

Coalbed Methane & Shale Gas Extraction – A new threat to Land and Water in B&NES

Soon the peak of fossil fuels will make it impossible to rely on foreign imports to meet our basic needs. We will again become increasingly dependent on our local resources. Land will become our most valued resource – as the medium in which to grow our materials. We should therefore be protecting green-belt land for future agricultural and forestry uses and not as inert material to be mined or built upon by industry.

CBM & Fracking will also impact on our already vulnerable water cycles. Increasingly rainwater is not percolating into the land because it hits impermeable surfaces, enters storm drains and heads out to sea. By-passing traditional routes of purification through rock layers and not replenishing our aquifers, That coupled with the growing consequences of climate change mean our land and water systems are suffering the extremes of drought and flood, leading to the compaction of soil and further impermeability.

Coalbed methane extraction first involves extracting water from coal seams in order to assess the economic viability of available gas. The removal of water from coal seams has been linked to depletion of ground water levels in overlying or underlying aquifers. We should be putting our efforts into maintaining water levels by improving the permeability and soil health of the land and absolutely by leaving groundwater in the ground and stopping our lands, aquifers and certain hot springs from drying out.

The waste water produced during the process should also be considered as toxic effluent and the treatment and disposal of waste water must be thoroughly detailed by any companies in possession of PEDL licences for the B&NES area. These plans should be scrutinized and regulated by any responsible authorities before (and after) any planning applications are granted.

Coal Seam water also contains an array of naturally occurring substances, most of which are extremely hazardous to human health. Contaminants include heavy metals such as arsenic, mercury, lead & cadmium which even in minute traces are very damaging to human development & health. In Australia, treatment before disposal often only involves removing the salts - leaving dozens of hydrocarbons, heavy metals and radionuclides still in the waste water. Often the water is merely diluted to reduce the salinity levels, mixing the produced water with fresh water before discharge. Dart Energy at Airth in the Scotland, the only place in Britain currently extracting CBM, have been 'treating' their water in-house before disposing of it directly into the Firth at Forth. The Environment Agency has not conducted a single test of the water in the 8 months of their production. What is to stop the same thing happening here, with disposal of water straight into the River Avon?

Each stage in the process of unconventional gas production — extraction, transport, processing, and combustion — generates a waste stream and carries multiple hazards for health and the environment. I ask the question who will be left to foot the bill of these waste streams if planning permissions for production are granted? Planning permission should never be granted before some form of bonds and sureties that the full "costs" of any environmental, social and economic impacts and their management will be met by the Gas producing companies. And in such a way that accommodates for the uncertainty and long-term timeframes of such potential impacts.

If we allow full scale unconventional gas extraction to go ahead we are risking the health of the soil, of the land, of the water and all that depend on it. The costs to us and our environment will far exceed any benefit by the way of jobs, a few extra years of fossil fuels or royalties paid to the government.

I would also like it noted that I feel unconventional gas extraction is unfavourable on the 'material' grounds of noise pollution for those who live and work nearby, traffic disturbance from additional heavy-load vehicles the production would create and the unsightly appearance of an industrial landscape that any wells and associated paraphernalia would create as they spread across our landscape.