

**City of York Council, North York Moors National Park Authority and North Yorkshire
County Council Joint Minerals and Waste Plan (“the Joint Plan”)**

HEARING STATEMENT on behalf of FRIENDS OF THE EARTH

for examination to be held 27 February – 23 March 2018

in relation to Legal Issues and Hydrocarbons (27 February and 13 March 2018)

Appearances

- i. Matthew Dale-Harris, of counsel;
- ii. Magnus Gallie, Planner, Friends of the Earth.

Introduction

1. Friends of the Earth (“**FOE**”) has made written representations under Reg. 20¹ in relation to hydrocarbons. These fall to be addressed under Matter 1 under the Inspector’s questions (“**IQ**”) numbered 54-63. The same points also arise in relation to the legal matters numbered 11 and 12 and FOE will be attending on both days.
2. This Hearing Statement is structured as follows
 - (i) Legal and Policy Requirements
 - (ii) Responses to MIQs.
 - (iii) Appendix 1: text of FOE’s proposed amendments (revised)².
 - (iv) Appendix 2: extracts from Inspector’s report on Cumbria Minerals and Waste Local Plan.

¹ Town and Country Planning (Local Planning)(England) Regulations 2012/767

² The amendments proposed by FOE at the Reg 20 stage have been revised to focus on those which FOE considers are necessary to allow the Plan to meet the legal tests set out in the 2004 Act. FOE still contends that the other amendments proposed are desirable and calls on the joint authorities to adopt them.

(v) Appendix 3: Vale of Pickering Statement of Significance.

PART I: LEGAL AND POLICY REQUIREMENTS

(a) The climate change duty

3. Section 19(1A) of the Planning and Compulsory Purchase Act 2004 provides:

'Development plan documents must (taken as a whole) include policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change.'

4. The Climate Change Act 2008 imposes a duty on the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline: s.1(1).

5. Any person carrying out a function under Part II of the Planning and Compulsory Purchase Act 2004 in relation to local plans must act with the objective of achieving sustainable development; and must, for that purpose, have regard to national policies and guidance: s.39(2)-(3). One aspect of achieving sustainable development as set out in the NPPF is the objective to 'mitigate and adapt to climate change including moving to a low carbon economy'³; the NPPF encourages the development of 'proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.'⁴ When preparing local plans, the NPPF requires planning authorities to, inter alia:

*'set out environmental criteria, in line with the policies in this Framework, against which planning applications will be assessed so as to ensure that permitted operations do not have unacceptable adverse impacts on the natural and historic environment or human health...a planning authority must also take into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality.'*⁵

6. It has been recognised that, in the wake of the 2008 Act, climate change is an issue that falls to be considered in a much broader and more holistic manner. In *R (Hillingdon LBC) v Secretary of State for Transport* [2010] EWHC 626 (Admin), Carnwath LJ (as he then was) clarified that the 2008 Act put beyond doubt the issue

³ §7

⁴ §94

⁵ §143

of whether climate change could be considered in the context of determination of planning applications: [54]-[63].⁶

(b) The precautionary principle

7. The precautionary principle is a key principle of environmental law. It provides, in short, that the burden of demonstrating that the threats of environmental damage resulting from some action are not made out falls on those seeking to justify the action.
8. The Rio Declaration on Environment and Development⁷ encapsulates the principle as follows:

'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. 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.'

9. The precautionary principle is at the heart of EU environmental law. Art. 191(2) of the Treaty on the Functioning of the European Union declares that EU policy on the environment 'shall be based on the precautionary principle'.
10. The precautionary principle is also reflected in national policy. In *Securing the Future – UK Government Sustainable Development Strategy*⁸, the Government pledged to ensure that 'policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle)'. The substance of the principle is reflected in much national policy on the environment.

(c) Legal obligations under s.4A of the Petroleum Act 1998 ("the 1998 Act")

⁶ Carnwath LJ distinguished the earlier authorities of *Barbone v Secretary of State for Transport* [2009] EWHC 463 (Admin) and *Bushell v Secretary of State for the Environment* [1981] AC 75, which had suggested that certain matters of 'high policy' relevant to the determination of a planning application might fall outwith the permitted scope of what may be considered at a planning inquiry.

⁷ To which the UK has been a party since 1992.

⁸ Cm 6467, March 2005: pp. 16, 99, 101.

11. Section 4A of the 1998 Act sets out a series of safeguards for developments involving onshore hydraulic fracturing, some of which are wholly or partially the responsibility of local planning authorities. These include ensuring:

- (i) that the environmental impact of the development be taken into account;
- (ii) that associated hydraulic fracturing will not take place within protected groundwater source areas or other protected areas⁹;
- (iii) that the cumulative effects of the development are taken into account
- (iv) that a restoration condition is considered;
- (v) that relevant undertakers are consulted;
- (vi) that public notice is given.

RESPONSE TO MIQS

LEGAL ISSUES

11. Is the Plan as a whole in compliance with Section 19(1A) of the Planning and Compulsory Purchase Act 2004 (as amended), which requires development plan documents to include policies designed to secure that the development and use of land in a local planning authority's area contribute to the mitigation of, and adaptation to, climate change?

12. No. FOE contends that the Plan as a whole does not comply with s.19(1) of the 2004 Act because the policies relating to hydrocarbons do not require consideration of climate change impacts as part of the development consent process. This also gives rise to unsoundness due to non-compliance with NPPF §94.

13. This is discussed further under FOE's response to Matter 1, Question 57 below.

14. FOE has proposed an amendment to Policy M17(2) to remedy this issue.

MATTER 1 (Hydrocarbons)

54. Briefly explain how the section of the Plan that deals with hydrocarbons is consistent with national policy.

⁹ Defined in the Onshore Hydraulic Fracturing (Protected Areas) Regulations 2016 as including areas of land at less than 1,200m beneath the surface of national parks, AONBs; world heritage sites.

15. No submissions on this issue.

55. Does the Plan set out a clear and readily understandable policy structure for hydrocarbons?

16. FOE agrees that the Plan sets out a clear and readily understandable policy for hydrocarbons. However, it is concerned that the proposals for matrix acidisation may avoid detailed controls.

17. Matrix acidisation is a form of stimulation which is used to treat higher permeability geological formations. The process involves injecting dilute acid into the geological formation at a pressure that is above the geological formation pressure but below the formation fracturing pressure.

18. As with fracturing, the fluid injected in matrix acidising is a mixture of chemicals diluted in water. In matrix acidising the chemicals represent between 6% and 18% of the total treatment liquid¹⁰. Acid is the main chemical in this mixture. The acid used depends on the rock formation targeted. In addition to hydrochloric acid and hydrofluoric acid, organic acids such as acetic acid and formic acid are also used. Several chemical additives with different functions are also added to the mixture. These range from “corrosion inhibitors” to prevent the acids corroding the tubing inside wells, to “biocides” which kill bacteria that can damage wells¹¹.

19. These chemicals have the potential to cause direct and indirect impacts on the environment and human health if accidentally released in the air, soil or water at different stages of the process. For example, there can be spills and leaks at the surface or escaping fluids and gases underground¹². Among the 200 chemicals used

¹⁰ Abdullah et al., 2017. Toxicity of acidization fluids used in California oil exploration. *Toxicological & Environmental Chemistry*, 99(1), 78-94. <http://dx.doi.org/10.1080/02772248.2016.1160285>

¹¹ The most commonly used chemical additives in acid jobs in the US (see Abdullah et al) are:

Breakers: reduce the viscosity of a fluid

Cross-linkers: maintain fluid viscosity as temperature increases

Clay control agents prevent clay from swelling or shifting

Iron control agents; prevent the precipitation of metal oxides

Scale control agents; prevent scale deposits in a pipe

Corrosion inhibitors: slow down the corrosion rate of a material

Biocides: to kill bacteria that can corrode well casings

¹² <http://www.bbc.co.uk/news/science-environment-39032748>

for acid treatment that have been identified in California, studies found that 28 of them are potentially hazardous for human health¹³. Others could harm aquatic environments and wildlife. For some chemicals, such as hydrofluoric acid, xylene⁵¹⁴ (a highly toxic Volatile Organic Compound), diethylene glycol, and ethyl benzene, an average of between 100 and 1500kg per well is used¹⁵.

20. Most of the concerns related to fracturing also apply in relation to matrix acidising¹⁶. These include risks of water, air and soil contamination by the chemicals used and risks for human health. There are also the same issues regarding the industrialisation of rural areas resulting in increased heavy goods traffic and noise. As with hydraulic fracturing there are also concerns about how the waste fluids coming from matrix acidising sites are monitored and dealt with. Two issues of particular concern are the high concentration of chemicals used (from 10 to almost 40 times higher in matrix acidising than in hydraulic fracturing) and the potential use of highly hazardous hydrofluoric acid.
21. Given these risks, it is submitted that matrix acidisation should be subject to the same planning controls as hydraulic fracturing. FOE has proposed an amendment to M16(a) to give effect to this.

56. Taking account of the Written Ministerial Statement of 16 September 2015, does the hydrocarbon section of the Plan provide the right balance between supporting appropriate hydrocarbon development (taking account of economic and social benefits)

¹³ See Abdullah (cited above) and Stringfellow, W. T. et al., 2017. Identifying chemicals of concern in hydraulic fracturing fluids used for oil production. *Environmental Pollution*, 220, 413-420.

[dx.doi.org/10.1016/j.envpol.2016.09.082](https://doi.org/10.1016/j.envpol.2016.09.082)

The chemicals used include:

Carcinogens: substances which cause cancer

Neurotoxins: substances which are poisonous or destructive to nerve tissue

Mutagens: substances which cause changes to genetic material

Reproductive toxins: substances which alter sexual function and fertility

Developmental toxins: substances which affect body regulation, growth, development and behaviour

Endocrine disruptors: substances which interfere with the hormone system

¹⁴ Zoveidavianpoor, M. et al., 2012. Health, safety, and environmental challenges of xylene in upstream petroleum industry. *Energy & Environment*, 23(8), 1339-1352. [dx.doi.org/10.1260/0958-305X.23.8.1339](https://doi.org/10.1260/0958-305X.23.8.1339)

Abdullah et al., 2017. Toxicity of acidization fluids used in California oil exploration. *Toxicological & Environmental Chemistry*, 99(1), 78-94. [dx.doi.org/10.1080/02772248.2016.1160285](https://doi.org/10.1080/02772248.2016.1160285)

¹⁶ Shonkoff et al, 2015, Scientific Assessment of Hydraulic Fracturing in California: Ch 6, Potential impacts of well stimulation on human health in California, CCST ccst.us/projects/hydraulic_fracturing_public/SB4.php

and protecting the environment and sensitive receptors from its potential impacts?

22. FOE is concerned that Policy M16 does not sufficiently protect the sensitive and protected environments of the Vale of Pickering and the Yorkshire Wolds Special Landscape Areas.
23. Both of these areas are recognised as areas of special landscape character are protected by policy SP13 of the Ryedale Local Plan Strategy 2013 which recognises their local value in both landscape and heritage terms. The Vale of Pickering has also been recognised as a character area of particular significance by English Heritage which published “The Vale of Pickering – Statement of Significance” (Appendix 3). Page 13 of that statement summarises the significance of this area.
24. FOE submits that the decision to exclude these areas from the areas protected by Policy M16 is unsound. This problem could be remedied by the inclusion of those two areas within the list of areas protected under M16(b)(i).

[Dec 2016 written representations: §§21-22]

57. Should there be specific policy provision within the hydrocarbon section of the Plan covering the potential impact on climate change? Are the policies consistent with NPPF paragraph 94 requiring local planning authorities to adopt proactive strategies to mitigate and adapt to climate change?

25. Yes. In their current form the policies M16-18 do not currently comply with s.19(1A) of the 2004 Act and are not justified. There should be a specific provision within the hydrocarbon policies which requires applications to address the impact of the proposed development on climate change.
26. This is necessary because, as outlined above, §94 of the NPPF requires local authorities to take ‘proactive steps’ to mitigate the effects of climate change. Section 19(1A) raises this to a statutory duty by requiring that the plan as a whole contain policies addressing the mitigation of climate change.
27. Hydrocarbons are primary drivers of climate change and their extraction has a highly significant impact on local, national and international attempts to mitigate climate change. As detailed in FOE’s Reg 20 representations, the Climate Change Committee

has identified that shale gas exploitation will only be compatible with the Climate Change Act 2008 binding targets for carbon reduction if overall gas consumption remains in line with carbon budgets with production replacing imports rather than increasing consumption.¹⁷

28. In this context, it is insufficient for the Plan to require consideration of climate change only in the context of specific design issues (i.e. via policy D11¹⁸) – the Plan must also require climate change to be assessed as part of the principle of development for hydrocarbons.

29. This was the basis on which the Inspector appointed to examine the Cumbria Minerals and Waste Plan found that the energy mineral policy in that case was unjustified absent a specific reference to climate change as a relevant consideration (Appendix 2).

30. FOE suggests this can most appropriately be achieved by way of an amendment to Policy M7(2).

31. The proposed wording has the benefit of making it clear that climate change impacts will need to be considered cumulatively with other hydrocarbon developments.

[Sept 2017 reps: §§1-10, Dec 2016 reps §§1-11]

58. Should there be a distinction in Policy between conventional and unconventional hydrocarbon extraction?

32. No submissions on this issue.

59. Should there be more flexibility in dealing with potential exploration, appraisal and production of unconventional hydrocarbons in the North York Moors National Park, particularly as some Petroleum Exploration and Development Licenses (PEDL) lie within the National Park?

33. FOE dispute that more flexibility is required in dealing with unconventional hydrocarbons in the National Park – which is a protected area under the Onshore

¹⁷ Onshore Petroleum: the compatibility of UK onshore petroleum with meeting the UK's carbon budgets: <https://www.theccc.org.uk/publication/onshore-petroleum-the-compatibility-of-uk-onshore-petroleum-with-meeting-carbon-budgets/>

¹⁸ See the joint authorities' responses to consultation on the publication draft.

Hydraulic Fracturing (Protected Areas) Regulations 2016. This is particularly the case in relation to applications involving hydraulic fracturing.

34. In fact, additional safeguards are needed in order to make the Plan sound. In particular FOE consider that it is necessary to amend M17(2)(i) so as to indicate that the authorities will (i) assess environmental impacts by reference to the precautionary principle (see section above) and (ii) normally expect development involving the construction or operation of a well to constitute EIA development.

[Sept 2017 reps: §§19-22; Dec 2016 reps: §44-52]

60. With respect to Policy M16 (Key spatial principles for hydrocarbon development) briefly explain the reasons for choosing a distance of 3.5km for the AONB/National Park buffer zone in part d) of the policy and how this is intended to work in practice. Is this the most appropriate distance for such a buffer?

35. No submissions on this issue.

61. With respect to Policy M17 (Other spatial and locational criteria applying to hydrocarbon development) part 4) and paragraph 5.146 does the 500m buffer around residential and other sensitive receptors strike the right balance between development and protection? Should there be more flexibility in separation distances and should this be dealt with on a site by site basis (PPG 27-018-20140306)?

36. FOE submit that an indicative buffer zone is appropriate in relation to all hydrocarbon proposals and particularly in relation to hydraulic fracturing proposals due to the significant risk of disturbance to residential and other sensitive receptors. They consider that the proposed wording is adequate and allows sufficient flexibility by providing a steer rather than a strict separation distance. However, they consider that – in the light of the wider evidence before the EiP as to the level of disturbance which proposals like these can cause – a greater indicative distance should be adopted. On this basis they propose an amendment to M17(4)(i) to indicate that 750m is the distance within which unacceptable impacts are likely to occur.

[Sept 2017 reps §§17-18; Dec 2016 reps §§23-31]

62. Is the possible requirement of a financial guarantee in Policy M18 (Other specific criteria applying to hydrocarbon development) part 2) iii) for unconventional hydrocarbon development justified due to its novel approach or techniques? (PPG 27-048-20140306)

37. The unconventional hydrocarbon industry is still in a state of development and the techniques which it uses are not yet well-established. This is reflected by the concerns contained in the emerging evidence base around techniques such as matrix acidisation (above) but is also reflected by the absence of any complete Best Available Techniques Reference document at European level.

63. Has sufficient consideration been given to the potential impact on the strategic road network from hydrocarbon development and are there any outstanding concerns from Highways England or the Highways Authority?

38. No submissions on this issue