



## VALLEY WATCH INC

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Creating a sustainable future

## Mining threats on the North Coast

Coal Seam Methane (CSM) mining is set to come to the North Coast and Anchor Resources is proposing to mine antimony at Wild Cattle Creek near Dorrigo. Both threaten the region's water supply.

CSM produces methane, a toxic, odourless and highly explosive gas which is twenty times worse for the environment than CO<sub>2</sub>. Antimony is a toxic metal very similar to arsenic.



Wild Cattle Creek is part of the catchment of the Clarence River; CSM test wells have been drilled at Tullymorgan and Whiporie which are close to both Bungawalbyn Creek (flowing into the Richmond River) and Broadwater Creek (flowing into the Clarence River).

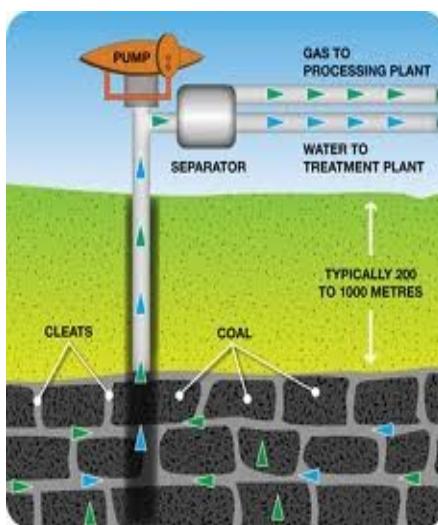
Barb and I are going to a forum in Dorrigo on May 15 organised by DEW - Dorrigo Environment Watch. I'll have more information on the situation at Wild Cattle Creek in the June newsletter. This month we'll try to understand a bit more about Coal Seam Methane, 'fracking' and the threats to health and the environment posed by methane extraction.

### What is Coal Seam Gas?

Coal seam gas is methane found in coal seams and is not to be confused with natural gas - i.e. methane from other sources such as marshes and landfill. The coal seam acts as a water aquifer, and therein lies the problem.

Methane in itself is a cleaner fuel than coal or oil, producing less CO<sub>2</sub>. The problem lies in obtaining it. Wells drilled into the coal seams don't produce sufficient gas until the coal seam has been 'fracture stimulated'. This process is known as 'fracking' and it creates breaks in the coal to create pathways through which the methane can flow.

This fracturing is usually achieved by pumping a fracturing fluid into the coal seam at pressures sufficient to crack open the rock. When the pressure is high enough, the coal seam will fracture in one direction (wherever the seam is structurally the weakest), enabling the gas to more easily flow to the well.



Explosive methane gas coming from a tap after 'fracking'.

Fracturing fluids are primarily water-based, but they contain many other chemicals which may include acids, benzene, toluene, xylenes, ethylbenzene and hydrocarbons.

The next stage is to pump out all the water from the coal seam. This so-called 'produced water' is toxic, extremely saline and contains a very broad range of carcinogens, heavy metals and radionuclides.

This water has to be transported by road tanker for proper disposal, anything up to 100 cubic metres - i.e. **100,000 litres** - a day. But where do you 'properly dispose of' such vast amounts of carcinogenic, highly toxic liquid?

When all the water has been removed from the coal seam, the methane in the fractured seam has been freed up in the hope that it will rise to the well head ... BUT ...

### Your Committee

<b>President:</b>	Gary Whale
<b>Vice-President:</b>	Athena Batcheldor
<b>Secretary:</b>	Ronwyn Lopez
<b>Treasurer:</b>	David Lopez
<b>Committee:</b>	Gary Brisbane Carolyn Jeckel Barbara Whale Ros Woodward

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rocks have fault lines which means the methane can find uncontrolled avenues to the surface.

More alarming still is the threat of the contamination of aquifers and groundwater used for drinking water and agriculture. There are many instances of methane coming out of people's taps; in Queensland over 50% of wells tested leaked methane.

### Noise and infrastructure

Lots of heavy machinery is needed to drill gas wells. The cost of hiring drilling rigs makes it necessary for them to operate 24 hours a day, 7 days a week where they can. Lots of trucks will come and go carrying equipment, delivering supplies and carting away toxic water. Pumps will operate day and night. A large cement pad will be laid and a security fence installed at each well head.

Lights will be on continuously. Pipelines will be laid down to connect each well head to a main gas pipeline which will flow to compressor stations. A compressor station is very large and noisy; apart from maintaining pressure in the gas pipeline it also separates out unwanted hydrocarbons from the gas which are then vented into the atmosphere. Many hydrocarbons cause cancer.

### Water tables

CSM mining poses a serious risk to fresh water aquifers. The huge volumes extracted from the coal seam can then lead to a major depletion of connected aquifers which would be used for drinking water, agriculture and fire fighting. The large assortment of chemicals used for drilling and 'fracking' cause serious contamination to fresh water aquifers and running groundwater streams and rivers.



### Environment

The pollution of water tables and rivers leads to the mass death of all types of living creatures and plants. The installation of full scale industrial machinery scares away wildlife. The uncontrolled venting of fugitive methane emissions poisons the atmosphere.



Methane gas escaping from a test well near Whiporie

### Kyogle calls for ban

On Monday April 18 2011, Kyogle Council voted unanimously to write to the NSW Government asking for a moratorium on coal seam gas mining. Cr Janet Wilson's motion asked that the state government impose a moratorium until "such times as the impact of CSG on water supplies, the environment and personal property and amenity is understood through independent research".

- Northern Rivers Echo 21.04.2011

### Learn More

The Clarence Valley Conservation Coalition (CVCC) and the Clarence Environment Centre (CEC) are hosting an information evening at the South Grafton Services club on

#### Thursday May 19

from 6.00 pm to 8.00 pm presented by the Environmental Defender's Office (North Coast). **Be there!**

For further information, go to <http://lockthegate.org.au/>.

Much of the content of this article is based on the Factsheets available at this website.

## VALLEY WATCH NEEDS YOUR HELP

For many years Valley Watch has relied upon its stall at the Yamba Market for fundraising and education. Stalwarts like John and Grace Todd, Joan Petty, Tricia Spitzmacher and Peter Wrightson toiled to raise our profile as well as raise money for our campaigns.

In more recent years younger members, just as stalwart, have set up and staffed the stall - particularly Ros Woodward (our Market Coordinator), John and Athena Batcheldor, Grant and Imelda Jennings, Carolyn Jeckeln, Helen Tyas -Tunggal and others. Thanks to you all.

**BUT** there are times when we are rather 'light on' with staff. In April, for instance, Grant and Imelda and Helen were in Bhutan; Ronny and David Lopez were in the US and, being Easter Sunday, others of us had visitors and other commitments.

What we need are members who can help out for maybe just a couple of times a year. We have a new, easy-to-erect gazebo, Ros (bless her!) has displays to mount and the orchid to raffle, and all we need are a few new members each month so that it doesn't always fall to the willing few to staff the stall.

Even if you can only give a couple of hours - say 9.00 am to 11.00 am or 11.00 am to 1.00 pm - it would give us a break and, hopefully, a day off once in a while.

For months now I've been urging members to call by for a chat at the Market and it is encouraging to see familiar faces when you're down there. And if that's all you can manage, don't stop doing it - it really makes our day.

But if you can see your way clear to helping out once or twice a year, please stop by at the May Market (May 22) and let us know, or email us at:

[valleywatchinc@gmail.com](mailto:valleywatchinc@gmail.com)

*Gary*