

# Submission to the Parliamentary Inquiry into Unconventional Gas Mining



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## Submission for the Parliamentary Inquiry into Unconventional Gas

To the Environment and Planning Committee for Unconventional gas inquiry.

Thank you for taking the time to read through this submission for the Unconventional Gas Inquiry. I currently live in an area which has an exploration licence for unconventional gas (tight and shale). Initially, I did not know a lot about Unconventional Gas (UG) and its impacts, so this prompted me to commence research for myself.

Below are many points that I would like to make in regards to the Terms of Reference; but firstly, I would like to make it clear that I wish to see **a TOTAL BAN On Unconventional Gas in Victoria**. And this request comes down to one major point:

Why risk our health, welfare and the livelihoods of many Victorians to an industry that has not yet proven its self to be 100% safe. Why not take the precautionary approach?

The Terms of Reference to this inquiry are reproduced in red, and my concerns are in black.

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

Regardless of Victoria's geology, the Daniel Andrews Labor Government has invested a significant amount of taxpayer's money into agriculture, promising, a \$200 million Future Industries Fund investment; awarding \$1 million grants to businesses that specialise in the food and fibre sector together with five other high-growth industries in Victoria. Such an investment is poised to help Victoria lead the world in agriculture production.

The government also plans to invest \$20 million in Food Source Victoria, which is designed to build alliances among all producers. These regional alliances will focus on high-quality goods, and will collectively market their produce for export. Reference- [Back on the Land 2015](#)

**QUESTION: If the Parliamentary Inquiry is examining the "commercial sources of onshore unconventional gas" why should the government threaten Victoria's productive agricultural industry (which has injected 11 billion dollars into the Victorian economy) by approving the UG industry that has a long history of destroying all other industries along side it, especially agriculture?**

### **(4) the ability of potential onshore unconventional gas resources contributing to the State's overall energy sources including...**

With the world now shifting its focus into renewable energy, it makes sense to continue with the progress that has already been made to replace our reliance on fossil fuels, rather than continue to rely on these energy sources.

Wind legislation reform, Victorian Renewable Energy Targets (RETs) and Hydro Station Projects (\$500,000 to build a mini hydro station at Lal Lal Reservoir) are the type of projects Victorians should be seeing as viable initiatives to preserve our industries and every Victorian's welfare into the future.

Minister for Industry, Lily D'Ambrosio, said Labor's \$200 million Future Industries Fund would also work with the renewable energy sector to boost the creation of jobs and investment. The establishment of a \$20 million New Energy Jobs Fund will also offer support to community groups and businesses developing renewable energy projects. <http://www.premier.vic.gov.au/victoria-to-lead-the-way-on-renewable-energy>

**QUESTION: If the Parliamentary Inquiry is examining the "potential [for] onshore unconventional gas resources contributing to the State's overall energy sources" why should the government encourage more fossil fuel-based industries when clean renewable energy technologies are available that can provide for the State's energy needs into the future?**

**Does the government want Victorians to breathe carcinogenic pollutants into their lungs as the Chinese and Indians do each day because it "contributes to the State's overall energy sources"?**

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

It is a well established fact that the gas extracted through unconventional means is compressed at a central site and then piped long distances to ports for export as Liquefied Natural Gas (or LNG). This is because the price of selling exported LNG is much higher in Asia and China than it is in Australia.

**QUESTION: If the Parliamentary Inquiry is examining "a competitive source of energy and non energy inputs for Victorian industries" how can this happen if the bulk of any Victorian produced UG industry is exported to Asia to attract a greater wholesale gas price?**

**If the UG producers are able to make huge profits from export sales, what then will Victorians gain from this industry?**

**Is the answer to this question - just the toxic chemical waste in their air, the undrinkable water in our taps and our food supply diminishing – along with all the other social and unemployment issues this industry inflicts on communities around the world?**

**(b) an affordable energy source for domestic consumers; and**

Since the electricity smart meters were imposed on Victorians, most have seen huge increases in their bills – and gas prices have also increasing significantly.

In an article in [The Age](#) last February, the following statistics were reported regarding electricity and gas disconnections – presumably because people can no longer afford these “essential services”:

Quote: “The number of homes having gas and electricity disconnected has hit staggering levels with more than **58,000 disconnections in one year** and the state government ordering an urgent inquiry.

Disconnections for electricity have hit a new record with more than **34,000 homes having power shut off last financial year** and **more than 24,000 having gas shut off**. “These figures represent the highest disconnection rate ever recorded by the Essential Services Commission,” Energy Minister Lily D’Ambrosio said.” <http://www.theage.com.au/victoria/soaring-power-costs-leads-to-record-number-of-disconnections-in-victoria-20150218-13i4ft.html>

Since the sale of the former State Electricity’s Commission’s assets to offshore electricity distribution companies many years ago, Victorians have experienced ever increasing electricity and gas prices to provide ‘essential services’ into their homes in their efforts to live day-to-day. As an increasing number of Victorians are no longer able to afford these services, it is unacceptable that the government agencies view profits to multinational companies being placed as a higher importance above ordinary Victorians who need these “essential services”.

**QUESTION: If the Parliamentary Inquiry is examining “an affordable energy source for domestic consumers”, allowing the UG industry to achieve this goal of “affordable energy” will require a ban being placed on the export of UG to offshore markets to enable a reduction in local gas prices Is such a ban possible?**

**(c) carbon dioxide emissions from these sources;**

There are serious concerns about the air pollution associated with UG activity, with fugitive emissions of methane and other gasses (e.g. benzene) from:

- the well head,
- holding ponds,
- gas piping, and
- through subsidence etc.

The primary gas produced by CSG is methane. The concern about this is that it has a 25-times higher greenhouse footprint than CO<sub>2</sub> for the same quantity of gas.

**Quote:** “Pound for pound, the comparative impact of CH<sub>4</sub> [methane] on climate change is 25 times greater than CO<sub>2</sub> over a 100-year period.”

<http://epa.gov/climatechange/ghgemissions/gases/ch4.html>

More importantly, the UG industry is known to have leaking well heads everywhere. Some leak a little and many leak a lot. It is a very costly process for the UG industry to reduce leaks.

**QUESTION: If the Parliamentary Inquiry is examining “carbon dioxide emissions from these sources”, shouldn’t this question be more related to Methane gas?**

I would encourage all members of the committee to view this brief 4-minute video that demonstrates the levels of fugitive methane gas leaks from the various UG industry’s production facilities. <https://www.youtube.com/watch?v=297AvW905D4>



Therefore, what is the purpose of allowing a fossil fuel industry into Victoria that pumps massive amounts of methane gas into the environment at a rate that is significantly higher than CO<sub>2</sub> and which harms people and pollutes aquifers and the air?

**(2) the environmental, land productivity and public health risks, risk mitigations and residual risks of onshore unconventional gas activities;**

The list of risks associated with the UG mining industry is long. Below you will find my list of concerns.

- **Noise pollution** of trucks, drilling rigs and construction occurring throughout local communities 24/7.
- **Air pollution** (see above).
- **Public health.** Research by Doctors for the Environment Australia (DEA) has found that the current level of assessment, monitoring and regulation of CSG exploration and mining activities in Australia is inadequate to protect the health of current and future generations of Australians.

DEA identified three key areas where there is the potential for adverse human health impacts: through contamination of water, air and soil; through diversion of water and land away from agricultural food production; from mental health impacts on communities who have had environmental changes imposed upon them'

The environmental health impacts of the contamination and degradation of air and water have the potential to cause significant physical harm. The Australian Medical Association (AMA) recently called for the blocking of CSG developments if any doubt exists that there could be serious or irreversible harm to health.

- **Water.** Water consumption during drilling and processing is huge, consuming several millions litres of drinking water per bore hole, which reduces the amount of drinking and agricultural water available to the community. Such use puts pressure on aquifers in times of drought.
- **Flow-back water.** The risk of spillage of "flow-back" water is huge.
- **Produced water.** Disposal of "produced" water is a major problem for the industry, as there is no technology available for it to be recycled into anything useful. In the USA, the industry pumps this wastewater into disused oil wells. This lubricating of the rock formations deep below ground is the cause of significantly increased earthquake activity.
- **Groundwater.** Where rain falls on areas that have been contaminated by UG industry operations, the groundwater then becomes contaminated.
- **Aquifers.** When bores are drilled and then casings are fitted to prevent the gas escaping into the aquifers, the steel and cement casings are not always as good a seal as one might hope. All casing have a limited lifetime. As the seal ages, so the fugitive methane emissions increase.
- **Water table levels.** Read this report on how drilling bores for gas lowers the water table. <http://coalseamgasnews.org/qld/ian-hansen-letter-to-the-editor-on-abandoned-bores/>
- **Chemical contamination.** The risk of chemicals contaminating the environment above ground is very high. First the trucks are required to transport the chemicals long distances – often along narrow country roads. These chemicals are mixed on site where washing facilities for personnel involved in this work are necessary should a spill occur.

When the fracking operation is completed, a portion of the fracking fluid is removed from the well and placed into evaporation ponds where a cocktail of toxic chemicals is exposed to the air to disperse the liquid.

If a storm dumps a large amount of rainfall that causes flooding, all of the chemicals contained in these ponds flows into the surrounding environment. A certain amount of radioactive material (e.g. uranium from deep underground) is often found in this fluid.

Contamination to ground water and seepage from the evaporation ponds may result in health impacts in livestock and wildlife, general environmental and soil degradation due to increases in salinity or the toxic chemicals.

- Rural people may, with the development of an onshore natural gas industry, face a more industrialised environment that affects their way of life and their overall health and welfare.

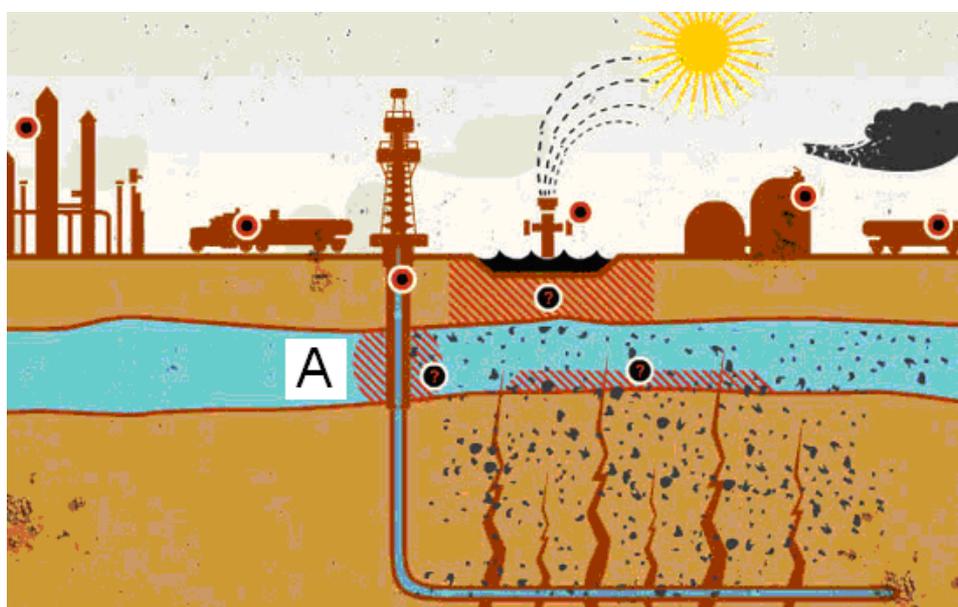
History indicates that the UG industry forces many people in rural communities to move to other locations.

### (3) the coexistence of onshore unconventional gas activities with existing land and water uses, including —

The industrial nature of the onshore UG industry competes and eventually overtakes most other users of land (e.g. agriculture, tourism, residential, biodiversity and amenity).

The UG industry changes the landscape it occupies. Other land uses become significantly affected by this industry due to:

1. Fracking operations consume **millions of litres of our precious drinking water** for every well.
2. Fracking uses a huge quantity of highly toxic chemicals to 'fracture' the rock.
3. These chemicals have to be transported along suburban and country roads to their destination. Should an accident occur that results in a toxic-hazard emergency, cleanups do not always eliminate 100% of the spill; so the community affected is often left to endure the after effects from such accidents.
4. The well liners are not always leak-proof. (Refer point 'A' below).



5. Reports are available where well liners have exploded out of the wells causing toxic fracking fluid to escape into the environment – see below.



*A fracking well operated by Carrizo Oil and Gas out of Texas in [Washington Township, Wyoming County, PA](#) malfunctioned and began spewing out dangerously chemical-laden fracking fluid at a rate that peaked at 800 gallons per minute. The spill lasted for hours and when all was said and done, about 227,000 gallons of fracking fluid had spilled.*

6. In a land as dry as Australia, we cannot take any risk that gambles with the purity of 'our aquifer water', which is the lifeblood of communities (people), livestock and crops, which we all depend upon.
7. A bore hole from a fracked-well can be directed horizontally in any direction – so that if one neighbour allows a mining company onsite to drill a well, the horizontal section could be located underneath the next door neighbour's property. This has the potential to destroy the neighbour's land and environment if any methane gas leaks into the neighbour's water supply.



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8. The presence of mining companies involved with Fracking operations restricts the freedom of the local community to move about. High level truck operations are known to ruin local roads.



*Fracking operations going on for days, less than a week and the road , [Chenango St.](#), collapsed in crumbling sections along about a 3 mile stretch...*

9. There are no benefits for local communities from CSG mining. The only benefits are for the miners, their investors and the government.
10. There are [few if any jobs](#) for local people in the Fracking industry.
11. The health and welfare of communities affected by Fracking operations are severely affected.
12. A BIG problem is what to do with the millions of tonnes of **unwanted salt** produced by Fracking. Quote:

"...the issue of what to do with the salt, estimated to amount to millions of tonnes, and other residue left after the water is treated, remains essentially unresolved. The ABC site [Coal Seam Gas by the Numbers](#) reports the amount of salt to be generated as up to 31 million tonnes, enough to fill the Melbourne Cricket Ground 15 times. They report that QGC has been given permission to build a salt pit the size of four MCGs." [Crikey](#) 9 March 2012.

**QUESTION: If the Parliamentary Inquiry is examining whether "onshore unconventional gas activities can exist with existing land and water uses", the answer has to be an emphatic NO when the above 12 points are considered.**

**(a) agricultural production and domestic and export market requirements;**

How do farmers sign a Nation Vendor Declaration (NVD) form that declares the organic quality of their cattle, especially if an Unconventional Gas mining wellhead was located on their property or on a neighbouring property?

**QUESTION: If the Parliamentary Inquiry is examining whether "agricultural production and domestic and export market requirements" would be adversely affected by the UG industry, the**



the Committee would opt for the Victorian rather than the ACT approach by including a provision on property rights. The Committee does, however, question the usefulness of the Victorian provision— ‘A person must not be deprived of his or her property other than in accordance with the law’.<sup>1</sup> At the very least, the provision should provide for just compensation and due process for the compulsory acquisition by the Commonwealth of property required for public purposes. ”

Section 51(xxxi) of the Australian Constitution states the following requirement regarding forced land acquisition:

**“The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:**

**(xxx) the acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws.** [http://www.austlii.edu.au/au/legis/cth/consol\\_act/coaca430/s51.html](http://www.austlii.edu.au/au/legis/cth/consol_act/coaca430/s51.html)

Article 17 of the Universal Declaration of Human Rights also provides that:

**“...no one shall be arbitrarily deprived of his property”.**

Indeed, even the Magna Carta to which Australia recognises as the basis of law in Australia assigns property rights to the individual:

Article 39 of the Magna Carta 1215, states:

**“No freeman shall be arrested, or detained in prison, or deprived of his freehold, or in any way molested; and we will not set forth against him, nor send against him, unless by the lawful judgment of his peers and by the law of the land.”**

Senator Glenn Lazarus on Thursday 5<sup>th</sup> March 2015 moved in Parliament [a Bill](#) seeking a Royal Commission into the appalling lack of respect that CSG mining companies have for the rights of farmers:

Quote: “In Queensland landowners virtually have no rights. Incredibly, landowners in rural and regional Queensland do not have the right to say no to CSG mining on their properties. As a result, the industry has enjoyed unrestrained growth and, in the view of many, unlimited access to people's land. I need to stress that we are talking about land privately owned by our very own citizens. We are talking about land on which the people of Queensland live, farm, manage their stock, run their businesses, raise their families and play with their kids.

CSG companies simply knock on their doors and through bullying, intimidation, threatening behaviour, relenting pressure and other tactics force

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<sup>1</sup> Charter of Human Rights and Responsibilities 2006 (Vic) s. 20.

their way onto people's land. They threaten farmers with legal action or tell them they will take them to the land court. Landowners are left distressed and feeling like they have no option but to be forced into lifelong contracts to have CSG mining undertaken on their properties—because they cannot afford the costs of a lawyer to help them out.” <http://www.openaustralia.org.au/senate/?id=2015-03-05.130.2>

Currently, there is a case in the Federal Court of Australia involving *Peter Spencer vs Commonwealth of Australia* (ACD24/2007) that involved the indirect sequestration of his farm for environmental purposes by the Federal Government, without them providing any due compensation to Mr. Spencer for the loss of his property. This ongoing case since 2007 and involving some 200 court appearances by Mr. Spencer is due to be decided around August this year.

The point here is that politicians, lawyers and others argue about farmers not having rights to the minerals, petroleum or other assets on or under their land; however the documents referred to above indicate farming people do have these rights and they have NOT being paid proper compensation through negotiation and consent. The dispute over land rights is not finished – yet.

**QUESTION: If the Parliamentary Inquiry is examining “the legal rights of property owners”; the question is – does this committee or any politician have the right to deny land owners (such as farmers) their legal rights to do whatever they desire with their land?**

**Does any politician have the right to force landowners to hand over those rights to offshore UG mining companies as has happened in Queensland?**

**(c) any implications for local and regional development, investment and jobs;**

The Australian Bureau of Statistics estimated that around 3,500 businesses in Victoria are involved in horticultural activities. Of those businesses, most are involved with the production of fruit, citrus, stone fruit and berries, almonds and other nuts, grapes and vegetables.

Statistics from the Victorian DEPI reveal that Victorian horticulture exports were valued at \$894 million in 2013-14, an increase of \$288 million (48 per cent) from 2012-13. Hong Kong was Victoria's largest market for horticultural exports, valued at \$141 million

The 2010-2011 statistics from the National Farmers Federation reveal that:

- There are 307,000 people employed in Australian agriculture.
- The complete agricultural supply chain, including the affiliated food and fibre industries, provide over 1.6 million jobs to the Australian economy.
- The agricultural sector, at the farm-gate, contributes 3 percent to Australia’s total gross domestic product (GDP).

- The gross value of Australian farm production in 2010-11 was \$48.7 billion.
- Agriculture's gross contribution to the GDP averages out at around 12 percent (or \$155 billion).

From the Australia Institute's [Fracking the Future report](#) it states this about gas industry jobs:

**Quote:** The gas industry is relentless in its claims about job creation. It commissions modelling, creates dedicated websites and runs national multi-million dollar advertising campaigns that focus on the potential for the industry to create huge numbers of jobs. It is not surprising then that 39 per cent of the August survey respondents nominated more jobs as a benefit of CSG.

While the industry is busy claiming it creates many jobs, the reality is that the gas industry is a relatively small employer. While figures for the CSG industry are not published by the ABS, job numbers for the oil and gas industry are, and the CSG industry is a part of this sector. In August 2013 the entire oil and gas industry employed 20,700 people, which is 0.2 per cent of the workforce. To put this figure into context, the hardware retail company Bunnings employs 33,000 people alone. <http://www.tai.org.au/content/fracking-future>

Therefore, I believe the committee should consider the following question in light of the above information:

**QUESTION: If the Parliamentary Inquiry is examining whether there were "any implications for local and regional development, investment and jobs" – in view of the claims from the Fracking the Future Report, can the mining industry prove (using statistics) that significant local employment will increase when it moves into local communities?**

**It also needs to reveal what types of jobs are created and how long they last for.**

**(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 —**

Although the onshore UG industry is preferred to be seen as a relatively new industry and science, it has been in operation in certain parts of the United States of America for over 20-years. Throughout much of that time, the industry has expanded into areas almost unregulated, because of the drive for profits that often overrun environmental safeguards. The same environmental vandalism has been evident in the Australian experience.

Quote: "Normally conservative farmers are locking themselves in protest onto Santos' drilling machinery, town hall meetings opposing Santos' projects are now being held across regional Australia, and a shareholder revolt is brewing. **The company is being labelled an environmental vandal** following news

that its exploration operations have poisoned groundwater under the Pilliga Forest, a recharge area for the Great Artesian Basin.

Source: <http://www.brisbanetimes.com.au/comment/quest-for-coal-seam-gas-sullies-name-of-santos-20140317-34xbj.html>

This situation of “environmental vandalism” has been allowed to occur because there was no industry regulation by the NSW government. It has only been since events like these were raised in the public domain that some action has occurred to put some form of regulation in place. But can anyone be certain the regulations will be enforced when Santos was fined a paltry \$1,500 for polluting the Great Artesian Basin aquifer? <http://www.smh.com.au/environment/santos-coal-seam-gas-project-contaminates-aquifer-20140307-34csb.html>

**QUESTION: If the Parliamentary Inquiry is examining whether “the resource knowledge requirements and policy and regulatory safeguards that would be necessary to enable exploration”; in light of the environmental vandalism that has already occurred throughout Queensland and NSW, would the committee members strongly recommend and enforce that Environmental Impact Statements be produced by independent organisations prior to drilling permits being issued?**

**(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**

**QUESTION: If the Parliamentary Inquiry is examining whether “effective regulation of an onshore unconventional gas industry” is at all possible in light of the environmental vandalism that has already occurred throughout Queensland and NSW by UG companies, why then bother looking at investigating “further scientific work” of the UG industry, when it has proven itself to be an environmental vandal many times over?**

In addition to this claim, who will be the ‘watchdog’ for those in the communities who are affected by these operations? Will such bodies carry the required level of powers to prosecute rogue mining companies effectively so that those impacted (included the environment) are adequately compensated or returned to a pristine state?

Also, will the government or the mining companies concerned pay compensation when an incident occurs – and can the matter be fast-tracked without the victims being forced to present long drawn-out civil cases in the courts?

**(b) performance standards for managing environmental and health risks, including water quality, air quality, chemical use, waste disposal, land contamination and geotechnical stability;**

The UG industry has opposed criteria (b) because it knows it cannot meet “environmental and health risks, including water quality, air quality, chemical use, waste disposal, land contamination and geotechnical stability”. There is ample evidence available that proves the industry causes:

**“environmental risks”** – heavy vehicle traffic throughout communities creates risks to the environment if vehicles have an accident and a spillage of toxic waste occurs.

**“health risks”** – The image below illustrates how a desperate mother of young children in Tara Queensland witnessed bleeding from the noses and ears of young children in her town from CSG mining activities.



**“water quality”** There have been many reports worldwide of water aquifers being damaged by CSG mining operations. Please read this report titled, “Fracking Causes Significant Damage” to Aquifers” at <http://priceofoil.org/2013/07/31/fracking-causes-significant-damage-to-aquifers/>.

**“air quality”** The pollutants from the wellheads (methane gas) and from the evaporation ponds (BTEX and other carcinogenic chemicals) become airborne and are the source of the problem as to why children in particular bleed from their noses, ears and anuses.

**“chemical use”** The UG industry is highly secretive as to the chemicals they use in their fracking operations. It is well known that many of these chemicals cause a variety of serious illnesses – some of which lead to death.

**“waste disposal”** I strongly encourage each member of the committee to view this 8-minute video that clearly demonstrates the criminal actions of the CSG mining industry in the disposal of their wastewater onto public roads, where the Geiger counter reading indicates the radiation level detected from the wastewater dumped upon a Queensland public road reached 1.03

$\mu$ Sieverts – which is a highly dangerous level of radioactivity for anyone to be exposed to. <https://www.youtube.com/watch?v=FdA3cy-7VuY>

In another newspaper report, AGL were caught dumping “flow-back water” into one of NSW’s sewer systems. This means that radioactive waste will eventually end up in the local marine environment, therefore contaminating the sea life that people eat.

Quote: “Mr Watts says there are serious questions over how the AGL operation at Gloucester is being regulated. “It makes a mockery of New South Wales having the strictest regulations in Australia when this can happen right under the noses of the authorities.” <http://www.abc.net.au/news/2014-12-19/company-fined-for-dumping-csg-fracking-water-from-agl-site-in-n/5978776>

### “land contamination”

The following chart is self explanatory.



**Make the connection!** If CSG mining is allowed in our water catchments it will forever link toxic coal seams with the surface where our drinking water is collected. CSG well integrity relies on concrete and steel lining; materials that degrade over time.

“**geotechnical stability**” A Sydney Morning Herald article titled ‘*How earthquakes linked to fracking are fracturing an Oklahoma community*’ just about says it all.

Quote: “The number of perceptible earthquakes leapt from an average of two each year to 567 last year – an increase of 28,250 per cent between 2009 when the fracking began and last year. “It feels like a bomb going off,” says Mark Crismon, a Vietnam veteran, of the first wave of energy that hits with one of the larger quakes.”

<http://www.smh.com.au/world/how-earthquakes-linked-to-fracking-are-fracturing-an-oklahoma-community-20150227-13p7ss.html>

The capacity of regulators to manage the development and operations of the industry is questioned as the UG industry in Australia and elsewhere in the world has largely operated unregulated. Concerns are expressed about:

- regulatory powers and their stability over time;
- inadequate and declining regulatory resources;
- poor industry track record;

- inadequate adherence to voluntary industry codes of practice;
- the international and sometimes 'footloose' nature of some private companies and the inability of regulators to enforce compliance in the advent of bankruptcy;
- the perceived inadequacy of restoration bonds given the lifetime of potential impacts;
- the possibility of risks and liabilities being transferred from the companies to landholders, the community or the State before their effects emerge and, the risk of unforeseen risks and liabilities emerging later.

In light of the above comments related to "environmental and health risks" the following questions should be asked:

**QUESTION: If the Parliamentary Inquiry is examining whether there are various "environmental and health risks" associated with UG industry activities, then:**

1. Given the UG industry's extremely poor record of having respect for water quality, air quality, chemical use, waste disposal, land contamination and geotechnical stability" it makes one wonder why such a toxic and environmentally damaging industry should be allowed to operate in Victoria alongside farming communities that require a pristine environment to produce food products.
2. Some 61 communities throughout the affected Petroleum Exploration Permit regions of Victoria have declared themselves Gas Field Free. This indicates that the UG industry does NOT have a social licence to operate in these communities.



3. Given that wherever the UG industry has established itself, there has been no regulation or penalties imposed when serious issues have occurred. It makes one wonder whether Victoria could adequately create, fund and enforce any regulatory body that would have sufficient 'teeth' to force the offshore companies in this industry to comply with any local mining regulations.

**(6) relevant domestic and international reviews and inquiries covering the management of risks for similar industries including, but not limited to, the**

**Victorian Auditor-General Office's 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.**

**Community Open Days:** The Victorian Community and stakeholders engagement program and its community open days were poorly advertised. From those who were able to attend these meetings, they strongly opposed the UG industry yet this was not reflected in the interim report. The final report, which focused on the quantitative survey, only surveyed 950 people from Victoria. The three different groups (for/against/don't know) is quite concerning.

The large proportion of the community which had not adopted a stance, merely didn't know who to trust. Independent research is the key to understanding the full impacts this industry may have. Until then, we will continue into the unknown.

**Final comments – headlines that shock**

**"Fracking poses 'significant' risk to humans and should be temporarily banned across EU, says new report"** [The Independent](#) – 20 June 2015

**"Near a Fracking Center, Drinking Water Has More Chemicals and Carcinogens"** [Inside Climate News](#) – 19 June 2015

**"Earthquake spike pushes Oklahoma to consider tighter fracking regulations"** [The Guardian](#) 26 June 2015

**"Oklahoma Court Rules Homeowners Can Sue Oil Companies Over Quakes"** [New York Times](#) – 30 June

**"Linc Energy alleged to have exposed workers to dangerous gases at experimental plant near Chinchilla, west of Brisbane"** 2015 [ABC News](#) - 16 March 2015

**"Secrecy over fracking chemicals clouds environmental risks, advocates say"** – [The Guardian](#) 5 July 2015

A [report](#) by the Environmental Protection Agency (EPA) last month found that hydraulic fracturing for oil and gas can lead, and has led, to the contamination of drinking water. It was the first time the federal government had admitted such a link.

**"Fracking could carry unforeseen risks as thalidomide and asbestos did, says report"** – [The Guardian](#) – 28 November 2014

The world could tackle climate change with energy efficiency and renewable energy alone but vested interests in the fossil fuel industry stand in the way, says report.

Thank you for taking the time reading this submission.