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Coal seam gas holding pond in the Pilliga near Narrabri New South Wales

Flowback fluid fiasco

Not just old salty water

Flowback is the mixture of fracking chemicals and coal seam water that gets pumped out of the gas wells. The mixture is a range of heavy metals and contaminants; many at concentrations far higher than maximum health limits, including benzene at 40 times greater, chloride more than double, tolclide, iron, bromide, boron, lead and salt. Total dissolved solids are 4900mg/L which is more than 8 times the allowed maximum for drinking water (600mg/L).

When is an evaporation pond not an evaporation pond?

Rather than pay the premium price to a facility that's willing to take the waste water, or to install a mobile reverse osmosis unit, AGL now wants to hold this poisonous brew in an open dam, 400 metres from Dog Trap Creek. CSG evaporation ponds are banned in NSW due to health and environmental risks. There seems to be no plan for protecting birds and wildlife, or how AGL will respond if the dam begins to fail, or how AGL will deal with the contaminants that will sink to the bottom of the dam. These events have all happened elsewhere in NSW.

So many ifs, buts and maybes

In 2013 the government rejected AGL's initial application to store the fluid in an open dam. If they backflip now to help AGL cut costs, the fluid will be left in the open for months: either until AGL decides to pay the cost of meeting their existing waste commitment; or until sometime after the stage 1 treatment plant is constructed, which will be some-time after February 2016 when AGL makes a final decision to proceed with Stage 1 of their coal seam gas gamble in Gloucester.



Ruptured coal seam gas holding pond in Miles QLD spews waste water onto the neighbouring farm of Joe Mills. (May 2015)

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Source documents are available on our website.





A low level flood surrounds AGL's frack site next to the Avon River in Gloucester (April 2015). What happens when a major flood event hits the valley as happened at neighbouring Dungog?

The actual footprint of AGL's four pilot wells for coal seam gas near Gloucester. Now imagine 330 of these in the scenic Gloucester valley.

The shambles of AGL's coal seam gas gamble in Gloucester: Waukivory Pilot crash and burn.

The voracious coal seam gas industry and their operatives in the NSW Government keep telling the community that the state's CSG industry is "world's best practice" but with AGL's track record, we wonder how! Read on....

AGL has fracked four CSG gas wells in Gloucester and this ill-fated 'pilot' has exposed the world's worst practices: what happens when a corporation fails to plan properly; when it fails to genuinely listen to community; when the collaborating government fails to develop adequate regulations or even to enforce those minimal rules that are in place.

1. Wrong application but we'll accept it anyway.

On day one, AGL submitted the wrong type of application to the Office of Coal Seam Gas. Due to existing wells within 3km of the Waukivory wells, AGL should have submitted a full Environmental Impact Statement (EIS). Instead they submitted the easier and lightweight Review of Environmental Factors (REF).

2. We'll change the rules so you can skip the full

EIS. When Groundswell notified the OCSG of this error, they didn't ask AGL to do a proper EIS, but after nine months, the measurement process for well distances was changed, allowing the REF to stand, even though it was submitted before the change. (8 Jul

2014) <http://www.smh.com.au/environment/water-issues/legal-tweak-may-fasttrack-agl-gloucester-fracking-20140708-zsygg.html>

3. Don't worry about testing for chemicals.

Testing of all fracking chemicals in a NATA-accredited laboratory was a licence condition but the OCSG did not have these results in hand when they approved the Waukivory pilot. Results were only released after Groundswell submitted a GIPA request, in October 2014.

www.groundswellgloucester.com/resources/.../GG-MR-2014-10-28.pdf

4. Ignore all Hunter Water directives.

AGL sent its first flowback fluid to Newcastle even though Hunter Water had told AGL not to allow the fluid to enter the Hunter Water Area. AGL then sent flowback fluid to the Hawkesbury without consulting local council or community. (18 Dec 2014).

<http://www.theherald.com.au/story/2775107/agls-fracking-wastewater-dumped-in-sewers/>

5. Don't worry about finding a way to track escaping chemicals.

AGL had no approved method for tracking Toldicide migration until after they finished fracking, even though the EPA required a zero detection of this chemical in creeks and groundwater. The EPA admits Toldicide was detected but simply calls this a 'technical breach'. (20 Jan 2015). http://yoursayagl.com.au/welcome-to-agls-online-community/news_feed/news-20-jan1



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The Avon River bridge under water during a minor flood event at the AGL frack site. (April 2015)



CORRODING GAS WELL in the Pilliga near Narrabri. All those dead frogs weren't too pleased with the water quality.

6. When is a suspension not a suspension?

Even while under investigation for possible licence breaches, AGL is free to continue works in the rest of the basin with only the Waukivory program 'suspended'. (28 Jan 2015). <http://www.abc.net.au/news/2015-01-28/csg-project-suspended/6050650>

7. Don't explain detections of MEB. The other indicator that fracking chemicals may have migrated was Monoethanolamine Bromate (MEB). Spikes of this chemical occurred during fracking and there is no evidence to prove that the spikes came from another source. AGL's exceedance of the zero MEB limit is another so-called 'technical breach'. (2 Feb 2015). http://www.resourcesandenergy.nsw.gov.au/_data/assets/pdf_file/0006/542391/AGL-Waukivory-flowback-testing.pdf

8. Find yet another waste treatment plant for your toxic water. Worth's Recycling stops taking flowback fluid following detections of BTEX (17 Feb 2015). <http://www.smh.com.au/environment/water-issues/agl-loses-second-outlet-for-treating-gloucester-csg-waste-water-20150217-13gxp7.html>

9. Burn the built-up gas, never mind the toxic fumes. Additional, unplanned flaring required to release build up of gas in wells. (8 Apr 2015). <http://www.resourcesandenergy.nsw.gov.au/about-us/news/2015/statement-on-agl-gas-release-operation>

10. All gas wells will leak eventually, this one just leaked early. Gas leak detected at one well and patched. AGL does not provide information as to how long the gas had been leaking or the volume, concentrations and analysis of all gases leaked (15 Apr 2015). <http://www.smh.com.au/environment/agl-gas-leak-investigated-in-latest-blow-to-coal-seam-gas-plans-20150415-1mle90.html>

11. Cut price waste 'disposal'. AGL fails to find disposal facility to accept flowback fluid and applies to dump it in an open dam in a Gloucester paddock (21 Apr 2015). http://yoursayagl.com.au/welcome-to-agls-online-community/news_feed/agl-applies-for-waukivory-ref-modification

12. Concrete-eating bacteria. Hydrogen Sulphide gas detected in gas wells, indicating presence of Sulphate Reducing Bacteria which secrete Sulphuric acid when metabolising hydrogen sulphide. Increased risk of corrosion of well concrete and steel construction. Groundswell Gloucester flagged this likelihood in 2013. (27 Apr 2015).



Day of Action Against AGL: outside AGL Melbourne (Dec 2014)





People and their pets against coal seam gas in Gloucester (May 2015)

Frackman The Movie comes to Gloucester!

Want to see the truth about living in a coal seam gasfield? Frackman The Movie is an Australian real-life story from the coal seam gasfields of Tara in Queensland. Currently showing at communities all around Australia and the UK to cheering crowds, you can also meet the star of the film – Frackman himself – Dayne Pratzky who now lives near Forster.

After the film you can join the Q&A discussion with a fundraiser supper provided by the lovely ladies from **Gloucester Knitting Nannas Against Gas**.

Tickets \$12 available from Gloucester Health Foods or online at www.tugg.com/events/23406

WHEN: Saturday 6 June 2015 at 7.00pm

WHERE: Gloucester Soldiers Club auditorium, 32 Denison Street.



Concrete-eating bacteria in gas wells

The recent detection of corrosive hydrogen sulphide in AGL's CSG wells at Gloucester opens a new chapter of alarm for the community. Hydrogen sulphide suggests that sulphate-reducing bacteria (SRB) may be multiplying in the wells and releasing sulfuric acid, which corrodes concrete and steel. If gas well integrity is compromised, there are much higher chances of gas, fracking fluids and toxic coal seam water leaking into surrounding soil, air and water. In Narrabri, it is suspected that some wells are already being corroded by this sulphate-reducing bacteria (see photos at right).

DAMAGE TO GAS WELL caused by corroding steel and concrete at Narrabri.



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