape, permanent damage that could occur to aquifers, soil and water quality along with reputational brand damage to tourism and for food from South Gippsland.

The NSW Chief Scientist argued last year that the ‘Precautionary Principle’ should apply given that there is sufficient evidence that there are risks associated. Since her report there have been a rapidly growing number of peer reviewed scientific articles raising and confirming concerns. We are potentially trading off know benefits against unknown risks, costs and short term ill defined benefit. The industrialisation of the landscape will dramatically change our landscape and indeed our lifestyle. The recent US EPA report on fracking, when analysed in depth, admitted that aquifer damage had occurred and could occur in the future. Similarly the heavily reacted original UK DFAT report, when released through court action recognises the seriousness of these risks.

Of particular importance in geologically active areas like South Gippsland is the now documented impact of a multitude of small and larger earthquakes caused by fracking by US Geological Survey, also a range of US universities and recent Supreme Court’s decision in Oklahoma of the right of people to sue fracking companies. Oklahoma has no history of being seismically active, but has suffered hundred of seismic events that have caused damage and are up to 3 on the Richter scale. This could be calamitous for South Gippsland, which is already seismically active and could add 1-2 on the scale to events. Similar reports have come from Switzerland and for Cardiff in Wales and across USA.

Given that the Richter scale is a geometric scale, a 1-2 point rise would lead to considerable damage to property.

Issues Identified

A recent report (A literature review, documents 337 references with 117 peer reviewed articles or official reports) on current research by Concerned Health Professionals of New York concludes that:

“...as fracking operations have increased infrequency and intensity, a significant body of evidence has emerged to demonstrate that these activities are inherently dangerous to people and their communities. Risks include adverse impacts on water, air, agriculture, public health and safety, property values climate stability and economic vitality.....A growing body of peer-reviewed studies, accident reports, and investigative articles is now confirming specific, quantifiable evidence of harm and has revealed fundamental problems with drilling and fracking.”

Twelve major serious concern area have been identified (see Appendix One)

Broader Strategic Issues

The Precautionary Approach to Protect Agriculture

We have got a choice to make in regard to as yet unproven potential short terms gains of CSG (10-20 years) vs. long term gains in perpetuity of agriculture and tourism. Agriculture is the lifeblood of the economy and is fundamental to our economy & Victoria because of our climate secure rainfall.

The issue of gas prices and supply is a furphy:

Gas prices are increasing, as we reach market parity with International/Asian prices. The argument that CSG fracking for gas will reduce gas prices is disingenuous and simply factually incorrect. There is also up to 30 years supply of gas in Bass Strait. The issue is the price not the supply. Carbon Tracker report release early in July suggests that demand to 2030 may be overestimated by up to 50%. This view has been confirmed as plausible by the Grattan Institute. CSG will not reduce cost of gas which is tied to the Asian benchmark price!

Overselling of benefits

The actual results of production from fracked wells are dramatically lower than was estimated. Wells in USA are on average are 80% depleted after 3 years. There has been a dramatic write down of the estimate for gas reserves by US authorities. BHP Billiton has written down their CSG gas reserves in USA by \$2.5b. AGL and other Australian companies are in the process of writing down their CSG assets. The supposed gas boom in the USA will have petered out by 2020. No CSG company has made money other than through the sale of reserves to larger companies. The recent Carbon Tracker report released early in July suggests that there has been a dramatic overestimation of global demand for gas and that some of Australian gas asset are potentially white elephants.

CSG and reputation risk for agriculture

The CSG dispute in a globalised and activist world runs the danger of trashing our reputation for clean and green food in Asia. At some point direct action internationally is likely given environmentalists past performance.

Philosophy of Science and the proposition that CSG s safe

Sir Karl Popper argues in the philosophy of science that science advances by conjectures (CSG is safe and can be regulated) and by refutations. One counter proposition of peer reviewed science may represent human failure or an aberration, several peer reviewed studies are interesting and one should pursue a precautionary approach, but when you have now hundreds and growing week by week peer review science indicating that the industry is causing serious problems under the philosophy of science it is arguable that the conjecture that CSG and fracking is safe is problematic in the least and probably refuted.

Conclusion

The surveys from the communities indicate that in excess of 90% of our community strongly is opposed to coal seam gas and coal mining. The previous Governments lead consultant on CSG is on record a saying that 80% of Gippsland is opposed. There is a growing body of peer reviewed scientific evidence that question the very basis of CSG operations.

We have an agricultural industry in South Gippsland valued at over \$700m and a growing reputation for clean sustainable produce vs. the potential for at best 10-20 years of returns that put in serious risk and jeopardy soils & water, industrialise our landscapes and cause harm to people's health.

While some governments are promoting it come what may, there is increasing peer based evidence of the myriad of problems from earthquakes, aquifer pollution, death of animals, impact on food, health impacts including significantly raised infant mortality in USA.

The recent US EPA when analysed in detail proves that aquifers have been affected and they are genuinely at risk. The release redacted DFAT report in UK has similar conclusions. Even the NSW chief scientist second report says that you cannot guarantee that there will not be negative co sequences.

There are serious concerns also that the depletion rate of wells will prove uneconomic with much of USA benefit needing junk bonds without returning a profits for companies.

The reality is that while some half of South Gippsland is a potential source for CSG industry, it is far from clear that there would be significant production. It is time to, as other States have provided, an exemption of South Gippsland because of its prime agricultural production and to put to bed the angst that many people are feeling. It's time for government to genuinely listen to community wishes. *We should given the stakes and risks take a precautionary approach. There is no social licence for CSG & Fracking in Gippsland and South Gippsland.*

Recommendation

That South Gippsland Shire be made exempt by the State Government for CSG and coal mining and exploration given the precautionary principle, the growing body of evidence of adverse impact and the prime agricultural nature of the area.

Appendix One

While the debate has not been finally resolved, there is a rapidly growing body of peer reviewed science that suggests there are at minimum serious concerns in regard to:

1. Water contamination

There a growing body of peer reviewed evidence that CSG fracking can be a serious risk to water quality and threaten groundwater. Of particular concern is the high rate of failure of casing of old wells that could allow for fracking chemicals to enter aquifers and pollute waterways. There is potential for drilling in South Gippsland to dissect one of the thousand of well holes.
2. Threat to agriculture and soils

Studies in USA by Cornell University and others have documented death of livestock, neurological disorder, aborted pregnancies and still births in cattle that come into contact with waste water and contamination of soils.
3. Air pollution

There is considerable evidence that air quality is adversely affected by gases such as methane and radon in gas fields which can have serious health effects. A recent U University epidemiological study in US has identified a series spike in infant mortality within 5K of fracking.
4. Radioactive releases

Radon and radium have been measure in many sites in elevated levels seriously above EPA standards for drinking water.
5. Occupational health and safety hazards

There are serious concerns about high levels of injuries and expose to silicosis in the operations of CSG fuels and wells in USA.
6. Noise and light pollution and stress

24 hour operations of field have exposed people to continuous noise and light which are proven to adversely affect health.
7. Health

There is increasing evidence of health effects and court findings against CSG companies in USA.
8. Earthquakes and seismic activity

A growing body of evidence links fracking waste water injection to earthquakes as high as 5.7 in addition to series of minor earthquakes and slippage. South Gippsland is seismically active and any such fracking risks increasing their severity and impact.
9. Flood risks

Serious operational concerns have arisen from water storage to be breached either by dam failure or flooding which contaminates soil. The huge volumes of contaminated water that have to be retained in dams and the high rainfall in South Gippsland heighten these concerns.

10. Industrialised landscapes and declining property values

While wells themselves do not take up much land, the local road and pipe network, retention dams and other facilities take up a significant land area in affect industrialising the landscape. This is compounded by the experience in USA that wells rapidly expire and maintaining production requires even more wells to be sunk. Property values in USA & Australia have been adversely affected.

11. Inflated reserves estimates and profitability

Estimates of reserves have consistently being massively reduced by US authorities contrary to the optimistic forecasts. There are growing concerns that CSG industry may be uneconomic. Revised estimates are that US CSG industry will peak by 2017.

12. CSG is not a low carbon option and several studies suggest that it is in fact almost as bad as or worse than coal as a greenhouse gas producer because of methane leakage.

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