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Parliament House, Spring St, Melbourne Vic 3002

Introduction

Our group is known as **Coal Seam Gas Free Kongwak** and we live in and around the township of Kongwak in South Gippsland. Our Committee members include farmers, business people, residents and environmentalists. Some are still working farms and running businesses whilst others are retired.

We have come together because of widespread concerns about the impact of unconventional gas mining. A group of volunteers conducted a survey of people residing in Kongwak, Jumbunna, Wattlebank and parts of Bena. The simple question put to our community was ***“Do you want Kongwak and surrounding areas to be gas field free ? ”*** They would tick a box yes, no or undecided. We then invited these people to sign the survey and provide their address details which they did. To date ***605 out of 615 people signed off that they wanted the area gas field free.*** The remaining 10 were undecided or agreed for the area to have gas fields. The survey was conducted by locals to locals and was very time consuming because of the friendly nature of country people. Many of our volunteers suffered what they called being “tea logged” because of the generosity of our community. You could not simply get a signature and go without discussing the health of neighbours, whose cows had got out on the road recently or whose family had a new baby.

It became clear from the survey and face to face discussions that the local community was overwhelmingly against unconventional gas mining.

EXECUTIVE SUMMARY

- Coal Seam Gas Free Kongwak residents surveyed 615 of their neighbours and found 605 were prepared to sign off that they wanted the area to be gas field free. The community were overwhelmingly against unconventional gas mining.
- The current South Gippsland geological survey by Geological Survey of Victoria and Geoscience Australia on behalf of the Victorian State Government will not be completed prior to the outcomes of this Inquiry. Thus the Inquiry may make recommendations based on incomplete information.
- There are respected local and international scientific figures who warn against unconventional gas mining.
- Monitoring of unconventional gas mining is inadequate and penalties for detected breaches of Licences are inadequate as demonstrated both locally and interstate.
- South Gippsland Water, other agencies and numerous individuals currently use bore water that would need to be protected in the event of unconventional gas extraction.
- Lakes Oil has already been found to have demonstrated lack of care in relation to handling of hazards situated at their Wombat 2 unconventional gas mining site.
- Accidental release of methane arising from unconventional gas mining has been a problem both here and overseas. Methane has a warming potential more than 20 times CO₂ on a volume basis.
- Land subsidence is already a huge problem in Gippsland arising from Bass Strait oil and gas extraction, with the likely subsidence up to 17 metres.
- Fonterra New Zealand has advised some farmers in that country that they will no longer take milk from farms linked to oil and gas mining. Fonterra has recently opened a local milk processing factory.
- Geoscience Australia refers to Central and South Gippsland as one of Australia's earthquake hot spots. Research from Columbia University USA has linked earthquakes to unconventional gas mining.

- Unconventional gas mining employment statistics are greatly overestimated by the industry and are not reflected as such in the mainstream ABS statistics.
- The unique registered as threatened Giant Gippsland Earthworm is likely to be adversely impacted by the unconventional gas extraction process.
- Gas prices for Victorians will not fall as more unconventional gas is mined because the price will be pegged to the international price.
- Interstate farms are larger than Victorian farms which use intensive farming methods on smaller acreage, thus mining access roads, ponds and other infrastructure are even more intrusive.
- There are energy alternatives such as wind and solar power, which the South Australian Government has clearly demonstrated are viable.

TERMS OF REFERENCE AND OUR RESPONSE

(1) The prospectivity of Victoria's geology for commercial sources of onshore unconventional gas.

Currently the Geological Survey of Victoria in collaboration with Geoscience Australia is undertaking a seismic survey throughout South Gippsland including Kongwak to acquire data to better understand the geology and groundwater of South Gippsland. Our Committee met with a Government representative and their geologist where *it was explained by the geologist that this work would be undertaken but that the analysis of the outcomes would not be available until mid 2016. This is well beyond the December 1, 2015 date for which the inquiry will make its recommendations.* Thus we have the situation where the Parliamentary Inquiry may be required to make recommendations without all the information to hand.

(2) The environmental, land productivity and public health risks, risk mitigation and residual risks of onshore unconventional gas activity.

Health Risks

David Shearman is a Physician and Emeritus Professor of Medicine at Adelaide University. He also served on the faculty of Edinburgh and Yale Universities. Professor Shearman has outlined his concerns on unconventional gas mining. "Only a minority of the chemicals used in fracking have been assessed by the National Industrial Chemical Notification and assessment Scheme."

Professor Shearman goes on "My assessment is that the State and Federal Regulations have been inadequate to deal appropriately with the inevitable demands of industry and from the needs for royalties from the States." ... "Some unassessed chemicals may be carcinogenic... Studies from

the US suggest that some contamination of water sources for humans and agriculture is inevitable and the concerns over this are evident in a report from the US Congress.”

Fracking events on Environment and Health

Common symptoms or complications among people living near fracking sites include;

- fatigue
- dermatologic irritation
- upper respiratory
- muscular skeletal
- Immunologic
- Vascular
- the risk of endocrine disruption
- changes in quality of life and sense of well-being
- burning eye
- headache
- gastrointestinal
- urologic problems
- sensory
- bone marrow
- neurological problems

It is believed that the potential health consequences of fracking begin at the onset of drilling and may last long after the operation has concluded.

Researches have described an array of environmental factors and health risks associated with fracking and other extraction processes.

These include;

- water and air contamination
- increased intensity in diesel truck traffic volume
- constant elevated noise levels
- occupational hazards
- stress within rural communities from a swelling population made up of drilling crews and related businesses.

Water

Chloe Munro then chief advisor to the National Water Commission has spoken in terms of the ***damage to the Australian water table to be fixed in millennia ie millions of years.***

Many of our Kongwak farm properties under exploration licence form part of the catchment area for the Lance Creek reservoir which supplies the major towns of Wonthaggi and Inverloch and the States Desalination Plant. Plans are underway to link the Lance Creek reservoir into the water starved town of Korumburra. Thus any pollution arising from unconventional gas mining could have serious effects on significant South Gippsland townships which in some cases such as Inverloch are inclined to double in size over the Xmas Easter holiday periods.

“South Gippsland Water, other agencies and numerous individuals currently use bore water that would need to be protected in the event of unconventional gas extraction. Depending on the local geology, water extracted during the coal seam methane production process can contain salt. The treatment and disposal of saline water in Victoria is subject to environmental conditions under the MRSDA, the Environment Protection Act 1970 and the Water Act. Any future application would need to test water salinity and demonstrate how disposal of water could be managed so that it did not significantly affect the environment. ***Saline water has the potential to permanently ruin productive agricultural land if released in sufficient quantities. This saline water may also contain a range of carcinogens, heavy metals and radionuclides (atoms that are radioactive contaminants) naturally present in coal seams.*** (Source South Gippsland Shire Information For Residents Paper 2012)

Fires

At Seaspray in January ,2010 (at the start of the bushfire season) ***flaring procedures on a tight gas exploration well went horribly wrong. Operated by Petro Tech a wholly owned subsidiary of Lakes Oil sent a burning ember***

into nearby grazing pasture, sparking a 10 hectare fire which quickly spread beyond the company's control. Five CFA tankers and two bulldozers were called in to fight the blaze after Petro Tech could not effectively operate onsite fire response equipment: a 1000 litre water tank and trailer pump and hose. According to the Incident Investigation Report **“The operator failed to ensure the flaring was contained in the flare pit and failed to clear vegetation in a way which would prevent embers.”** The report also noted there had been three small separate spot fires in the 6 months preceding the incident. Despite a requirement for Petro Tech to perform flaring in accordance with a government accepted operation plan and for flaring to be conducted in a manner which eliminated the risk of an uncontrolled fire developing or minimised it so far as practical the report concluded that this had not been done. **Whilst prosecuting Petro tech and cancellation of lakes oil exploration licence was considered during the investigation, this did not happen.** (Source Gippsland Farmer Newspaper November 2012) . We can only speculate about the impact of this type of mining in such a fire prone State as Victoria.

Methane

In a Unconventional gas mining report by the National Oceanic and Atmosphere Administration (NOAA) and Colorado University it was found that certain gas fields were “losing about 4% of their gas to the atmosphere not including additional losses in the pipeline and distribution system.” The Australian Government’s Department of Climate Change and energy stated “Methane is currently responsible for almost one fifth of the enhanced greenhouse effect, second only to carbon dioxide. However **methane has a warming potential more than 20 times greater than carbon dioxide on a volume basis.**”

Testing inside the Tara gas fields near Condamine in Queensland’s Western Downs found some greenhouse gas levels over 3 times higher than nearby districts according to the study by researchers at Southern Cross University. Methane, Carbon Dioxide and other gases appear to be leaking up through the soil and bubbling up through rivers at an astonishing rate the researchers said. “The concentrations here are higher than any measurements in gas fields anywhere else that I can think of including in

Russia.” Said Damien Maher a biochemist who helped conduct the tests. Uncontrolled leaks up through the rock fissures and soil of the type measured by the Southern Cross University team, were assumed to be nil and are unaccounted for under the Federal Emissions Trading Scheme. ***Inside the gas field , methane was measured at up to 6.89 parts per million, compared to an average background level outside the gas field of about 2 parts per million.*** Carbon Dioxide levels inside the gas field were measured at up to 541 parts per million compared to 423 parts per million outside. (Source Sydney Morning Herald Nov 14, 2012)

In Pavillion, Wyoming, the EPA detected high concentrations of benzenes, xylenes, purgeable hydro-carbons, and gasoline and diesel by-products in shallow ground water near fracking waste-water holding pits. Collectively these chemicals present risks of neurotoxicity, reproductive problems and cancer. The EPA determined that the most likely cause of groundwater contamination was leaking pits used to store fracking fluid waste. Groundwater contamination from toxic drilling wastewater poses a health risk to humans, as well as pets and farm animals that drink or bathe in contaminated water. (Sources Ruth McDermott –Levy, PhD, RN Nina Kaktins, MSN, RN Barbara Sattler, DR PH, RN Evidence Based Resources on Fracking and its Health Impacts Alliance of Nurses for Healthy Environments American Public Health Association Natural Resources Defence Council Physicians, Scientists and Engineers for Healthy Energy SouthWest Pennsylvania Environmental Health Project US Environmental Protection Agency)

Victorian Farmers Federation (VFF)

The VFF has recently passed a resolution which calls on the government to ***extend the existing moratorium by 5 years*** ie on exploration and extraction of onshore gas in Victoria. The VFF stated that ***“there is increasing evidence of negative impacts on agriculture and water supplies from unconventional onshore gas mining exploration and extraction in both Australia and around the world.”***

- (3) The coexistence of onshore unconventional gas activity with existing land and water use, including...**
- (a) Agriculture production and domestic and export market requirements.**
 - (b) The legal rights of property owners and the impact on property values and**
 - (c) Any implications for local and regional development, investment and jobs.**

Mining companies need to access land for exploration and extraction purposes. These processes have the potential to affect the amenity of landowners, their stock and farming practices by the intrusion of pipelines, the movement of vehicles and personnel and the increase in noise from pump head infrastructure. ***This maybe so in the broad acre farming on farms of thousands of acres in Queensland and NSW. However it is not likely to be compatible to the intensive farming conducted by the productive dairy farms of Gippsland. Farms here are much smaller in size and farmers rely on the ability to rotate paddocks ensuring quality feed.*** In our immediate vicinity the average farm is around 300 acres. Further into Gippsland particularly around Sale where dairy farming relies on irrigation, farms are smaller and the methods used are more of an intensive nature. These farms do not have a capacity to lose large percentages of land to the grid patterns required by unconventional gas mining, or to extensive road ways between each well or to large holding ponds for waste water.

Land Subsidence

Land subsidence as mentioned earlier resulting from aquifer disturbance has also been recognised by the Australian Government's National Water Commission as a significant risk of unconventional gas extraction processes. To quote the Chairman of the Rural Affairs and Transport Reference Committee in the Senate Hansard 9/9/2011 ... "We have learned the hard way, sorry to go back in time in history, but in 1969 we gave approval for the Bass Strait oil and gas extraction. ***We now have a better than 50% chance over the next 30 years of a serious subsidence of the Gippsland coast, up to 17 metres of subsidence because we did not think about the recharge and mining of the aquifer starting up in Gippsland.*** If you draw too much water out you have to keep the pressure high."

CWA Experience NSW

Elaine Armstrong is the NSW President of the Country Women's Association, she has said "Our members have heard anecdotally and have experienced personal examples of what has happened from unregulated exploitation of prime land by the granting of mining and coal seam gas exploration permits.

Many have personal experience of irreparable damage done to their properties because of non regulated activities."

Melbourne hosts Australia's biggest busiest container and general cargo port and Devondale Murray Goulburn Cooperative is amongst the biggest single exporters at that port. They export to Asia, the Middle East, North Africa and the Americas. The unconventional gas exploration licences granted cover some of this most productive agricultural land. Gas fields can occupy huge areas of land with a cobweb of connecting roads and drill sites. There is also a dangerously high risk that contaminated air, soil and water will directly impact on our ability to produce healthy clean food. A key element of this question has to do about food security and local food production. Do we want to have to import food over thousands of kilometres from places like China and India because our local food bowl has been destroyed by mining interests .

Dairy Industry

The dairy industry is an integral part of the infrastructure around Kongwak. In addition to Devondale Murray Goulburn , now Fonterra the international dairy company has opened its processing centre at Darnhum. ***In 2013 Fonterra New Zealand told Taranaki dairy farmers it would not take milk from any new farms in the area , due to the cost of testing for contamination. Its over the issue of mud waste from oil and gas drilling, called land farming.*** Fonterra's local Managing Director of Corporate Affairs said "that the cost of testing was around \$80,000 per year and too high." (Source ABC Rural Affairs June 21, 2013.)

In his submission to the 2011 NSW Parliamentary Inquiry into Coal Seam Gas, Patrick Neal, a member of the NSW Farmers Association Dairy Committee said

under oath ... ***“there is simply no way for us to be confident that pollutants going to and from the coal seam will not make their way into the water and in turn into our livestock and the food chain.” Mr Neal goes on “I have serious doubts about whether we can operate alongside the coal seam gas industry.”***

The value of the dairy industry in Gippsland is annually around \$624 Million. Just this one segment of agriculture provides 30% of Victoria’s milk and dairy produce and 20% of Australia’s. Gippsland also produces 25% of Victoria’s beef with a significant proportion going to export. The total value of all meat exported from Gippsland is \$361 Million. Forestry is valued at \$1.89 billion. Only Victoria produces an organic meat market for the domestic market and is in the process of building an export market. (Source DEPI Vic) The dairy industry is expected to grow as greater world demand increases. ***China has recognised the regions potential and is currently building a massive dairy complex at Kernot within the Bass Coast Shire.***

Earthquakes

Gippsland is an earthquake prone area. On December 3, 2014 an earthquake struck Korumburra , shaking items off tables and rousing sleeping residents. It was reportedly felt as far away as Melbourne. The 3.4 magnitude quake hit just after 3.30am according to Geoscience Australia. A significant 4.4 magnitude quake struck the area in July 2011, along with a 4.6 magnitude tremor in March 2009. The nearby Latrobe Valley town of Moe was hit by a 3.2 magnitude earthquake in October last year and in June 2012 experienced a damaging 5.4 magnitude event. An updated map from ***Geoscience Australia describes Central and South Gippsland as one of Australia’s earthquake hot spots.*** This view is supported by RMIT’s Seismology Research Centre which states “they could not rule out an earthquake in Victoria similar to the one that killed 13 people in Newcastle in 1989. ***Researchers at Columbia University’s Lamont Doherty Earth Observatory have found that large earthquakes around the world have been found to trigger tremors at US sites where wastewater from gas drilling operations is injected into the ground.*** “The change coincides with a growing natural gas boom that is based on using amounts of fluids to crack open rocks for natural gas , known as hydro fracturing or fracking.” Heather Savage a physicist at Lamont Doherty says “If the number of small earthquakes increases , it could indicate that faults are

becoming critically stressed and might soon host a larger earthquake.” In turn these quakes can crack the gas well casing with disastrous results as per the BP oil rig in the Gulf of Mexico. (Source Age 13/7/2013)

Employment

The Bass Coast Rural Land Use Strategy points that much of the rural land mass in Bass Coast is considered productive agricultural land much of which is considered of strategic significance due to the contribution to the dairy industry. The ***Inquiry into Agric Business in Outer Suburban Melbourne*** pointed out that Agriculture and Tourism are two of the major industries in the area with Agriculture contributing \$107,449,701 annually. ***The report commented that Bass Coast has some of the most productive and viable agricultural soils for food production in Victoria and with the impact of climate change , it will continue to have some of the most reliable rainfall.***

In relation to tourism in the Regional Snap Shot Profiles, December 2014 it reports that ***Tourism in both Bass Coast and South Gippsland Shires generates a considerable amount of direct expenditure by visitors totalling \$650 Million per year and accounting for 3,800 jobs.*** Tree changers have added to the population growth and also contribute to the visitor population.

The value of all of the above is ongoing and sustainable over the next twenty years and amounts to billions of dollars to the Victorian community along with sustainable jobs into the next generation. This must not be discounted against unconventional gas mining which may at best last for a limited period of between ten to fifteen years and provide limited jobs and finances to the State. ***In twenty years time agriculture and tourism will still be providing great value and jobs in this area and will continue to do so long after unconventional gas mining has gone.***

“The reality is that the ***coal seam gas industry is currently so small that the Australian Bureau of Statistics does not publish separate employment figures for just CSG or the gas industry as a whole.*** Rather the ABS only publishes data on the combined size of employment in the oil and gas industries. According to the ABS in November last year (2013) the combined oil and gas industry

employed 23,200 people. To put this into context hardware chain Bunnings employs around 36,000 people.

The industry's peak body the APPEA recently ran a multimillion dollar national advertising campaign to coincide with the last Federal election that claimed the industry created an additional 100,000 jobs in 2012. In fact our new research shows that if the gas industry had been responsible for creating 100,000 jobs then it would have been responsible for 58% of all job creation in Australia that year. The reality was that the industry was responsible for just 5.4% only about one tenth of what they had forecast. ***In total the gas industry employed 0.2% of the Australian workforce in 2012.*** (Source *The Conversation* March 18, 2014)

Threatened Species

The unique Giant Gippsland Earthworm is listed as a threatened and protected species under the Victorian Flora and Fauna Guarantee Act 1988. It is also listed under the Federal government's Environment Protection and Biodiversity Conservation Act 1988. It is found in the Bass River Valley of South Gippsland in an area bounded by the towns of Loch, Korumburra and Warragul. All of this area is the subject of unconventional gas exploration licences. The worm is generally around a metre long but has been known to extend to up to two metres. Earthworm sightings have occurred at properties along the Kongwak to Bena road near to Twytes road. However within the wider area it is very patchy in its distribution and is found in a particular type of blue grey clay within a short distance of water courses or soaks and springs. Attempts to breed the worm in captivity at the Bass Nature park and other places have not been successful. *Certainly the disturbance created by unconventional gas mining is unlikely to aid in the protection of this unique threatened and protected species.*

4 The ability of potential onshore unconventional gas resources contributing to the States overall energy sources including...

- (a) An ability to provide a competitive source of energy and non energy inputs for Victorian industries**

(b) An affordable energy source for domestic consumers

(c) Carbon dioxide emissions from these sources

“One of the biggest claims that some CSG companies and the peak body APPEA have been making is that an expansion in CSG extraction can stop gas prices from rising in the eastern parts of Australia. This claim completely misrepresents why gas prices are rising. Put simply because the world price of gas is much higher than the Australian domestic price, the gas industry would prefer to sell gas to foreigners than keep selling it in Australia. Previously they had no way of exporting Australian gas extracted on the east coast, but 3 big export facilities will soon be ready for business in Gladstone, Queensland. When these export facilities are completed, gas producers on the eastern side of Australia will have a choice. They can sell gas to domestic customers or to foreign customers. And they will pick which customers they sell to based on price.....Once connected to the world gas market, the only things that can change the domestic price will be the things that change the world price. ***If more CSG is extracted in Australia this is not going to have a material effect on the world price and in turn will do nothing to reduce the price paid by consumers.***” (Source *The Conversation* March 18 ,2014)

South Australia is the largest producer of [wind energy](#) in Australia. Wind energy generation is variable based on the weather, so the amount of power a wind farm has the potential to generate is called installed capacity. As of June 2014, South Australia hosts the bulk of the nation's installed capacity.

There are currently 16 wind farms operating across the state with an installed capacity of 1473 megawatts (MW) of power.

The [Australian Energy Market Operator \(AEMO\)](#) estimates that in 2012-13 approximately 27% of the state's energy production came from wind power.

South Australia has been highly successful in attracting a significant portion of the investment in wind energy in the country due to the state's world class wind resources and a streamlined planning and approvals process. In late 2011, [Invest in South Australia](#) was established. It includes a team with specialist expertise in attracting further renewable investment to the State

Solar energy is increasingly becoming an important source of clean, renewable energy for homes and businesses in South Australia.

South Australia was the first state in Australia to introduce a solar feed-in scheme to encourage the uptake of solar power. The scheme is now closed to new entrants. There are now more than 160,000 installed solar systems on homes and businesses.

Since December 2009, it has been South Australian government policy that all government-owned buildings constructed or substantially refurbished after July 2010 have solar systems installed. Government-owned residential buildings are required to have a minimum 1.5kW solar system and all other government-owned buildings are to have a minimum 5kW solar system.

The government's commitment to solar power is consistent with a range of other actions being taken to move South Australia towards greater uptake of renewable energy and is contributing to meeting South Australia's 33% renewable energy target by 2020.

During 2012-13, South Australia produced 31.5% of the state's total energy production from renewable energy.

The Australian government also funded a number of solar projects in South Australia through its Solar Cities program. For more information, see the final report for the Adelaide Solar City project by [Origin Energy](#).

5 The resource knowledge requirements and policy and regulatory safeguards that would be necessary to enable exploration and development of onshore unconventional gas resources including...

- (a) Further scientific work to inform the effective regulation of an onshore unconventional gas industry, including the role of industry and government particularly in relation to rigorous monitoring and enforcement and the effectiveness of impact mitigation responses and...**
- (b) Performance standards for managing environmental and health risks, including water quality, air quality, chemical use, waste disposal, land contamination and geotechnical stability.**

Given the aforementioned examples of failures to regulate unconventional gas mining both here and overseas it seems impossible to build in the necessary safeguards that would allow this type of mining to proceed.

What Protections ?

About half what goes down the gas bore hole stays underground and half gushes back up as contaminated waste water. In theory the waste water is supposed to be directed into holding ponds. In other States giant holding evaporative ponds more than 12 hectares in size contain millions of litres of highly toxic “product water” a mixture of fracking chemicals and toxic water. In practice spills happen or unscrupulous operators have been known to dump toxic water directly on to paddocks or into local creeks and rivers.

In July 2012 the NSW Environment Protection Agency (EPA) issued fines to Eastern Star Gas (now Santos) after pollution was found in Bohemia Creek next to a CSG drilling site in the Pilliga forest of northwest NSW. The pollution had been detected by local environmentalists and farmers in 2010 who paid for their independent tests. At the time the company denied any polluted water had been released. But the results of water samples from the creek were subsequently confirmed by a Government investigation. The EPA issued Santos with a formal warning following high ammonia discharge in December 2011. ***These offences were in addition to 14 pollution incidents at the site. Both companies were found to have breached their environment protection licences. However they were fined \$3,000.*** (Source Sydney Morning Herald 7/7/2012) The paltry nature of this fine contrasts with the payment to a typical landholder of between \$300 and \$1500 per well and the companies making up to a million dollars per well.

More recently this year we have witnessed the situation where in NSW , AGL has had problems dumping its toxic waste at the CSG field in Gloucester. AGL had organised to send its waste to Transpacific until stopped by Hunter Water which did not want it ending up in the sewers of Newcastle. ***This is because AGL and their contractors were caught unlawfully disposing of the waste in Hunter Rivers sewers.*** Then AGL sent

it to Worth recycling in the Hawkesbury region. But after a time the company refused to take any more. BTEX was discovered in the water. AGL now plans to store the waste water in its eastern open dams at Teidmans for a minimum of 8 months and possibly for several years. At this stage there is no information about the impact on human health or the effect of the open dam water on bird, animal and aquatic life. AGL's licence requires them to dispose of this water at an approved facility and in enclosed steel tanks but they are not doing so. (Source Sydney Morning Herald 14/3,17/3/2015 and ABC news 19/3/2015.)

We are not against progress but there have been numerous occasions where mining activity has been bad for the State and the taxpayer left to pick up the bill for the operators neglect. The Longford disaster explosion and deaths was an enormous impost on Victorians. The taxpayer subsidy of water bores along the Gippsland coast where land subsidence has occurred since the introduction of offshore mining many years ago. The 2014 Morwell Hazelwood fire has made us nervous about Governments and their advisors ability to protect the health, livelihoods and safety of their communities. The Naphthine Government's own *Hazelwood Mine Fire Inquiry Report reserved some of its harshest criticisms not only of the mining company GDF Suez but also the regulatory processes including the role of Chief Health Officer Dr Rosemary Lester*. It was pleasing that the Andrew's government reopened the Inquiry and implemented new mining regulations including fines and the possibility of loss of a mining licence for some breaches.

Despite these developments CSG Free Kongwak remains unconvinced that the regulatory regime required would stand up to the mining companies which appear to be beyond effective controls.

(6) Relevant domestic and international reviews and inquiries covering the management of risks for similar industries including but not limited to , the Victorian Auditor Generals Report : Unconventional Gas: Managing Risks and Impacts (contingent upon this report being presented to Parliament) and other reports generated by the Victorian community and stakeholder engagement programs.

We understand that the Victorian Auditor General's Office Report "Unconventional Gas : Managing Risks and Impacts will not be released until September at the earliest, so it is not possible for our submission to comment on the contents.

Other States like Qld and NSW have pursued CSG mining with disastrous consequences. For example the *NSW Chief Scientist argued last year "The precautionary principle should apply to CSG, given there is sufficient evidence that there are risks associated with this mining."*

A more recent report documents 337 references with 117 peer reviewed articles or official reports on current research by **Concerned Health Professionals of New York** concludes "as fracking operations have increased in frequency and intensity, a significant body of evidence has emerged to demonstrate that these activities are inherently dangerous to people and their community. Risks include adverse impacts on water, air, agriculture, public health and safety, property values, climate stability and economic viability".

In March last year, *Professor Ingraffea (US Cornell University and one of TIME magazines "People Who Mattered") called on Australia to abandon CSG and Shale Gas production in favour of alternative energy because of the dangers associated with this type of mining.*

Conclusion

The implications for our Victorian dairy farmers are obvious let alone the tourism, beef, fruit, vegetable and other agricultural industries. Unconventional Gas mining has the potential to cost employment and adversely affect the many small businesses and farms and hence communities throughout South Gippsland. We would be pleased to appear before the Inquiry to elaborate on our claims should that be possible.

CSG Free Kongwak [REDACTED]

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