

Additional Comments on Action Point 8: Comments on Interactive Map (500m)

on behalf of Friends of the Earth England, Wales and Northern Ireland

North Yorkshire Minerals and Waste Joint Local Plan (Reopening of Examination in Public)

Unconventional Oil and Gas

(Following Hearings on 24th and 25th January 2019)

1. Following the close of hearing sessions for the North Yorkshire Minerals and Waste Joint Plan Examination (EIP) for a second time, we wish to respond to **Action Point 8 – “Comments on Interactive Map”**.
2. Friends of the Earth continue to express support for the 500m set-back zone within draft policy M17, as per our previous consultation responses and hearing session comments. To use the language of WMS HCWS690 on Energy Policy¹ (i.e. national policy context to which the re-opened EIP hearings were framed), our view is the joint councils have demonstrated *“proper justification”* in their approach to the 500m set-back, despite evidence from UKOOG suggesting a sterilising effect (re “interactive” map). We set out below why the 500m set-back to draft policy M17 remains *justified*, and is *“the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence”* (para 182 NPPF – 2012).

A) Map fails to take account the possibility of directional drilling

3. As raised by several ‘interested parties’ at the hearing sessions, the map shows surface constraint impacts of a 500m residential set-back distance, assuming a vertical drilling method. It however fails to factor in the ability of UKOOG’s operators to utilise directional drilling - the definition of which is cited in Planning Practice Guidance:

*“Directional drilling - non-vertical wells which begin with slanted but straight holes often used for mineral exploration and to avoid surface obstacles. Wells may also begin vertically but progressively build angle to intercept the hydrocarbon reservoir in a longer section than can be achieved by vertical drilling. **Such non-vertical wells can be deployed radially from a single well pad.**” [our emphasis]*

(Paragraph: 221 Reference ID: 27-221-20140306)

¹ <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2018-05-17/HCWS690>

4. Indeed, NPPG also goes on to state the benefits of this drilling technique:

*“There is normally no need to create mineral safeguarding areas specifically for extraction of hydrocarbons given the depth of the resource, **the ability to utilise directional drilling and the small surface area requirements of well pads.**” [our emphasis]*

(Paragraph: 108 Reference ID: 27-108-20140306)

5. As a result, the 25-30% remaining surface land area UKOOG suggest would be left for surface-drilling – notwithstanding other planning/ statutory constraints – could still enable them to actively reach the underlying shale resource.

6. For the avoidance of any doubt as to whether directional drilling is viable at the exploratory stage, the benefits of directional drilling given in NPPG (see above) apply to the “extraction of hydrocarbons” – covering both unconventional or conventional extraction. We note that the government has also published: ‘Onshore oil and gas exploration in the UK: regulation and best practice’² (2015). Here, various references are made to the historic use of the directional drilling methodology, as well as the distances that can be achieved. Page 8 states:

*“The UK has experience of hydraulic fracturing and directional drilling for non-shale gas applications... **Advances in directional drilling (involving record-breaking offsets up to 11km)** have enabled the development of the Wytch Farm field onshore and offshore Dorset”.*
[our emphasis]

7. Despite the above, UKOOG suggested at the hearings that the exploratory phase for hydraulic fracturing almost always requires vertical drilling – i.e. drilling straight down. This would seem to render such benefits of directional drilling in overcoming the 500m issue as irrelevant. Our view, however, is that the UKOOG counsel “understanding” of exploratory drilling may be being heavily influenced by exploratory drilling techniques of INEOS (i.e. Mr Steele’s former clients). We are aware (having also attended) that Mr Steele represented INEOS at two public inquiries for exploratory ‘non-fracking drilling’ appeals in 2018: i) Harthill³ (Rotherham) and ii) Bramley Moor Lane⁴ (Derbyshire). Both these exploratory proposals⁵ included the drilling of “vertical hydrocarbon exploratory core wells”. Note the use of “vertical” in the description.

8. While this clearly INEOS’ current exploratory drilling approach, one cannot assume that *all* exploratory drilling for eventual hydraulic fracturing will utilise this same methodology. Indeed,

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/503067/Onshore_UK_oil_and_gas_exploration_England_Dec15.pdf

³ <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?Caseid=3190843&CoID=0>

⁴ <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=3190838>

⁵ Phase 1 exploration for longer-term extraction of shale gas

research into the exploratory phases for other UK sites suggests that **alternative** exploratory drilling techniques do exist, with directional drilling methods specifically being incorporated. These include the following:

i) Preston New Road, Lancashire (Cuadrilla)

9. The Secretary of State's decision letter⁶ from 2016 for exploratory drilling at Preston New Road (PNR), Lancashire covers several appeals originally lodged for that site (i.e. A, B, C & D). **Appeal A**⁷ covers the exploratory drilling and fracking phase, detailing *explicit reference* to the operator's intention to use directional drilling:

*"The precise depth and position of the shafts would be determined based upon evolving geological understanding as the scheme progressed. **These shafts would be directionally drilled and could potentially extend underground within the limits shown on the location plans [CD 12.5]."** (Para 1.121 – 2016)*

10. While this detail from the SoS's decision letter differs from oral evidence provided by Cuadrilla's own representative at the January hearing session⁸, the planning application documentation upon which the SoS allowed the appeal also refers to directional drilling (see pages 31 and 34 of Planning Statement⁹). We also note that the description of the scheme in the current permission¹⁰ does not mention vertical drilling compared to INEOS, simply "*drilling of up to four exploration wells*" – indeed providing scope for to utilise the directional technique.

11. Finally, we would draw the Inspector's attention to the site location plan for the PNR site, which also includes a red line showing sub-surface areas of search. This demonstrates that by using directional drilling the operators could indeed access a much larger sub-surface area, beneath adjacent residential properties that we would otherwise be led to believe surface buffers would restrict exploration in North Yorkshire. Such benefits evident in this application indeed align with those ascribed to directional drilling in NPPG and other government documentation¹¹ referred to above. **Appendix A** includes a screenshot of the PNR site location plan.

⁶ <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?Caseid=3130923&CoID=0> (click on "16-10-06 Final DL Cuadrilla ABCD.pdf" – in the "Decision and Outcome" section)

⁷ Appeal A – "Construction and operation of a site for drilling up to four exploratory wells, hydraulic fracturing of the wells, testing for hydrocarbons, abandonment of the wells and restoration, including provision of an access road and access onto the highway, security fencing, lighting and other uses ancillary to the exploration activities, including the construction of a pipeline and a connection to the gas grid network and associated infrastructure, in accordance with application ref LCC/2014/0096, dated 5 June 2014"

⁸ Where reference to vertical drilling first approach

⁹ <http://planningregister.lancashire.gov.uk/PlanAppDisp.aspx?recno=6586>

¹⁰ Ref: LCC/2014/0096

¹¹ See footnote 2 above

ii) Mission, Springs Road (I-Gas)

12. Following submission an application for exploratory drilling at Mission, Springs Road (ref: ES/3379) the planning officer's committee report stated at para 29:

"...a second well would be drilled first vertically before being directed horizontally in a southerly direction."

13. The findings of this application once again suggests deviation from INEOS' proposed vertical only dry core drilling methodology.

14. Overall, the map provided by UKOOG fails to accurately represent the potential available sub-surface shale gas resource when non-vertical only drilling methods are used – as is evident at the PNR and Mission sites above. Our understanding, based on case studies from the UK, is that these alternative exploratory drilling methodologies would enable exploration of any sub-surface shale resource beneath the same residential and community uses¹² that the 500m set-back zone would protect at the surface. As such, the envisaged 500m surface set-back (draft policy M17) would not have the sterilising effect of the shale resource UKOOG would otherwise have us believe – and as such the policy is compliant with WMS HCWS690 (2018).

B) Assumption of surface drilling in the National Park.

15. We note from the "interactive" map that PEDLs 77, 258, 285, 284, and 343 all include parts of the North York Moors National Park – an area where "great weight" should be given to conserving its landscape and scenic beauty. As a "protected area"¹³ and assuming the prohibition in part (b) of draft policy M16 (and the local definition of fracking) are adopted, we assume any proposals for exploratory unconventional drilling involving hydraulic fracturing would be banned at the surface across this sensitive designation¹⁴. Even if INEOS's vertical dry core drilling technique were proposed to explore the available resource, hydraulic fracturing would have to take place *outside* the park, surely rendering such exploration largely futile. We are therefore unclear in terms of the purpose to the map including the 500m set-back (and proposed sterilising effect) across the N.Park, as it simply cannot be fracked from its surface anyway.

16. Indeed, by including the 500m buffer across this "protected area" on the map, UKOOG have added weight to our arguments. With *draft* policies M16, M17, D04 (and the local non-volume-based definition of fracking) and legislative prohibitions in place, surely only exploratory drilling

¹² Assuming beyond a 1000m statutory depth (or 1200m below "protected areas").

¹³ See Annex A – Para 3.1 – [Government Response - Surface Development Restrictions for Hydraulic Fracturing](#)

¹⁴ Note part b applies to: Exploration, appraisal and production of conventional hydrocarbons, involving hydraulic fracturing; **and** Exploration for unconventional hydrocarbons, involving hydraulic fracturing;

from *outside* the Park would allow UKOOG's members to shale reserves. How else, apart from the use of directional/lateral drilling - including at the exploratory phase - will the identification, fracturing and extraction of shale gas take place from beneath the Park when such activity is banned at its surface.¹⁵

17. We trust our comments demonstrate how the map (and the assumptions made in its design) is wholly unsuited and fails to represent the complex range of issues discussed in detail at the EiP hearing sessions over the past year. The maps findings are flawed and should not be allowed to undermine the very logical and reasoned justification for the draft policies (re the 500m surface set-back). It cannot and does not show the flexible nature of the policy nor the ability to drill/frack underneath such buffers.

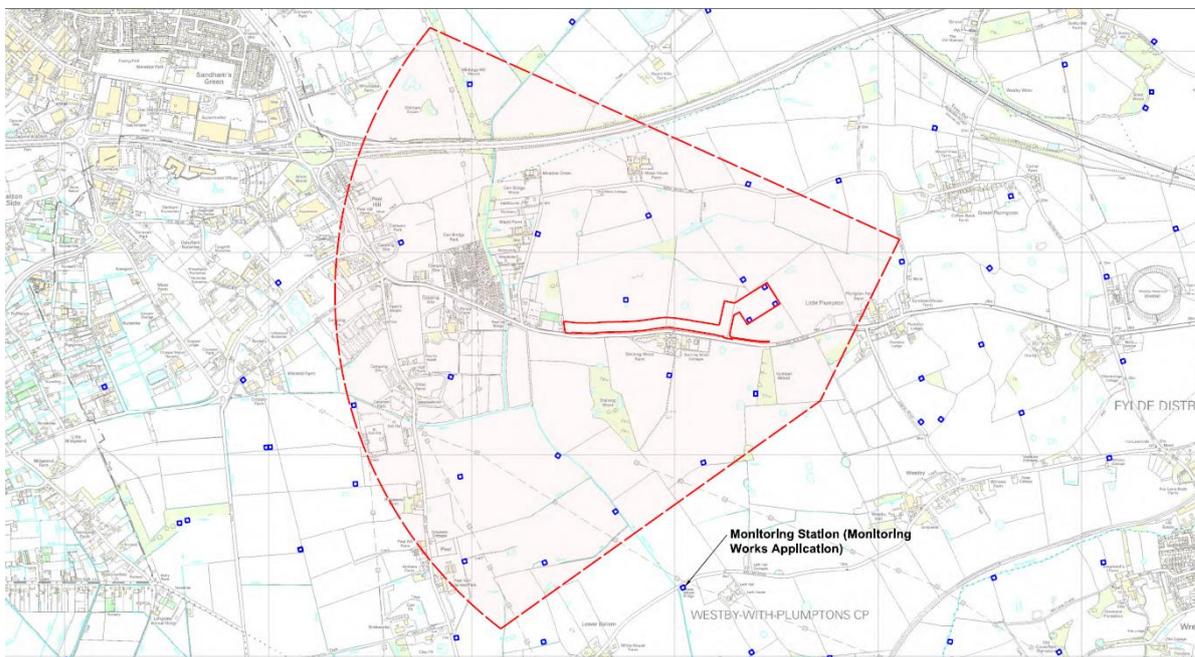
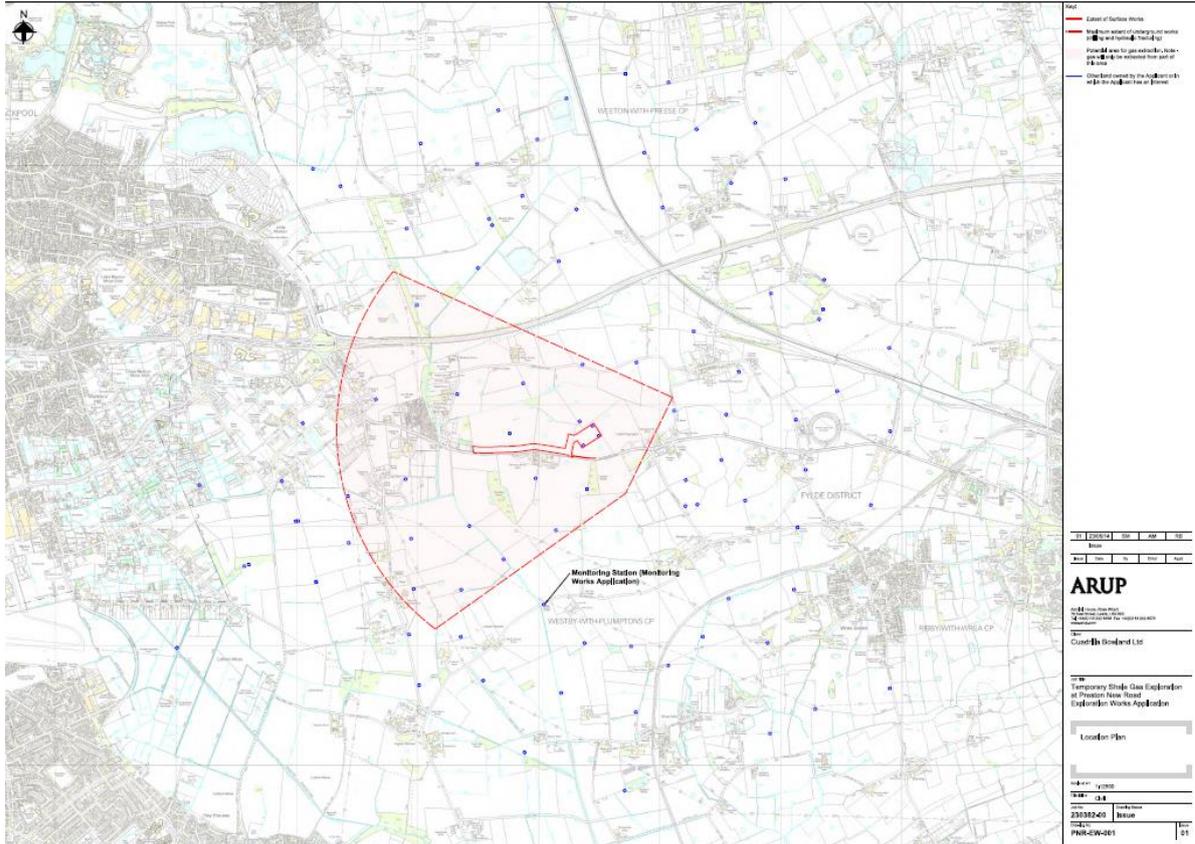
18. Finally, we note the findings and recommendations of the Housing, Communities and Local Government Select Committee following their Inquiry into Fracking Guidance last year. The committee fully endorsed the plan's approach to the 500m element and its local definition, suggesting it serve as a template for other mineral plans around the country. This represents high praise to the joint council's approach, while supporting the view that local communities should be afforded additional local plan protections from the "known unknown" land-use impacts this intensive, speculative, disruptive, 24-hour, long-term unconventional fossil fuel extraction process would have.

19. We expect the consultation on the joint council's main modifications as soon as possible, so the Inspector can finalise her report on the plan's soundness and the plan adopted in due course.

Magnus Gallie MRTPI - Friends of the Earth England, Wales and Northern Ireland

¹⁵ See Annex A – Para 3.1 – [Government Response - Surface Development Restrictions for Hydraulic Fracturing](#)

Appendix A: Preston New Road –Drilling redline - Site Location Plan (LCC/2014/0096)



- Key:**
- Extent of Surface Works
 - - - Maximum extent of underground works (drilling and hydraulic fracturing)
 - Potential area for gas extraction. Note - gas will only be extracted from part of this area
 - Other land owned by the Applicant or In which the Applicant has an Interest

(As taken from: <http://planningregister.lancashire.gov.uk/PlanAppDisp.aspx?recno=6586>)