

**From:** Anda Banikos [REDACTED]  
**Sent:** Thursday, 9 July 2015 12:09 PM  
**To:** EPC  
**Subject:** UCG Inquiry submission

Dear Committee members,

I am a teacher and active community volunteer living on a small rural property near Fish Creek in South Gippsland. Before entering the teaching profession, I spent many years working in engineering consultancies with mining companies.

I am deeply concerned about unconventional gas mining in Victoria because of the potential of any unconventional gas mining to irrevocably pollute our aquifers and consequently impact severely on our food production capacity and the health of the people and environment of Victoria. Economically, this would be a huge blow to our agricultural and tourism industries, both of which rely on our clean, relatively unspoilt environment as major draw cards for their products.

I urge you to place a permanent ban on all onshore unconventional gas drilling in Victoria.

#### Terms of Reference:

##### 1. the prospectivity of Victoria's geology for commercial sources of onshore unconventional gas

The aquifers in Victoria are not fully mapped and our state is riddled with undocumented mining shafts which pierce aquifers and provide conduits for leakage from one aquifer to another. Therefore, if one aquifer became polluted with toxic compounds from unconventional gas mining activities, these toxins would leach into nearby, but not contiguous aquifers. This would result in groundwater unsuitable for consumption (by humans, stock and wildlife) or irrigation of crops.

Any short term financial gain from extracted gas would be hugely outweighed by the financial losses to our economy due to long-term rendering of the land unsuitable for agriculture and tourism, the loss of associated jobs and the cost to the community of health issues due to the unconventional gas mining.

##### 2. the environmental, land productivity and public health risks, risk mitigations and residual risks of onshore conventional gas mining

Peer reviewed studies of regions where unconventional gas mining occurs (such as the United States of America and Queensland) have found the following :

#### Health Impacts

- local children have near universal and severe skin irritations and asthma which worsens with proximity to the gas fields. Severe and recurrent nosebleeds are common.
- Severe neurological effects: McCarron found one third of children at Tara had parasthesia (abnormal sensations and numbness) and some had "abnormal movements" (central nervous damage).

- Severe effects on the unborn: US studies have shown 100% increase in neural tube defects and 30% increase in congenital heart defects.
- Huge increase in particulates which are class one carcinogens
- Wide range of toxic chemicals which show levels 10-100x above safe levels
- Existing health reports have suffered from poor methodology such as being based on affected people volunteering information only or intermittent testing which was discontinued, and are also hampered by the confidentiality agreements

## Environmental Impacts

- release of very potent green house gases including methane, that nullify any GHG saving associated with the transition from coal to gas
- unconventional gas extraction uses masses of water, draining our scarce water resources
- aquifer contamination with toxic chemicals
- release of naturally occurring BTEX compounds and other contaminants into the atmosphere and into groundwater

### 3. the coexistence of onshore unconventional gas activities with existing land and water uses

The infrastructure required for gas wells would interfere significantly with the viability of the dairy farms and tourism operations in our area.

#### a) agricultural production and domestic and export market requirements

South Gippsland is currently marketed as a clean food production area. Many organic farms and businesses have been set up here, catering to the local, tourist and export markets. This is a growth area in the South Gippsland economy and these highly profitable niche markets would be lost and many businesses unable to operate if our area was subject to unconventional gas mining.

#### b) the legal rights of property owners and the impact on property values

I am concerned that mining seems to operate outside the boundaries of property rights of landholders. This results in degradation of land not being made good, mining related pollutants and infrastructure not being removed and consequent loss of property value. Some properties in the USA and Queensland have been so badly damaged by the unconventional gas mining that they have been rendered unsaleable.

#### c) implications for local and regional development, investment and jobs

As I have already mentioned in point a), the impact on agriculture in South Gippsland would be devastating. The other main industry in our area is tourism, which relies on the unspoilt beauty of our natural environment, particularly Wilson's Promontory. This industry would cease to be viable if pollution (chemical and visual) due to unconventional gas mining occurred.

Without these two industries, our region would not have a sustainable future.

Regards

Anda Banikos

