

Gillian Laland

10.07.2015

*Thank you for the opportunity to make a submission*

*To the Standing Committee on Environment and Planning  
Inquiry into Unconventional Gas in Victoria*

Is Onshore Unconventional Gas in the Public Interest ?

The definition of “public interest “ is at the core of this entire discussion.

Yet ,we cannot find where in the The Petroleum Act 1998 or the Mineral Resources (Sustainable Development ) Act 1990 where “Public Interest” has been defined.

Given the centrality of this term to the public policy decision of approving or not approving onshore unconventional gas development,this is a glaring omission.

If the very ACTS have not defined “public interest” how can government make informed decisions on behalf of all Victorians.?

*On Shore Unconventional Gas - An Industry without Boundaries*

Currently heavy industry occurs inside, a zoned industrial area. A defined space and away from home and farm.

The industry risks are central to space they occupy . Communities live OUTside their business operation.

Contrast now, as the Mining Industry trumps zoning and planing schemes, we are now expected to “Live INSide “ their industrial zone. On a grid of significant and unavoidable risk 400 - 750 metres apart.

Risks disclosed to investors.

Cabot Oil and Gas United States Security and Exchange Commission Form 10 K

*Operational Risk*

*We face a variety of hazards and risks that could cause substantial financial losses. Our business involves a variety of operating risks, including: • well site blowouts, cratering and explosions; • equipment failures; • pipe or cement failures and casing collapses, which can release natural gas, oil, drilling fluids or hydraulic fracturing fluids; • uncontrolled flows of natural gas, oil or well fluids; • pipeline ruptures; • fires; • formations with abnormal pressures; • handling and disposal of materials, including drilling fluids and hydraulic fracturing fluids; • release of toxic gas; • buildup of naturally occurring radioactive materials; • pollution and other environmental risks, including conditions caused by previous owners or lessors of our properties; and • natural disasters. Any of*

*these events could result in injury or loss of human life, loss of hydrocarbons, significant damage to or destruction of property, environmental pollution, regulatory investigations and penalties, suspension or impairment of our operations and substantial losses to us. Our operation of natural gas gathering and pipeline systems also involves various risks, including the risk of explosions and environmental hazards caused by pipeline leaks and ruptures. The location of pipelines near populated areas, including residential areas, commercial business centers and industrial sites, could increase these risks.*

### **We may not be insured against all operating risks to which we are exposed**

*We maintain insurance against some, but not all, of these risks and losses. We do not carry business interruption insurance. In addition, pollution and environmental risks generally are not fully insurable. The occurrence of an event not fully covered by insurance could have a material adverse effect on our financial position and cash flows*

<http://www.cabotog.com/wp-content/uploads/2013/03/COG-12.31.2014-10K.pdf>

Industry Risks now become Landholders risk

### Excerpt NSW Chief Scientist Report Independent Review into Coal Seam Gas 2014

#### *1.2.1 Understanding risks and controls*

*“How to think about and describe risk was also in contention – whether to start with the event, the receptor, the underlying cause, or the stage of the CSG activity (exploration, production etc.) at which it was likely to occur. There are many possible events associated with CSG activities that could pose some risk to the environment or to human health, and there are also many technical and engineering approaches to control these.”*

*“There is no universally agreed methodology for doing risk assessments, whether for the environment or health. However, from the first workshop it was clear that characterising risk was a difficult task. In trying to work through a traditional risk matrix, there was considerable disagreement as to how to estimate the likelihood of risks occurring and their severity. An expert’s risk assessment depended strongly on factors such as the basins and projects in which they had experience. Also, characterising risk at a State level proved challenging as risk levels vary substantially between sites and situations.”*

*“There was also disagreement between experts about how to rate engineering controls and regulatory requirements, where available. Some considered*

*1- Risk controlled if, for example, a produced water management plan had been created, while others emphasised that such*

*2- A plan was only as good as its implementation and compliance level,*

*3- And some contended that even with excellent compliance and the latest engineering solutions, accidents are still possible.”*

*“In discussions about controls that might be applied there was concern over presenting a single method as the best or most effective control, as its application may vary greatly depending on the local contexts.”*

*“When dealing with hypotheticals on a State-wide scale, the many variations in local geology and hydrogeology, combined with a large number of possible events and potential controls, can lead to very complicated pathways of risk or impact. Finding an agreed way to represent this thinking, such that each expert in the room was comfortable, was challenging.”*

*“The Review listed the possible risks, their causes, and attempted to understand the controls available. For the most part, the controls considered were the technical controls that could be used to reduce the likelihood or consequences of each event. The list of controls is neither comprehensive nor intended to be directive; rather, the most effective and efficient control for each situation will need to be chosen on the basis of local conditions and the level of risk encountered and deemed acceptable.”*

(<http://www.chiefscientist.nsw.gov.au/reports>)

The above excerpt would be understandable if, accessing an industry in its infancy. The Unconventional Gas Industry is mature 20 -30 years And the experts still struggle with core basics of Risk and Engineering controls

As risk management under pins Legislation is the claim “Robust Legislation” credible ?

A full list of all the reports released by the Review is given at Appendix 2. All are available on the Chief Scientist & Engineer’s website (<http://www.chiefscientist.nsw.gov.au/coal-seam-gas-review>).

*Who’s in Charge of the “Public Interest” ?*

*Victorian Auditor Generals Report 2014*

*Department Primary Industries and Department Sustainability and Environment*

*“Neither DPI nor DSE has a comprehensive whole of organisation, risk-based approach to managing their compliance responsibilities*

*They have not clearly identified how compliance activities to achieving legislative objectives and corporate outcomes , how they measure success, or how they monitor and report compliance performance.*

*As a consequence, DPI and DSE cannot be sure that their compliance activities contribute to protecting natural resources, primary industries and the environment as the legislation intended”*

*“In short, the departments have little, or no knowledge as to whether the laws they are responsible for enforcing are being complied with. Or they are not ensuring that the law with. Or both “*

([www.audit.vic.gov.au/...DPI-DSE/20121024-Compliance-DPI-DSE.pdf](http://www.audit.vic.gov.au/...DPI-DSE/20121024-Compliance-DPI-DSE.pdf))

## Insurance

*Submission to NSW Chief Scientist into CSG 2014 Hickson Lawyers Existing insurance arrangements*

*Marsh advises CSG risk in New South Wales (and Australia generally) is under insured and in some cases not insured at all.*

*Other than as advised by Marsh and another major insurance brokering firm we have only limited information about the actual level and specific types of insurance CSG industry participants do now carry or will likely take out if their operations expand. As I understand, many CSG operators are likely to hold a third party liability (TPL) policy which would generally have the following features:*

*it may extend to cover pollution but only if such pollution is characterised as sudden, accidental, unintended, unexpected and happening at a specific and identifiable time and place*

*The level of coverage, although generally negotiable, may be inadequate (as low as \$5 to 10 million for smaller operators).*

*In particular, a TPL policy is not appropriate nor is it targeted to cover gradual onset, off-site groundwater contamination, which is the main perceived risk of CSG operations identified by the insurance industry.*

*The range and complexity of insurance policies, including the scope to amend and vary those policies with endorsements, exceptions and special wording and drafting necessarily means insurance is difficult to regulate and the search for a model form of insurance or suite of insurance products may well be elusive.*

- *such insurance only remains current if premiums are paid (a matter Government cannot easily control or supervise)*
- *policies may be cancelled or not renewed without reference to Government.*

*Submission to NSW Chief Scientist into CSG 2014 Hickson Lawyers*  
 (<http://www.chiefscientist.nsw.gov.au/coal-seam-gas-review>)

The Environment Protection Act 1970 (the Act) contains a range of principles and powers dealing with the cleaning up of polluted or contaminated sites in Victoria.

This principle, stated at section 1F of the Act, is sometimes called the ‘polluter pays principle’. It says that those parties that generate pollution and waste should bear the costs of cleaning it up – by containing, avoiding and/or stopping it.

The principle also states that environmental factors should be included in the valuation of assets and services. This statement is important because, as outlined further in this guidance, owners of land including future purchasers can be held liable for its cleanup and should recognise that potential liability in valuing the land.

The polluter pays principle is not to be applied in isolation, but must be balanced with other relevant principles.

In some situations, where identifying or pursuing a polluter or occupier to clean up the site is not possible or practical, the Act allows EPA to intervene. EPA is only likely to use this power if an imminent risk to the environment or human health exists.

**In these circumstances, EPA will consider whether liable parties, such as the property owner or a subsequent purchaser, should bear or contribute to the cost of the cleanup. For example, this scenario could arise where the contamination is a result of historical activity and there is no polluter to pursue or it is impractical to do so.**

<http://www.epa.vic.gov.au/~media/Publications/1538.pdf>

- Is it acceptable, for the ONG Industry to operate on private land ,without the required level of coverage or type of policy?
- Is it acceptable for a Landholder often against their will to “Host”the ONG Industry on their land , with no indemnity against potential Liability for contamination?

The LPA National Vendor Declaration (NVD) is used to identify the origins of stock and obtain declarations from producers about a range of issues relating to animal treatments, feedstuffs and the environment which are designed to ensure consumer interests and the industry’s reputation as a producer of safe red meat are protected.

<http://safemeat.com.au/announcements/coal-seam-gas-production-and-implications-for-livestock>

Farmers who sign National Vendor Declarations for livestock that may have been contaminated by contact with CSG waste are likely to be liable for any harm incurred.

On the legal advice, Mr Shannon says there are two issues.

“Initial contractual liability rests between the buyer and the producer, but in negligence where you fail to take reasonable standard of care, to protect against damage, that liability might be both the producer and the CSG company.”

“In that circumstance, the producer might sue the CSG company depending on what is in the (CSG company's) access agreement (to the farm).”

“And the CSG company might argue contributory negligence by the landholder as to whether he should have done more to protect himself.”

<http://www.abc.net.au/news/2014-03-26/beef-contamination-legal-advice/5346640>

THE State Government has finally published the results from cattle tested in suspected contaminated properties in Kingaroy, following a series of critical articles which appeared in Queensland Country Life.

Last week (QCL p7, 09-9-10) it was reported that South Burnett producer John Andress (pictured) had waited almost two months for a letter of clearance after cattle blood and fat samples were tested by Biosecurity Queensland following the Cougar Energy water contamination scare in July.

***Mr Andress, who said he could not honestly sell his cattle until the results were provided in writing, asked*** Sustainability Minister Kate Jones to follow up the matter after a public forum last month.

A fortnight later, the Department of Employment, Economic Development and Innovation (DEEDI) responded by claiming ***they did not have an obligation to provide the results in writing because the area had not been quarantined.***

However, last Thursday afternoon, on the same day this statement was published in Queensland Country Life, two DEEDI representatives ended Mr Andress' frustrating waiting game and hand-delivered the blood sample results and a letter of explanation at his Nanango property.

*In the letter to Mr Andress, DEEDI chief biosecurity officer Ron Glanville explained that definitive test results from fat samples could not yet be provided because **there was no existing method available to test for the chemical benzene in solids**. Benzene, which was one of the suspected contamination chemicals, is usually tested in water samples.*

The Biosecurity Queensland labs at Coopers Plains, Brisbane, are currently developing a testing method, and Mr Glanville said he expected the results would be available within a fortnight.

*"This is a test that was not available at any laboratory in Australia and has been quite difficult to develop," the letter states.*

He added the results would be made available to the four other producers in the affected areas, who had also been sent letters of explanation.

Mr Andress said he believed the only reason he finally received a response from the State Government was because he spoke out publicly.

"I'm just a private individual, but sometimes you have to speak out to the media about these issues," he said.

"I'm now satisfied with the information the government has given me and now as long as they give us the results from the tested fat samples in writing, I won't have to be concerned anymore."

(<http://www.queenslandcountrylife.com.au/news/agriculture/agribusiness/general-news/bligh-govt-almost-clears-kingaroy-cattle/1944887.aspx>)

A key player in the gas industry, Richard Cottee, the man responsible for getting coal seam gas production going in southern Queensland, says the industry has failed to sell itself around the country.

(<http://www.abc.net.au/news/2015-04-06/richard-cottee-on-gas-industry/6373098>)

Selling Risk is a tough job. Have a thought for the Real Estate agents having to up sell the "Benefits" of living in a Gas Field.

*Produced Water and Salt .*

*From Queensland Department of Planning and Infrastructure Discussion Paper*

*Surat Basin Project -*

*Assuming an average salinity of 2500 mg/l, the expected annual production rate of 25 gegalitres (GL) of CSG water in the Surat Basin, will generate 62 500 tonnes of salt per year. Over a 30-year period, this amounts to 1.8 million tonnes of salt. If the industry expands further this volume will increase.*

*A broad estimate of the area required to dispose of CSG water in evaporation ponds, assuming an annual net evaporation rate of one metre and ongoing operations for 30 years, is as follows:*

*Disposal of an annual volume of 25 GL (the estimated volume resulting from gas production in the Surat Basin for domestic use) in two-metre-deep ponds requires*

250 hectares (ha) in year one and 2500 ha (25 km<sup>2</sup>) by year 15.

Disposal of an annual volume of 100 GL (based on some estimates of the potential size of a Queensland LNG industry) in two-metre-deep ponds requires 5000 ha in year one, and 10 000 ha (100 km<sup>2</sup>) by year 15.

The above estimates are for area only and do not consider design requirements for maximising efficiency of brine concentration, safety, allowance for rainfall, nor maintenance or decommissioning requirements.

So, the area of evaporation ponds required for disposal of an annual volume of 100 GL of CSG water over 30 years is roughly equivalent to the surface area of Lake Wivenhoe at full supply level. At the end of 30 years, this area could contain up to 7.5 million tonnes of salt.

([http://www.impulshydro.com/cmsAdmin/uploads/coal-seam-gas-water-discussion-paper\\_May\\_2009\\_001.pdf](http://www.impulshydro.com/cmsAdmin/uploads/coal-seam-gas-water-discussion-paper_May_2009_001.pdf))

How to find out more For more information please contact: Department of Infrastructure and Planning PO Box 15009 City East Qld 4002 Australia [coaltaskforce@infrastructure.qld.gov.au](mailto:coaltaskforce@infrastructure.qld.gov.au)  
[www.dip.qld.gov.au](http://www.dip.qld.gov.au)

STAGE one of AGL's Gloucester Gas Project will produce up to five tonnes of salt per day during peak production. Based on 110 wells.

The salt would be bagged and trucked to landfill in the Hunter or Sydney area.

(<http://www.gloucesteradvocate.com.au/story/2514340/salt-to-be-trucked-to-landfill/>)

Gloucester coal seam gas project.

AGL project to dilute 2500 tonnes of salt a year will be sprayed over the surrounding farmland as a means of "Beneficial" use of the projected 37,500 tons that would be produced over a 15 Year period. An outcome that independent geo-technical engineer Professor Philip Pells said could be disastrous for the environment.

2 Years later.

Regulators found it left behind unacceptably high levels of salt and heavy metals. But as Professor Pells points out, in bewilderment, diluting the salty water does not reduce the amount of salt. "And given that dilution does not reduce the amount of salt, what happens to the salt?"

(<http://www.smh.com.au/environment/water-issues/agls-irrigation-trial-using-csg-waste-water-found-to-be-unsustainable-20150416-1mmf82.html>)

## Water Impacts

### EPA USA June 2004 Report

6.2 The Powder River Basin (Wyoming and Montana) EPA spoke with several individuals familiar with coalbed methane activity in the Powder River Basin area who believe coalbed methane production is causing water quantity issues. These individuals have reported that dewatering during coalbed methane production resulted in loss of water from wells and in flooding problems on the surface. Many of the drinking water wells in the Powder River Basin are screened and completed in the same formation being dewatered for methane production. According to a consulting

hydrogeologist, as much as 1 million gallons of water are pumped from each coalbed methane production well during its lifetime. Consequently, the aquifer has dropped 200 feet in some areas (Merchat, 1999).

([http://www.epa.gov/ogwdw/uic/pdfs/cbmstudy\\_attach\\_uic\\_ch06\\_water\\_qual\\_incidents.pdf](http://www.epa.gov/ogwdw/uic/pdfs/cbmstudy_attach_uic_ch06_water_qual_incidents.pdf))

## Hundreds of bores to be devastated by CSG

*At least three percent of bores across the Surat Basin will be devastated by the burgeoning Coal Seam Gas (CSG) industry despite assurances from the previous State Government and resource companies underground water will not be affected.*

*The draft Underground Water Impact Report (UWIR) released by the Queensland Water Commission (QWC) today is the first ever independent assessment of CSG activity and its impact on underground water.*

*The report shows that at least 528 of the 21,000 registered bores in the studied area will experience such water loss that legal provisions for 'make good' compensation will be triggered under petroleum and gas legislation. The modelling also shows the possibility some bores will suffer a drop of more than 500m.*

*"For many of these producers who may now be simply offered a cheque to 'make good' this loss it will be little compensation for the fact that this once fertile farmland may lie unproductive and their family's future farming livelihoods will be lost for generations," said AgForce General President Brent Finlay.*

*"Not only will this water loss affect primary producers but it will also put at risk the vibrant flora and fauna communities of this region."*

*Mr Finlay said the report is particularly alarming given the Surat Basin is one of the state and nation's key agricultural and pastoral production areas and is highly reliant on underground water for irrigation and for stock and domestic water. Furthermore, with the growing footprint of the CSG industry the issues raised in the report have the capacity to be replicated across the entire State.*

*"For years now Queensland producers have been concerned at the rate of CSG development and lack of independent science but have been repeatedly told that there would be no long term effects on their water." Mr Finlay said.*

*"Sadly, whilst today's report vindicates these concerns there is no cause for celebration," Mr Finlay said.*

(<http://www.agforceqld.org.au/edm/?story=2883>)

## *Pennsylvania Department of environmental Protection. Water Supply Determination Letters*

*The following list identifies cases where DEP determined that a private water supply was impacted by oil and gas activities. The oil and gas activities referenced in the list below include operations associated with both conventional and unconventional drilling activities that either resulted in a water diminution event or an increase in constituents above background conditions. This list is intended to identify historic water supply impacts and does not necessarily represent ongoing*

*impacts. Many of the water supply complaints listed below have either returned to background conditions, have been mitigated through the installation of water treatment controls or have been addressed through the replacement of the original water supply. This list is dynamic in nature and will be updated to reflect new water supply impacts as they are reported to DEP and a determination is made; however, the list will retain cases of water supply impacts even after the impact has been resolved.*

*See attached list 243 cases from 2009 - 2014*

[http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination\\_Letters/Regional\\_Determination\\_Letter\\_s.pdf](http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination_Letters/Regional_Determination_Letter_s.pdf)

## The Acts of Co Existence

### MINERAL RESOURCES (SUSTAINABLE DEVELOPMENT) ACT 1990 - SECT 1

#### *Purpose*

*The purpose of this Act is to encourage [mineral exploration](#) and economically viable [mining](#) and extractive industries which make the best use of, and extract the value from, resources in a way that is compatible with the economic, social and environmental objectives of the State.*

[http://www5.austlii.edu.au/au/legis/vic/consol\\_act/mrda1990432/s1.html](http://www5.austlii.edu.au/au/legis/vic/consol_act/mrda1990432/s1.html)

#### *Public Health and Wellbeing Act 2008 No. 46 of 2008*

*The Parliament of Victoria enacts: PART 1—PRELIMINARY*

*1 Purpose The purpose of this Act is to enact a new legislative scheme which promotes and protects public health and wellbeing in Victoria.*

[http://www.austlii.edu.au/au/legis/vic/consol\\_act/phawa2008222/](http://www.austlii.edu.au/au/legis/vic/consol_act/phawa2008222/)

### ENVIRONMENT PROTECTION ACT 1970 - SECT 1A

#### *A Purpose of Act*

*(1) The purpose of [this Act](#) is to create a legislative framework for the protection of the [environment](#) in Victoria having regard to the principles of [environment](#) protection.*

*(2) The principles of [environment](#) protection are set out in [sections 1B to 1L](#).*

*(3) It is the intention of Parliament that in the administration of [this Act](#) regard should be given to the principles of [environment](#) protection.*

### ENVIRONMENT PROTECTION ACT 1970 - SECT 1D

#### *D Principle of intergenerational equity*

*The present generation should ensure that the health, diversity and productivity of the [environment](#) is maintained or enhanced for the benefit of future generations.*

[http://www.austlii.edu.au/au/legis/vic/consol\\_act/epa1970284/](http://www.austlii.edu.au/au/legis/vic/consol_act/epa1970284/)

*The above Acts are mutually inclusive and self reinforce each other. The Principles define a Vision ,Objective and Values,and should be the cornerstone of economic development and prosperity for all Victorians.*

## **DEC Commissioner Martens Will Issue a Findings Statement Early Next Year**

### **to Prohibit High-Volume Hydraulic Fracturing**

*"I have considered all of the data and find significant questions and risks to public health which as of yet are unanswered," said Dr. Zucker. "I think it would be reckless to proceed in New York until more authoritative research is done. I asked myself, 'would I let my family live in a community with fracking?' The answer is no. I therefore cannot recommend anyone else's family to live in such a community either."*

<http://www.dec.ny.gov/press/100055.html>

### **Recommendation**

*That Government place a Ban on all onshore gas development as it is not in the "Public Interest ".*

Thank you for reading my submission