

Submission to:

**WA Scientific Inquiry into Hydraulic Fracture Stimulation in WA
2017**

Name:

Joan Sharpe



Date:

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I am a community member concerned about the impact of Hydraulic Fracture Stimulation (HFS) on the environment of Western Australia. I am making this submission based on evidence available from the use of HFS and other Unconventional Gas Mining practices elsewhere in Australia and international sites where this is practised.

- There is a strong physical impact on the land including the industrialisation of the landscape by positioning multiple gas wells, pipelines, processing plants, compressor stations, wastewater dams and treatment plants, these requiring many access roads.
<https://www.sciencedirect.com/science/article/pii/S026483771630076X>
- Landholders may have no control as to where these structures are located on their property. Once this infrastructure is in place, restoring the natural landscape and restoring farm productivity is highly unlikely to occur.
[Allred, B. W., Kolby Smith, W., Tridwell, D., Haggerty, J. H., Running, S. W., Naugle, D. E., & Fuhlendorf, S.](#)
[D. \(2015\). Ecosystem services lost to oil and gas in North America. Science, 348 \(6233\), 401-402.](#)
- Not only may farmland be affected but forest and natural bush could be impacted affecting vulnerable remnant flora and wildlife. Severing of wildlife corridors has been shown to have significantly unfavourable impacts.
[Williams J., Stubbs T. & Milligan A. \(2012\) An analysis of coal seam gas production and natural resource management in Australia. A report prepared for the Australian Council of](#)

Environmental Deans and Directors by John Williams Scientific Services Pty Ltd,
Canberra, Australia

- Human physical health may be compromised by toxins in the water, soil and the air. As a consequence local farm produce may be contaminated.

McCarron (2013). Symptomatology of a gas field. An independent health survey in the Tara rural residential estates and environs

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0154164>

Haswell (2017) Health concerns associated with unconventional gas mining in Western Australia: A critical Review <https://www.mja.com.au/system/files/issues/cor11023.pdf>

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- Human mental health can be compromised by visual pollution and change of aesthetics especially open green space.
Hossain D. et al. Impact of the mining industry on the mental health of landholders and rural communities in southwest Queensland (2013). *Psychiatry*, 21:32-37.
- HFS uses and potentially contaminates vast volumes of water which is irresponsible both in the short and long term. We know we have a drying climate and I feel it is irresponsible to squander this resource.
<http://www.psr.org/assets/pdfs/fracking-compendium-5-water-excerpt.pdf>
- Multiple chemicals are used, many of which have been shown to be toxic, further compromising water availability.
National Toxics Network (April 2013). *Toxic Chemicals in the Exploration and Production of Gas from Unconventional Sources*.
- Methane gas has been found leaking from wells and water points, another concern for water security as well as global warming.
Life cycle greenhouse-gas emissions from electricity generation: A comparative analysis of Australian energy sources. *Energies* 5(4): 872-897.
- Australia, in particular Western Australia, has sufficient off shore gas resources which makes it questionable whether onshore gas is necessary at all. 1.19
<https://theconversation.com/memo-to-coag-australia-is-already-awash-with-gas-80960>

The reasons above concern me greatly both for the health and wellbeing of communities and land in the short term, but more seriously in the long term. We all rely on healthy and pollutant free farming regions and

rural environments for our food and water. Many unconventional gas extraction practices have not been in use for long enough to know the full extent of their potential negative impacts on the environment including implications for human health and as we are only temporary custodians of our environment I feel it is unethical to presume to pollute it. As humans we do not exist in a vacuum and our planet's wellbeing relies on the complex relationships between all the organisms which share it.

I feel it is appropriate and necessary to ban Hydraulic Fracture Stimulation and other Unconventional Gas Mining in Western Australia based on what is currently known of the industry and following the example of local councils, other states and other countries who have been concerned enough to do so.