

# Coal Seam Gas Extraction is Poisoning our Water - Above ground and Underground

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By Trevor Crouch LDA 20 July 2011

Right now extracting coal seam gas from more than 80 sites in Queensland and New South Wales is poisoning water both above ground and underground.

Two such toxic sites which have resulted in government action are the Arrow Energy wells at Moranbah west of Mackay and the Cougar Energy site near Kingaroy. Local residents have reported a number of other toxic sites.

This poisoning of water supplies is occurring even though coal seam gas extraction is in its infancy. The thousands of wells being planned will increase the problem a thousand-fold.

**As sure as night follows day, it will destroy the lifeblood of agriculture in this country, our underground water.**

Coal Seam Gas cannot be extracted without poisoning water supplies both above ground and underground.

The reason is, Coal Seam Gas is Methane bonded to the surface of coal particles. (This is a different location to "Natural Gas" which exists in the space between grains of sandstone and similar types of rock.)

The water which fills the coal seams keeps the gas in place as a thin film on the coal. It stays benign like this for thousands of years.

The water becomes heavily polluted with heavy metals and toxic chemicals such as Benzene, Toluene, Ethylbenzene, and Xylene. Because it is not disturbed it poses no threat to the environment, or the subaquifers which flow through the same areas with pure water.

To extract the Coal Seam Gas, a well is dug and the gas, together with vast quantities of toxic water, is pumped out. The water is released onto the surface where it contaminates the natural flow of rain water over the ground into streams, into rivers, into dams, and into the tap in your kitchen. There is no way of stopping this contamination .

But the final coup de grace to our pure water supplies is "Fracking ". This is fracturing of the coal seam to release more methane by the high pressure injection of enormous volumes of chemically treated water.

Much of this chemically treated fracking water remains underground, where it leaches into the subaquifers and poisons our underground water. To claim otherwise is a total nonsense.

The polluted water which keeps the methane in place is also able to leach through these fractures into the underground water. A double hit on the pure water.

In her recent report, Dr Mariann Lloyd-Smith of the National Toxics Network points out that we have no idea what chemicals are being injected into our water supplies because the mining companies claim such information is a “trade secret”.

There are more than a thousand products involved in gas extraction operations in the United States, and governments in Australia do not demand detailed information on what chemicals are being added to the fracking water here.

Dr Lloyd-Smith has been able to confirm that among the chemicals currently being used in this country are: **hydrochloric acid, glutaraldehyde, ammonium persulfate, dimethyl formamide, methanol, naphthalene, mineral oil, potassium chloride, ethyl glycol, and quite a few others.**

These will end up in the water we drink and the food we eat. There is no method of preventing this happening if coal seam gas extraction is allowed.

Professor Peter Doherty of the University of Melbourne points out that many of the chemicals released into the water supplies by fracking are “volatile organic compounds” which easily contaminate water and are released with water vapour.

He says it is well established that long term exposure to even small amounts of these chemicals can affect the bone marrow of humans causing **anaemia** and increasing the risk of **leukaemia**.

The chemicals also damage the nervous system, liver, and kidneys. One of the chemicals being injected into the water, ethylbenzene is almost certainly a human carcinogen.

A man who really knows mining is the recently retired CEO of Woodside, Mr Don Voelte. When stepping down recently after six years at the helm of this big mining company Mr Voelte said he believed his biggest achievement was **stopping** Woodside being involved in coal seam methane extraction.

“In four or five years we will see the massive damage to Australia’s water supplies that this mining will inflict” Mr Voelte said. “I didn’t want to be a part of this. I want to sleep soundly at night”

There is already both State and Federal Legislation in place to protect the environment which Coal Seam Gas Extraction cannot possibly comply with.

**All we ask is that this legislation be applied immediately. That Coal Seam Gas Extraction be banned totally for all time.**

Members of this committee can then be assured they will be praised by their grandchildren and can also sleep soundly at night.

If you do not immediately ban coal seam gas extraction you can look forward to seeing your grandchildren dying from cancer and leukaemia , and a sign put up on our Great Artesian Basin reading:

## **Poison Water - Unfit For Human Consumption**

God help us if that day ever arrives.

Trevor Crouch