

I am a concerned community member. I first became aware of unconventional gas through viewing the movie "Gasland" (in 2010). I decided to observe if Hydraulic and other Unconventional Gas extraction techniques were being considered for use within Western Australia.

I believe there is a great deal of evidence to support a permanent ban on Hydraulic Fracturing within West Australia.

The flammable methane emissions now in the Condamine River in Queensland are a type of environmental outcome we do not want in West Australia. (<https://www.youtube.com/watch?v=NvJAKVnK4qM>). Nood and Narelle Nothdurff have a 860 acre farm in Queensland. Their property was transformed into an industrialised gas field with four processing plants and seven gas wells. Four vents within 80 metres of their home have signs indicating the gas emissions are highly flammable. (<https://vimeo.com/106788676>). The noise pollution of 66 decibels has impeded sleep.

If I understand correctly, the Department of Mines and Petroleum issues, grants and supervises the hydraulic fracking licences. One would wonder if supervising what one had approved of might be a conflicting position. Especially if the Department involved was not seen as disinterested in the process.

Another issue, is the aspect of social license, a contingency that is part of the lease grant. Social license means that a project has the ongoing approval of the local community.

The West Australian population is not commonly familiar with differences between offshore and onshore gas extraction, land and water impacts of fracking, lack of veto over land access by Mining companies and the common outcome of non-viability for many forms of agriculture after hydraulic fracture use. This means that the population cannot be said to have given an informed consent to the process. Therefore social license cannot be said to be given by a population under-educated as to what the process entails.

In terms of social license within the South West of WA, I was part of a Caversham FrackFree group that surveyed Caversham vineyards. The vineyard and tourist venture owners, were not aware of the techniques involved in Hydraulic fracturing. The Caversham group were opposed to fracking, once it was explained. They were very independent small business owners. They were not sympathetic to governments or corporations interfering or changing their daily, private, work environment-their vineyard, horse stud, tourist stay etc. The idea of a one pipeline, let alone many, crossing their property and any loss of autonomy over their land, was an abhorrent idea.

Another issue is water use. Rainfall decline in SW Australia over the last 40 years is linked to greenhouse gases and ozone depletion. (www.abc.net.au/science/articles/2014/07/4044314.htm). Given, we are a dry continent, with reducing rainfall, it is intemperate to allow an industry that is extremely water intensive. A single shale gas frack uses 11-34million litres of water. Wells are often fracked on multiple occasions magnifying these figures.

The massive volumes of waste water produced may be stored in large ponds, or partially treated and reinjected back underground. This process can lead to earth tremors. (newscientist.com/article/dn21120-how-fracing-caused-earthquakes-in-the-uk/)

If I understand correctly, one of the areas of investigation under the inquiry-involves investigating a potential model of suitable regulations for the industry, if allowed in West Australia.. There is growing evidence to show that even strict regulations are simply not enough to protect the West Australian community.. Industry studies and independent analyses indicate inherent engineering problems including uncontrolled and unpredictable fracturing, induced seismicity leading to an increase in earth tremors, plus well casing problems, infrastructure integrity issues, well casing collapse, and leaks that cannot be prevented despite apparent "best practice" regulations. An example-if the industry becomes established in the Kimberley and other areas of remote locations, how likely is it that the relevant Department will have the resources to monitor them?

I conclude that the West Australian Government should ban unconventional and Hydraulic Fracture Stimulation gas extraction immediately. I don't think that an informed West Australian community, would accept the effects on water quantity, agriculture, tourism, water drinkability and an environment safe for human health, that the industry would produce. The economic losses to agriculture and tourism would weaken our State. Thank you.

