

[REDACTED]

From: Nigel Lee [REDACTED]
Sent: 12 January 2018 15:29
To: Planning Policy
Subject: RE: Consultation on the Nottinghamshire Minerals Local Plan ending soon
Attachments: 1801NFOE-NottsMineralsPlan.doc

Please find attached a response to the Issues & Options Consultation from Nottingham Friends of the Earth.

Nigel Lee
Nottingham Friends of the Earth

[REDACTED]

www.foe.co.uk/nottingham
www.facebook.com/groups/138538309515103

From: [REDACTED] **On Behalf Of** Planning Policy
Sent: 05 January 2018 10:37
To: Undisclosed recipients:
Subject: Consultation on the Nottinghamshire Minerals Local Plan ending soon

Dear Sir / Madam

Please note that the consultation on the Nottinghamshire Minerals Local Plan – Issues and Options consultation will end at midnight on the 14th January. If you have already responded please ignore this email.

The Issues and Options consultation document can be found at: <http://www.Nottinghamshire.gov.uk/minerals>

The online consultation system can be accessed at: <https://nottinghamshire.jdi-consult.net/localplan/index.php>

Regards

Planning Policy Team
Place Department
Nottinghamshire County Council

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Nottinghamshire Minerals Plan – Issues & Options Consultation Comments from Nottingham Friends of the Earth

These comments mainly relate to Q24: Are you aware of any issues relating to hydrocarbon extraction that should be considered through the Minerals Local Plan review?

- 1) There is a legal requirement for Plan policies to reduce climate emissions (Planning & Compulsory Purchase Act 2004, s19(1A)). The Plan period will extend beyond 2030 so should be compatible with statutory climate emissions reductions targets set for 2030, and with carbon budgets through the Plan period.
- 2) Fossil fuel extraction has been a major source of climate emissions through methane leakage, particularly over the last decade when high volume hydraulic fracturing has become established in the US and elsewhere. A NASA team recently calculated that fossil fuels have contributed about 12 to 19 teragrammes methane to the atmosphere each year since 2006, about half of the overall increase, the other half being due to biogenic sources. (John R Worden et al, Nature Communications 8, 2227, 20 December 2017. See: <https://earthobservatory.nasa.gov/IOTD/view.php?id=91564&src=ve>)
- 3) Plan policies should take a precautionary approach to climate emissions and should not approve any development which may cause leakage of methane in the short, medium or long term. In particular, any proposal which cannot reliably quantify and control methane leaks in the short, medium and long term should not be allowed. That should mean no new working of coal, oil or gas seams, given the impossibility with current technology of guaranteeing the integrity of well casings, etc. Conversely, the Plan should continue to support capping of disused coal mines to prevent methane leaking to atmosphere.
- 4) The Water Framework Directive requires a precautionary approach, particularly to protect groundwater from all contamination (http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm). Particular care will be required to protect Sherwood sandstone aquifers used for drinking water and agriculture, and particularly in the former coal mining areas which are already subject to minor earthquakes and minewater pollution. (The biggest risk of earthquakes is to damage well linings and allow leakage of toxic fluids and gases.)
- 5) For horizontal drilling proposals, definition of site boundary must include (in 3-D) the full extent of any horizontal drilling underground. (As required by Town & Country Planning Act 1990 s55(1) which defines “development” to include “... building, engineering, mining or other operations in, on, over or under land ...”)
- 6) As well as a risk of methane leakage, there is also a risk of venting carcinogenic gases such as benzene, toluene, ethylbenzene, xylene (BTEX) as well as radon which is radioactive, which may be a direct threat to public health. Diesel compressors which are necessary for high pressure hydraulic fracturing and vehicles also contribute to gasfield haze with particulates, nitrogen dioxide and ground-level ozone likely occupational hazards. Silica sand used in hydraulic fracturing may also be a major health hazard. A precautionary approach should

therefore be taken, particularly to any proposal which may involve hydraulic fracturing.

- 7) The planning authority has a responsibility to check that other regulators will be able to do their job. Planning Practice Guidance (Reference ID: 27-112-20140306) advises minerals planning authorities that “before granting planning permission they will need to be satisfied that these issues can or will be adequately addressed by taking the advice from the relevant regulatory body: ...
- Mitigation of seismic risks...
 - Well design and construction...
 - Well integrity during operation...
 - Operation of surface equipment on the well pad...
 - Mining waste...
 - Chemical content of hydraulic fracturing fluid...
 - Flaring or venting...
 - Final off-site disposal of water...
 - Well decommissioning/abandonment...”

(As an example, the Planning Inspector in rejecting an appeal by Egdon Resources against refusal of planning permission for a conventional oil well at Wressle by North Lincolnshire Council (APP/Y2003/W/17/3173530 & APP/Y2003/W/17/318060, 4 January 2018

<https://acp.planninginspectorate.gov.uk/ViewCase.aspx?Caseid=3173530&CoID=0>) found that the required ground condition report had not been prepared and this did not seem to have been addressed by the Environment Agency in their Environmental Permitting decision document (para 24).)

In some cases, planning conditions may need to be used to ensure these issues are adequately addressed, particularly to protect ground and surface water and to minimise the impact on the causes of climate change in the short, medium and long term.

- 8) Regulatory failures include a failure by the Environment Agency to stop Cuadrilla dumping fracking wastewater from Preese Hall containing radioactivity into the Manchester Ship Canal. And Michael Hill, an engineer involved in fracking at Preese Hall, states that “the only well to have been fracked in the U.K. suffered an integrity failure that the HSE were not aware of for up to THREE years, suffered damage to the casing due to unpredicted induced seismicity, caused by the fracking, which neither HSE nor the DECC were aware of for over 12 months, was never inspected once by the HSE for well integrity, which may or may not have leaked into the surrounding formations (we do not know because the EA have not checked) and which has now been abandoned.”

http://media.wix.com/ugd/b0aabf_5902a55b06fd4338a56db38dd8687240.pdf

- 9) A review of evidence on regulation by Watterson & Dinan of Stirling University (October 2016) concluded (<http://www.regulatingscotland.org/report/frackingandregulation.pdf>):
- the evidence base for robust regulation and good industry practice is currently absent. There are multiple serious challenges surrounding location, scale, monitoring and data deficits facing regulators overseeing onshore UGE and fracking in the UK;
 - the evidence from peer-reviewed papers suggests fracking in the UK will not

be effectively regulated. It is highly likely that regulatory agencies may lack the staffing and resources necessary to monitor and enforce effective regulation of the industry;

- US and UK peer-reviewed analyses and EU law identify both the precautionary principle and prevention as keys to dealing with fracking. This is underpinned by findings from the peer-reviewed public health literature that already identifies significant hazards and major potential risks from the industry.

- 10) UK government policy and guidance on high-volume hydraulic fracturing is based on out of date research, such as the Royal Society/Royal Academy of Engineering review (July 2012) and a report by Public Health England (although this was published in June 2014 it was not significantly changed from a 2013 draft which was based on evidence available upto 2012). This ignores more than 80% of the peer reviewed scientific literature on the environmental and health impacts of shale gas development which has been published since 2012: www.psehealthyenergy.org/our-work/shale-gas-research-library/ And only one out of 10 recommendations of the RS/RAE review had been implemented in full after 2 years: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60888-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60888-6/fulltext)
- 11) The most detailed research is probably that carried out by the State of New York's Department of Environmental Conservation which considered the available information on potential environmental impacts of high-volume hydraulic fracturing and possible mitigation measures and concluded (in June 2015): "In the end, there are no feasible or prudent alternatives that would adequately avoid or minimize adverse environmental impacts and that address the scientific uncertainties and risks to public health from this activity. The Department's chosen alternative to prohibit high-volume hydraulic fracturing is the best alternative based on the balance between protection of the environment and public health and economic and social considerations." (2015 SEQR Findings Statement, page 42: www.dec.ny.gov/energy/75370.html)
- 12) The most comprehensive review of peer reviewed studies on the impacts of fracking has been produced by the Concerned Health Professionals of New York. The fourth edition dated November 2016 (<http://concernedhealthny.org>) lists the following emerging trends:
 1. regulations are not capable of preventing harm
 2. fracking threatens drinking water
 3. emissions contribute to toxic air pollution and smog (ground-level ozone)
 4. public health problems, including occupational health and safety, are increasingly well documented
 5. natural gas is a bigger threat to the climate than previously believed
 6. earthquakes are a consequence in many locations
 7. fracking infrastructure poses serious potential exposure risks
 8. exposure to 'naturally occurring radioactive materials' is a risk for both workers and residents
 9. risks in California could be affecting food crops
 10. economic instabilities of fracking further exacerbate public health risks
 11. fracking raises issues of environmental justice
 12. health care professionals are increasingly calling for bans or moratoria until the full range of potential health hazards from fracking are understood

- 13) The scale and intensity of high volume hydraulic fracturing should require a separate policy to protect Nottinghamshire's people and environment from unconventional hydrocarbon development. Shale is not porous so the gas (and perhaps oil) that it contains does not flow to the well - to drain an extensive area it is necessary for fracturing to create artificial porosity. This has to be done across an area not at a single location requiring the construction of many originating well pads each of which is associated with a great deal of surface activity and infrastructure. During the time the Plan will be in force large parts of Notts could be turned into extensive gasfields – exploiting shale gas in Northern Notts and South Western Notts, and coal bed methane in Eastern Notts.
- 14) The potential scale of industrialisation of the countryside is indicated in a briefing by Ineos showing upto 420 wells in each 10km square licence area (30 wellpads with upto 14 horizontal wells from each wellpad: <http://frackfreeryedale.org/wp-content/uploads/2016/05/INEOS-online-ad-for-Seismic-Survey-Contractor-06.05.16.pdf>). This will require extensive roadways, pipelines, etc as well as the wellpads. While Ineos acknowledges that social and environmental constraints mean that the actual intensity of development will be less than this theoretical maximum, it is still anticipating perhaps 10 wellpads with 12 wells from each per 10km square – around 120 wells in total – which could result in over 1,000 wells just in Ineos' licenses around the Sherwood Forest area.
- 15) There are a number of issues currently being examined in North Yorkshire's Minerals Plan which Nottinghamshire may wish to consider in relation to high volume hydraulic fracturing. These include limits on well density, separation distance from sensitive receptors, and appropriate definition of hydraulic fracturing.