

SUBMISSION TO W.A SCIENTIFIC INQUIRY INTO HYDRAULIC FRACTURE STIMULATION IN W.A 2017

By: Cliff Harris

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PERSONAL DETAILS:

Retired school teacher, concerned community member.

Have had recent experiences with the matter of fracking while in the Eastern States over the last six years .

Motivated to place a submission before the panel because of what I have learnt in these years about the dangers of the fracking process (and indeed the whole unconventional gas mining process).

The dangers involved in this process not only effect me as an individual but more importantly the whole community and particularly the W.A environment .

EFFECTS DIRECTLY ATTRIBUTED TO FRACKING:

Anyone who has researched the processes involved in the Hydraulic Fracturing method, and seen some of the outcomes, will have formed the opinion quickly and definitely that it is an unsafe mining practice for a large number of reasons. Some of these are as follows:

- As fracking involves the injection of a large cocktail of very toxic chemicals into the seam (be it coal or tight sands or any other such) under high pressure (in order to fracture the seam and hence release the gas), there is no guarantee as to where the fracturing extends to and where the released gases actually go. Likewise there is no guarantee as to where the injected chemicals will go.
- In addition, the fracturing of the seam can result in the fracturing of other layers within the Earth. There have been multiple recordings of increased subterranean movements (earthquake tremors) in areas where fracking is practiced (U.K, U.S.A).
- Even more disturbing is the fact that, despite the mining industry's claim that the bore casings used to get the chemicals down the bore and the gas up are completely sealed, there is evidence that chemicals and gases are in fact released into the surrounding layers.
- The layers of most concern to my mind are the aquifers (More on this later).
- Most of the chemicals are known toxins, some of which are carcinogenic, while others, are in fact untraceable once in the water table or anywhere else (no known tests for detection).
- Another "side effect" of the fracking process is the initial removal of the water in which the targeted seam is located. For every bore drilled (and this includes exploratory bores) millions of litres of water are removed from the seam, the effects of which are as follows:

- (i) The water table drops – not only effecting the arability of the land above (farmers in some cases have to walk off their land) but also the native plants.
- (ii) The water that is removed is salt water and has to be disposed of correctly. (In parts of Queensland and N.S.W this has not been done. This huge quantity of salt water (and the chemical cocktail that initially rises with it) has been “stored” in huge “evaporation ponds”, the theory being that evaporation will keep the ponds from overflowing. These ponds have been known to overflow. The ponds are lined with plastic sheeting which has the potential to rupture thus allowing the sludge to escape into the groundwater, creeks, etc.
- (iii) Besides the escape of toxins into the aquifers, fugitive emissions of methane have been seen to emerge from the water in surrounding bores (farmers), into the waters of rivers ,even those at considerable distance from the bore, (as evidenced in the Condamine River in Queensland) and into the atmosphere from the well-head. All of these instances have actually been recorded with appropriate meters by qualified people (scientists from the Southern Cross University in Lismore, N.S.W for example).

INDIRECT EFFECTS OF UNCONVENTIONAL GAS MINING

1. HEALTH ISSUES.

There have been many cases of human health issues exhibited particularly by people who live close to unconventional gasfields. These include headaches, nausea, breathing difficulties, nose bleeds and even possible birth defects. This is already evident in places like Chinchilla and Tara in the Darling Downs of Queensland.

Health issues also extend to the health of crops and livestock which ingest the gas and toxins involved through the air, water and soil.

2. SOCIAL ISSUES.

The creation of gasfields for this mining method results in a number of things:

- (i) As the infrastructure of the gasfield is spread over large tracts of land (pump stations, pipelines, access roads) the result on farming practice is quite severe as it divides the property into hard to manage sections and disturbing the livestock (aside from the water quantity & quality question).
- (ii) The gasfields are often located on land which is particularly suited to farming due to it's enormous fertility, and since we as a human population are soon to face massive food shortages due to increasing population, should be protecting this land for food producing purposes.
- (iii) People who own properties anywhere near a gasfield will experience a massive reduction in the value of their property, even if they can sell it.. Nobody wants a farm which is incapable of producing, and they certainly

don't want to live next to a smelly, noisy, health threatening gasfield. Farmers in Queensland have been forced to walk off their properties for these reasons.

- (iv) It has often been claimed that the mining activity (of any sort) will bring employment and prosperity to a town or region. This is a false claim. Rather what results when the mining company moves in, after perhaps an initial short-lived increase in employment, the mine (gasfield) takes very little manpower to operate. Not only this but the workers employed in the initial stages are usually imported with the locals missing out.
- (v) The presence of a mining company in a town has been known to cause effects such as the increase in rental costs (which non-miners can't afford), the demise of smaller shops in town since many of the miners either fly in-fly out or purchase their goods from larger centres. Acrimony between the haves and have-nots can also tend to divide a town.
- (vi) The fact that a mining company can walk onto a property and start mining (despite the fact that they may offer some minimal compensation or purchase price) is very disruptive to a person, their family lifestyle or livelihood and the community as a whole. (Aboriginals have experienced this majorly for many decades and continue to do so).

SUMMARY:

In summary I believe that unconventional gas mining and Hydraulic Fracturing in particular pose massive, in many cases, irreversible damage to Western Australia's environment and peoples.

If allowed to proceed, major damage to aquifers will result. We already rely heavily on them to supply our towns including Perth with clean, drinkable water – even the Artesian basin which transverses Australia can be threatened.

An even wider picture emerges when you consider our atmosphere where global warming is of international concern (methane gas is 30 times more effective than carbon dioxide as a greenhouse gas).

Given that the world is moving away from fossil fuels and Australia has a abundance of alternative energy resources I find it impossible to comprehend why Australian governments are continuing to consider allowing fossil fuel mining to expand, even supporting it in many cases (Adani coal). Not only is it a nonsense environmentally but also financially. At the moment, private enterprise appears to be moving towards alternative energy far quicker & more willingly than government.

I therefore ask that your panel make the recommendation to the W.A Government that Hydraulic Fracture Stimulation be banned in W.A.

In good faith

Cliff Harris