

Publication stage Response form - Part B
Please use a separate Part B form for each representation

Name or Organisation :		Ryedale Liberals 7.2 Appendix 7	
<i>Please mark with an x as appropriate</i>			
• To which part of the Minerals and Waste Joint Plan does this representation relate?			
Paragraph No./ Site Allocation Reference No.	Policy No. M17 2 i) ii) para 5.149 3846/0968/M17/LC.U.DTC	Policies Map	
2. Do you consider the Minerals and Waste Joint Plan is :			
2.(1) Legally compliant	Yes		
2.(2) Sound		No	
(2a) Which Element of soundness does your representation relate to? (please only mark with an x one element of soundness per response form).			
<i>Positively Prepared</i>	No	<i>Justified</i>	Yes
<i>Effective</i>	No	<i>Consistent with National Policy</i>	No
2 (3) Complies with the Duty to co-operate	Yes		

3. Please give details below of why you consider the Minerals and Waste Joint Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate. Please be as precise as possible. If you wish to support the legal compliance or soundness of the Local Plan or its compliance with the duty to co-operate, please also use this box to set out your comments.

We do not wish to have our concerns noted, we want our logical and scientific reasoning to be considered and responded to. It is impossible to have a degree of flexibility in measuring a baseline. That is probably why it's called a baseline. It is a fixed point from which changes are measured. The whole point of ascertaining an accurate baseline is to enable the MWJP to measure the range of uncertainties to which you allude.

M17 2 i) and ii)
 We support the attempt to tackle the difficult problem of cumulative effect that is so central to dealing with applications for Hydrocarbon development. Any location would give rise to cumulative effect, since that effect is to do with its relationship with other sites. There are no criteria given except 'unacceptable' which is a subjective term.
 There is a problem in dealing with the wholesale development of the gas field without information as to what that might look like if the flow of gas was as hoped for by the applicants. ii) Mentions this, but needs to insist on this information being made available.

The problem hinges on the existence of no evidence from the UK hydraulic fracturing industry experience. Furthermore, evidence of harm cannot be detected or assessed unless adequate baseline monitoring and audits of health and environment are scrupulously prepared prior to activities, and repeated periodically. There is currently no hard evidence that this process can be carried out safely, or that evidence would be used.

Baseline evidence is crucial, to enable everyone to assess and agree rational 'cumulative effect' limits; to justify setback distances and safe levels of well pad density. It is also crucial in proving harm or no harm if there are disputed health problems, or land or water contamination problems further along the line, maybe many years into the future. Adequate baseline evidence will be necessary to make sure that the risk of harm does not entirely lie with the local environment and population whilst the benefits accrue to the developers. Without sufficient baseline evidence, no system of financial bond/ insurance will work. Without adequate baseline evidence it will be impossible to ascertain dangerous rates of change, which may enable us to prevent serious contamination from happening.

Please see notes below from Professor Andrew R.G.Price, Emeritus Professor in the School of Life Sciences at Warwick university and Honorary Professor at the Environment Department University of York, as to the level of baseline monitoring needed and its importance

EIA versus assurances from fracking company

An EIA predicts expected environmental, health and other consequences of a project, such as fracking. Environmental data include chemical (e.g. contaminants, concentrations of which are likely to *increase* as a result of fracking, and biological data (e.g. species diversity and abundances, which are likely to *decrease* as a result of fracking).

An integral part of the EIA process is environmental monitoring before fracking begins ('baseline' data), during fracking and, ideally, after fracking stops. Only then is it possible to determine the extent to which predicted impacts match reality - as determined from monitoring actual impacts (e.g. various potential contaminants in the water, soil and air).

Environmental monitoring data

This is part of the EIA process. Having adequate baseline environmental information on contaminant concentrations (and biological & health parameters) is critical. Without it, gauging the significance of future measurements, once fracking has begun, will be difficult or impossible. Important considerations are:

i) the location and number of sampling sites – which should extend beyond the zone of fracking operations, to serve as comparative 'reference' sites (in a similar way as baseline data collected in fracking areas before fracking begins);

ii) the parameters sampled/monitored (e.g. contaminants added to water for fracking, other likely contaminants, e.g. from underground, air quality measurements, human health monitoring); contaminants should include but not be limited to various petroleum hydrocarbons and other organic compounds (e.g. benzene, toluene), dissolved solids, heavy metals and radionuclides. The list in the plan should include all contaminants likely to occur from fracking, based on the literature and experiences elsewhere).

iii) sampling frequency – as a general principle the more variable the measurements (e.g. contaminant concentrations from one month to another), the more frequently the samples

should be taken. Similarly, frequent sampling is needed for parameters that may be a problem only infrequently – e.g. pulses of poor air quality. Here, permanent air monitors would be desirable.

Why sufficient environmental data matters

If monitoring does not reveal an environmental problem, this could be because there isn't one. Alternately, there could be problem (e.g. rising contaminant levels), but the sampling regime was **insufficiently robust** (i.e. it lacked sufficient 'statistical power') to detect it. This often happens from having insufficient monitoring sites and sampling undertaken too infrequently. Hence, '*absence of evidence is not necessarily evidence of absence*'.

Threshold of potential concern and limits of acceptable change

This information is needed for each potential contaminant, and should be stated in the plan (or obtained from the literature) – before fracking starts. It is needed to determine whether or not exploratory drilling or fracking leads to unacceptable concentrations of a particular contaminant. Without adequate baseline information, it is difficult or impossible to determine whether transgressions have occurred.

If concentrations of contaminants do exceed acceptable limits, in the course of fracking, the plan should state what ameliorative or mitigation measures will be undertaken. (Importantly also, if concentrations continue to result in transgressions, what action would be taken against the fracking company?).

Health

To detect positive or negative impacts of fracking on health and well-being there must be a baseline determined, both in the locality and at a wider area to give statistical significance. This should be then monitored regularly. To identify the likely or possible impacts there must be a wholly independent Health Impact Assessment. Environmental measurement must be undertaken to allow cause and effect to be considered.

(continue on a separate sheet/expand box if necessary)

4. Please set out what modification(s) you consider necessary to make the Minerals and Waste Joint Plan legally compliant or sound, having regard to the Matter you have identified at 3. above where this relates to soundness. (NB Please note that any non-compliance with the duty to cooperate is incapable of modification at examination). You will need to say why this modification will make the Minerals and Waste Joint Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

To establish any benefits or impacts from hydraulic fracturing, there needs to be wide assessment of both environmental and health data and ongoing monitoring.

(continue on a separate sheet/expand box if necessary)

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation and the suggested modification, as there will not normally be a subsequent opportunity to make further representations based on the original representation at publication stage. **After this stage further submissions will be only at the request of the Inspector, based on matters and issues he/she identifies for examination.**

5. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination?

Yes, I wish to participate at the oral examination

6. If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

As the response does not answer our point we feel there needs to be discussion at the EiP.
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***Please note** the Inspector will determine the most appropriate procedure to adopt to hear those who have indicated that they wish to participate at the oral part of the examination.*

All responses received will be considered and any information provided will be made public. My consent is hereby confirmed.

Signature: John Clark	Date: 11 Feb 2018
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Hard copy to follow for signature and to ensure yes/no in the correct place.