

I am reiterating that:

An applicant for planning permission for fracking or shale gas operations (including test drilling and extraction) must demonstrate by appropriate evidence and assessment that reasonable scientific doubt can be excluded as to adverse impacts of the proposed development alone or in combination with other developments:

- On the quality and quantity of water resources, including groundwater and water courses
- On air quality (including through emissions of methane and sulphur)
- On seismic activity
- On local communities

And further that the precautionary principle should be observed of, (which was included in the 1992 *Rio Declaration on Environment and Development*) “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.

With this in mind I consider the following in regards to: '**Policy M17 (4) (i)** – justification on the 500m buffer around residential properties and other sensitive receptors '

This policy of buffer exclusion should include all dwellings, farmland and national parks as sensitive receptors and environmental features due to their pristine condition and human value beyond the economics of speculative unconventional gas extraction imposed on them from external and non-resident bodies. The effect of injected and escaped hydrocarbons from hydraulic fracturing operations is likely to have serious consequences on geological basins and has links to increased risks of local seismic activity as observed in 2010 in the UK. All of the waste water and injected chemicals are not going to be recovered (at least not fully) once in the ground and cannot be treated effectively. Aquifer sites should also be considered for extensive buffer zones on this note.

In regards to: **Policy M16 (b) (ii)** – 'further explanation on this policy and why drilling under a National Park/ANOB is considered to be major development. '

I am surprised that major industrial activity inside the boundaries of any AONB or National Park cannot be considered a major development, especially one linked to the feedback loop of damage linked to fossil fuel extraction and burning. This has a planetary effect and regardless of where the extracted shale gas is burned cannot be ignored and is not being mitigated by existing licensing applications. The Paris 2015 Climate Convention and its principles to limit global warming to 2 degrees are being blatantly disregarded by such activity in the first place. Any and all AONB and National Parks should enjoy the same protection from fossil fuel extraction and other industrial activity such as mining and quarrying as the existing Arctic sanctuaries enjoy in which Great Britain recognises internationally.