Environment and Public Affairs Committee

From:	Guy Tunbridge
Sent:	Wednesday, 18 September 2013 12:49 PM
To:	Environment and Public Affairs Committee
Subject:	Re: Inquiry into the Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas
Attachments:	Fracking.pdf

Hello,

(please see attached for a printed and signed copy of the below email)

I have recently done some research into 'Fracking' and its effect on groundwater and air quality near the well's drilled in the United States of America. I am not a scientist and have simply been doing this via information available on the Internet, however, I am citizen of Australia and would like to send my thoughts on to the committee investigating the implications for Western Australia of hydraulic fracturing for unconventional gas to consider.

There is a large amount of information available on this subject, quite a lot of which seem to indicate known issues with seepage of methane and possibly other toxic or dangerous chemicals to ground water or the surrounding air which would affect future use of land. I would personally like to see a total ban on the practice in Australia until this can be verified, but if that is not possible it should at least be very carefully regulated on the installation of these wells with measurement requirements, periodic tests both before any well installation takes place and after, and a regulator in charge of enforcing changes if problem levels are detected. The main problem with the US investigations are a lack of proof or evidence around levels of toxicity in drinkable water and air taken from before the well's were drilled to compare to afterwards.

To address point **a) how hydraulic fracturing may impact on current and future uses of land**: We need to ensure water, ground and air samples are taken of nearby areas to those which shall have a well drilled into them, before drilling commences, and stored in a publicly accessible archive. In fact, I would think it should be made law to take regular air, water and ground samples continuously for the lifetime of the area surrounding each well and to see if any trends can be charted with changes to methane or other dangerous chemicals.

It does appear possible for wells to be drilled that do not cause leaks into the groundwater or air, however, due to the reliance on cement (and almost nameless contractors to install this cement) to contain leaks, it seems difficult to tell whether the cement will hold its structure and stop any leaks on any given well. To ensure no damage occurs to the air, groundwater or land, alternatives to cement need to be investigated and if possible enforced.

The following articles relate to some level and from what I have read of them feel that they hold important information for you to consider as part of the investigation. The Wikipedia articles contain references to further reading as needed.

- http://en.wikipedia.org/wiki/Environmental_impact_of_hydraulic_fracturing_in_the_United_States#Groundwater
- http://en.wikipedia.org/wiki/Environmental_impact_of_hydraulic_fracturing#Groundwater_contamination

- http://www.thefriendsvillegroup.com/HydraulicFracturingReport1.2008.pdf
- http://en.wikipedia.org/wiki/Hydraulic_fracturing_in_the_United_States#Groundwater_quality_studies
- http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1595092
- http://www.scientificamerican.com/article.cfm?id=can-fracking-be-done-without-impacting-water
- http://www.pnas.org/content/108/20/8172.short

There is also a 3 year investigation currently taking place by the Environmental Protection Agency (EPA) in America, you can see the progress report here: http://www2.epa.gov/sites/production/files/documents/hf-report20121214.pdf and can also read more about their activities here: http://www2.epa.gov/hydraulicfracturing. This also relates directly to the committee investigation of **how hydraulic fracturing may impact on current and future uses of land,** and could be used as a source of information to foresee any potential effects of hydraulic fracturing in WA.

At a minimum I would feel uneasy at allowing any company or organisation to move forward on 'Fracking' in Australia until the outcome of that investigation is made public. If it is at all possible that 'Fracking' is causing any environmental problems then we should not in good faith move forward until that is established or not.

Yours Sincerely,

Guy Tunbridge

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- http://www.theinvestigativefundgroup.com/HydraulicFracturingReport12008.pdf
- http://en.wikipedia.org/wiki/Hydraulic_fracturing_in_the_United_States#Groundwater_quality_studies
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15/9/13

Guy Tunbridge