

To the Environment & Planning Committee,

I am a retired real estate agent, mother of two children and grandmother to four grandchildren aged four and under, I live in . I am writing this submission as I am fearful for my children and grandchildren's future should UCG Mining be allowed to operate in Victoria. My concerns are about risks and impacts on our water, air, land and environment.

Firstly, I am totally opposed to all forms of Unconventional Gas Mining (Including CSG, tight gas and shale gas and underground coal gasification).

I am a member of Gasfield Free Glenelg and have recently undertaken a commitment to survey Cape Bridgewater residents to ascertain if they want gasfields in their community. So far we have received a favourable response in opposition to the UCG Industry. Shortly we believe we will be declaring Cape Bridgewater Gasfield Free and the Gas Industry will have no social licence to operate in our Community. I personally will never support this industry no matter what regulations are put in place.

My concern about this Industry are as follows:

Impacts on Agricultural land, affecting food production, our protected forests and native bushland that will be cleared and fragmented, including rivers, creeks, springs, eco systems, our wildlife, contamination of fish, marine life and the possible elimination of already threatened species due to the gas field developments.

What impact on climate change will the fugitive emissions of methane have when it escapes from the well head, pipes and machinery. We all know of methane which is a powerful green house gas and has approximately 21 times more global warming potential than carbon dioxide. Also the quality of the air concerns me for people living in or in close proximity to a gasfield from venting and leaking of toxic gases including volatile organic compounds (voc's) and hydrocarbons including benzene, toluene, ethyl benzene and xylene.

The seven hundred plus chemicals (some which I believe are carcinogenic) that are pumped into the ground during a fracking operation are a huge concern. I am worried about the long term consequences on our water, food chain and health should these chemicals make their way into our ground water supply and in doing so contaminate it and our environment. What long term consequences will these chemicals have? A typical 15 million litre fracturing operation would use 80-330 tons of chemicals.

The fracking water that contains brine, toxic metals & radioactive material is repeatedly used and eventually ends up in plastic lined holding ponds is of concern. These ponds can be up to 100 hectares in size and there will be hundreds of them. What's going to happen to the chemicals and salt laden waste water if there is a flood or a pond breaks its banks which has happened in NSW where it flooded a neighbouring cattle farm. The fact that the ponds are exposed for evaporation purposes is of concerns as birds and wildlife may land in or drink it with possible dire consequences.

Gas well integrity is critical for the protection of ground and surface water, especially in the long term. Who is going to monitor them for methane leaks? It would be physically impossible. Also the steel and concrete casing may crack or corrode due to natural ground movement and chemical reaction over time. There are no guarantees!

The re-injection of water into the well which is part of the fracking process has the potential to cause seismic activity.

March 7, 2014 - US Geological survey researchers published a study confirming that Oklahoma's damaging 5.7 magnitude earthquake in 2011 was caused by fracking waste water injection. \* cited NY Health Report

What impact will UCG Mining have on our regional roads with many already in poor state due to the logging trucks. With the large number of trucks, earth moving equipment & extra vehicles coming and going its inevitable they will worsen.

Also, what Impact would gas infrastructure have on a small community that relies heavily on tourism for their livelihood. Certainly would not be an attractive sight. People are attracted to the coastal areas for their natural beauty and clean air and don't want to see or smell gasfields next to their accommodation. It would be the death of tourism in many communities.

It is a well understood process in over exploited ground water systems around the world that subsistence over large areas can affect surface water systems, eco systems, irrigation and grazing land. It is also possible that hydrolic fracking can lead to subsistence.

Why is it that mining companies have unlimited supply of water from our aquifers, when the farmers up north are battling drought conditions.. They can draw millions of litres a day. Shale and tight gas exploration require large quantities of water for fracking. It bothers me that the State Governments are bending over backwards for mining companies, changing water acts and regulations to accommodate their needs. As Australia is a dry continent and ground water is a vital source for people, agriculture and the environment, to me this is insane! The removal of large quantities of water may deplete ground water and draw down the water table which could impact on farmers effecting the level and pressure of bore water which they so heavily depend on.

There are no regulations protecting residential areas from having a gasfield over their back fence. Suddenly the planning schemes are null and void when it comes to big mining companies, as are the environmental overlays that exist in certain areas for obvious reasons. I believe the mining companies prepare their own Environmental Effects Statement. Where I live in Cape Bridgewater, South West Victoria we are covered by an Environmental Significance Overlay ESO1. It states,

Coastal Areas.

#### 1. Statement of Environmental Significance.

The Shires coastline is a significant environmental resource and long term public asset which should not be compromised by inappropriate development. Coastal environments must be protected especially features of ecological, geological, geomorphological, cultural and historical significance.

#### 2. Environmental Objectives to be achieved.

To ensure the long term protection of coastal and marine ecosystems. To prevent inappropriate developments in coastal areas that is likely to prejudice the long term environmental values of the coast.

Some of the natural wonders of Cape Bridgewater include a seal colony, blowholes, petrified forest, fresh water springs, lakes, huge sand dunes, Blacks Beach, Whites beach, Discovery Bay, pristine Bridgewater Bay beach and much more. Given all the above information I cannot believe that the whole of Cape Bridgewater and surrounding farmland is covered in PEP 150 Mining Permits until 2019. In fact Mawson Petroleum once being granted an exploration licence can commence drilling on my property within 21 days of giving me notice. It's like you don't have any rights anymore. My home is now devalued due to the mining permit. Yet another concern. Could beautiful Cape Bridgewater become industrialised? A terrifying possibility.

Whilst CSG is not currently mined in Victoria, it is an unsustainable fossil fuel and there are cleaner energy alternatives that are commercially and economically available to be developed.

In Australia right now investment in the coal seam gas industry is delaying investment in clean safe and sustainable energy. The unconventional gas industry is a short lived industry of approx. 25-30 years with 95% of its gas production going overseas and it is an unacceptable risk to human health, our water, our farmland and our environment.

I have made it my business to educate myself about this invasive industry and am deeply disturbed at what I have discovered. I am in contact with families that live in and near a gas field and they say it's a living hell! I have also read the 185 page health report that prompted Governor Andrew Cuomo to ban fracking in New York. The report is disturbing to say the least. I am aware of other countries and states who have put the health and well being of their people and the destruction of the environment as a priority over making more revenue from Unconventional Gas Mining. Germany, Bulgaria, France, Ireland, State of Maryland in USA, Wales to name just a few.

I have seen aerial photos of Chinchilla, Tara and the Darling Downs and can see how this invasive industry sprawls like cancer over the once beautiful, productive agricultural and scenic landscapes and it turns into an industrial wasteland. Never to be the same again!

Who's going to be left to clean up the mess in 25-30 years time when the gas is all extracted? The Gas Companies? I don't think so. It will be the communities but the people didn't want it! Approx 240 communities across Australia have declared they don't want UCG Mining of which 60 communities are in Victoria, that means no social licence.

There is considerable scientific uncertainty over the long term impact of unconventional gas production on the environment and our health. Concerns centre at the lack of data and the lack of data sharing of known data on groundwater systems and coal seam, shale and tight gas activities.

I do not wish to see Victoria's agricultural land and coastal land industrialised as we have seen in Queensland & New South Wales. I believe there is a compelling case to place an outright and permanent ban on all onshore unconventional gas drilling in Victoria. I do not believe that this industry can co-exist safely with other land users like farming, conservation and tourism.

The Victorian Government has a responsibility to me, my children, my grandchildren and all Victorians to provide us with clean, uncontaminated drinking water, protect our food production, protect our environment, protect our tourism industry and protect conservation.  
Please BAN Unconventional Gas Mining in Victoria.

Yours Sincerely

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