

The Prospect of Fracking in Ryedale

1. What is fracking?

'Fracking' or hydraulic fracturing involves drilling down to great depths, in our area about 10,000 ft, to the gas-containing shale layers. At the bottom of the well, holes are drilled horizontally for hundreds of meters. To extract gas from the naturally impermeable shale, the rock is cracked open by chemical-laden water under huge pressure, containing sand or ceramic granules to hold the cracks open so that gas can escape into the borehole pipes.



Image from the successful campaign to keep fracking out of Sussex

2. What can go wrong?

- a) Impacts such as noise, vibration, floodlighting at night; disruption from numerous slow-moving heavy trucks on our narrow rural roads, construction of pipelines across our beautiful landscape to transport fracked gas and vast quantities of toxic backflow water (a few wells will produce millions of gallons, yet currently there is no clear plan for processing and disposal) – all these issues are integral to the process. There is also a possibility of low-level earthquakes, like the one which brought operations in the Fylde, on the Lancashire coast, to a halt.
- b) Contamination of water, air and soil: wells inevitably pass through aquifers (porous rocks containing ground water). Some wells will leak, through human error, earth tremors or faults in the ground, and methane gas and/or fracking chemicals, combined with contaminants from the fracked rock layers, may escape into ground water that supplies drinking water for you or your livestock. Leaks may happen at the surface too, from pipelines or containers of waste water, containers of fracking chemicals (thousands of gallons per site) and radioactive tracers, or accidents during transportation, contaminating soil and surface water. Air pollution is inevitable, from the escape of methane – a much worse “greenhouse gas” than CO₂ – and diesel fumes from the fracking pumps and trucks transporting water, chemicals and waste. This pollution creates a toxic “smog” which settles into the ground, contaminating crops and grazing.
- c) Consequent effects: only one borehole has so far been fracked in the UK, so the evidence has to be taken from the USA and Australia. Because of confidentiality laws there has been little transparency about the negative effects on human health. Still, it is known that the incidence of some cancers and endocrine defects has been greater in fracking areas than elsewhere. Soil fertility loss and negative effects on livestock health have also been noted. Spills into rivers have caused the death of huge numbers of fish.
- d) Industrialization of the landscape: if the test frack at Kirby Misperton is successful, and fracking is approved, hundreds of fracking sites are likely to appear across Ryedale, blighting the landscape for decades. This would be a disaster for local tourism and local property prices. If subsidence and earth tremors occur as a result of fracking, there will be serious insurance issues.

3. Can it be done safely?

In theory, water contamination and methane emissions could be prevented if best practice is followed at every stage and tight controls and monitoring are put in place to ensure this. However, it is certain that some (if not all) wells eventually leak. Fracking companies will be legally released from responsibility 5 years after shut-down. It is claimed that regulation is tighter in this country than in the USA, but this is scarcely credible when even conventional wells, also prone to leakage,

are not monitored for methane emissions after decommissioning. What is more, the Infrastructure Bill recently passed by Parliament shows government's intent to 'streamline' regulation and weaken individuals' control over their own land and property with regard to fracking.

4. Do we need it?

It has been claimed that we need fracked methane gas "to keep the lights on" as coal is phased out and renewable energy comes on stream. But if we allow for the inevitable escape of gas during production, transport and storage, there is no net saving in greenhouse gas emissions (CO₂ and methane) from burning fracked gas in power stations compared with using existing fossil fuels. For the benefit of the planet, as much as possible of remaining fossil fuels need to be left in the ground. In this view, the subsidy the government is giving to the oil and gas companies is a waste, much better spent on sustainability (renewables, updating the electricity grid, improvements to buildings, etc.), which is clearly the way forward and will more effectively support the local and national economy. Finally, if someone is not open about his intentions – as the fracking industry cannot claim to have been - and the government has redacted* 63 times its report on the likely effects of fracking on rural life – the truth 'kept under wraps' is likely to be an unpleasant one.

5. Should we oppose it?

Despite recent reports there is **no absolute ban** on fracking in National Parks or AONBs; it would therefore still be a major risk to allow a single fracking application to be successful elsewhere in Ryedale. Approval there could lead to an explosion of applications if the fracking companies know that commercially interesting deposits are present. The potential scale of activities is hard to grasp – based on US experience and recent research publications, several fracking drill rigs could be required on each square mile of exploited land in order to efficiently recover the available gas resource. Moreover, residents in the 'protected' areas would still be at risk of having their water supply polluted.

UK government may consider our area to be sparsely populated, but our population density is higher than in areas of the US, Canada and Australia where fracking has been permitted, and so many more people will be affected by nearby fracking, the distress it causes and its risks.

Please form your own judgement about this vital issue.



Present! ...



Future?... illustration shows a single well pad – there could be hundreds

Further reading: <http://www.ryedale.gov.uk/pages/council-information/news/1347-fracking.html>

Frack-Free Ryedale <http://frackfreeryedale.org/>

Frack-Free Lancashire <http://frackfreelancashire.org.uk/cms/>

* **Redact** – Remove or alter parts of a document in the editing stage in order to achieve a particular end. Commonly refers to removal (or inking out) of text in an original report, prior to public release.