NOTE ON FRACKING - some questions and issues.

To begin with, the concept of fracking nearby did not give me any concern. However, I then went to an open anti-fracking presentation in the Milton Rooms, and what the meeting was told did concern me. I attach a copy of the literature which was distributed at this meeting.

I was also interested to hear the other side of the argument. So I attended two closed meetings organised by Ryedale District Council. The first was a presentation by County Planning to Parish Council representatives, and the second was a presentation by DECC to members of Ryedale District Council. Whilst I can see the reason for excluding the public from these meetings, I cannot see why the Press were excluded. At these meetings I had the material from Frack-free Ryedale (attached) and asked a number of questions based on this literature. I have to say that most (if not all) of the issues I raised have been fairly prominent in the national press. So I was surprised that in both cases most of the answers to the questions from people who clearly know far more about the subject than any of the parish representatives us were “we don’t know”, or “it depends on the planning permission.” As regards “it depends on the planning permission” this means “yes it could”. So these meetings have served to confirm rather than to alleviate my concerns.

I would expect that there is some common ground between the fracking and anti-fracking groups, and I think it would be helpful if both groups can provide written answers to the questions set out below at least a week before the meeting. This would make clear where the differences lie and could save a lot of time and argument on the day. So it would be appreciated if some attention could be given by both sides to responding to these points in writing before the planned public meeting. This should help to narrow the debate, as both sides and the public will then be able to make up their minds in advance on the issues which require debate.

So, could both parties verify or indicate they dispute the following statements and answer the questions which flow from them?

1. Fracking has been banned in a number of countries and states, including France, Germany, Holland and New York City. As far as I know, none of these countries or states was at the time led by any politician notable for having thorough-going environmental or left wing views. Fracking was banned in France by Sarkozy and not by Hollande. The question arises: if these countries thought it in the public interest to ban fracking, why should the UK be any less concerned than them?
2. At the DECC meeting, the DECC officials all agreed that fracking for coal gas in Australia and fracking for shale gas in the USA had been environmental disasters. Yet, we were re-assured that what happened in the USA and Australia cannot happen in the UK, because the UK will be much better at regulating the fracking industry.
3. There are concerns about regulation in the UK, because it is understood that regulation will be largely by the gas extraction companies themselves and the UK government is not going to significantly increase its HSE inspectorate in regard to mineral extraction. Indeed the Environment Agency has had its budget cut by 40% and DEFRA have closed 600 air monitoring stations to cut costs. So, how will the government be able to police the fracking industry if these organisations are being cut back to the bone?
4. There is an international treaty which is either in full force and effect now, or its completion is imminent. This is called the “Transatlantic Trade and Investment Partnership.” It has been or is being negotiated between the EU and the USA. What I understand this says is that, if any state within the EU or USA has regulations which are more stringent than the regulations in another state, any company affected by the regulations will be able to sue the government of the state with the more stringent regulations, and obtain compensation. Any dispute will not be referred to a court of law, but be settled by a committee which will sit in New York. I believe this means that, as far as fracking is concerned, the treaty will not prevent states from banning it, but that if fracking is not banned, then the UK cannot impose any more stringent regulations than those which currently apply in the USA. We need to know, therefore:

* What stage has the TTIP reached – is it a done deal yet, and does it bind the UK?
* Does the TTIP (or draft TTIP – if not yet implemented) prevent a member state from banning fracking altogether?
* Does the TTIP(or draft TTIP – if not yet implemented) prevent the UK from imposing more stringent regulations on fracking than those which apply to USA?
* When reference is made to “industry standards” or “industry approved fluids” are these the standards etc. which are or will be applicable under the Transatlantic Trade and Investment Partnership – ie. The minimum standards etc. which apply in the USA?

1. In some states in Australia, the oil and gas companies have the right to enter any land and set up rigs to exploit underground gas or oil. The landowners have no power to stop them, and this has caused farmland and other land to become almost worthless. See linked movie. It is understood that the UK government is currently pressing ahead with an “infrastructure” bill to give oil and gas companies similar powers to what they have in Australia – subject only to planning consent. Is this correct? If this is not correct, how does the bill currently before parliament affect property rights?
2. In the USA there have been many instances of well failure due to fracturing of the pipe or concrete casing. Frack free Ryedale say that in the USA 5% of wells fail in the first year of operation, 25% will leak within five years and 50% leak within 15 years, and that eventually all wells fail, allowing contaminated water to escape into the water supply. Is this correct?
3. Whenever the question is asked: what was the reason for well failure in the USA, the answer always seems to be: “We don’t know.” It is understood the reason for the absence of knowledge is that in the USA oil and gas companies are not required to make available to the public information which would be required anywhere else in the developed world. The result is that nobody really seems to know or understand what the real risks of fracking in shale are. The USA is a vast open country with generally a sparse population density. Is it really a good idea to allow what has failed in the USA to take place in the densely populated UK, before we fully understand the risks encountered in the USA and the lessons which have been learnt or should have been learnt there?
4. How far are the points made and the facts stated in the attached document: “How would fracking affect your land?” correct? Please supply answers to all issues in this document which are not covered in this note.
5. Considerable concern has been voiced about the chemicals used in the fracking process and the disposal of waste.At the DECC meeting I asked if it was possible to do fracking without using hazardous chemicals. The answer given by the HSE representative was that his department would ensure that the chemicals used would be limited to those on an agreed list. He added that this list was not one agreed by the HSE, but it would be an “industry approved” list. He said he would provide a copy of the current list. A number of questions follow this:

* What are the chemicals on the current industry approved list?
* How are such chemicals approved and by whom?
* Why can’t the HSE be responsible for approving such chemicals? Is this because the UK government will have no power to impose restrictions on the industry which might not apply elsewhere because of the Transatlantic Trade and Investment Partnership?
* According to Frack-free Ryedale, “a recent official US report on the fracking industry (July 2014) identified at least 59 chemicals in the waste water or the air which are dangerous to human health or the environment, including arsnic, benzene, lead and radioactive materials. Many of these are carcinogens and can affect livestock. ” Is this correct? Are they all “industry-approved”?

1. Frackfree Ryedale have made several comments about waste disposal under the section of their leaflet headed “Fracking is bad for water”. Further, a resident attended a recent consultation meeting given by Third Energy in connection with their planning application for fracking at Kirby Misperton. She asked how the waste water would be disposed of, and was told that water would be delivered and taken away through pipes which go to the plant at Knapton, and that there was an agreement with Yorwaste that they would take the waste water from there and they also said that Yorwaste were used to disposing of radio-active materials because they did this for hospitals. The resident said she had checked with Yorwaste and was informed that there was no such agreement with Third Energy, and that Third Energy did not dispose of radio acitive waste for hospitals. Another story I have heard is that waste water from fracking sites has been dumped into the Manchester Ship Canal. So, in addition to addressing the points made by Frackfree Ryedale under the heading: “Fracking is bad for water”, could we please have answers to the following questions:

* Are there any places in the UK which are licensed or have planning permission for the disposal of waste water from fracking?
* Is any licence or planning permission required for the disposal of waste water from fracking? If so, have any sites been licensed and if so, where are they?
* Is there a system of licensing for carriers of waste water from fracking sites, or can anybody do it?
* If there is no licensing system, is this because the Transatlantic Trade and Investment Partnership prohibits or makes it difficult to establish a licensing system?
* If there is a licensing system, what companies in the UK/Yorkshire are authorised to dispose of waste water from fracking, and how exactly do they dispose of it?
* Does Yorwaste have an agreement with Third Energy to dispose of their waste water, and if so, where will they dump it?
* Are there underground pipes which take water direct from Knapton to the gas well at Kirby Misperton, and other pipes which can take waste water direct from the well at Kirby Misperton to the Knapton plant without passing through the mains water supply and disposal pipes?
* Is it a legal requirement for fracking companies to publicly divulge the chemicals they put back in their fluid? If not, why not? (I think currently they only have to divulge them to the Environment Agency – not the public.

1. As regards the methods for drilling and extraction, I have the following concerns:
2. As I think DECC confirmed, stainless steel piping cannot be used, because stainless steel is a soft metal and could not withstand the pressures generated by the fracking process. So, water and other chemicals are being pumped into the well, while gas is being taken out of it. Does it not follow that the pipes will inevitably corrode and become rusty? What materials will be used for the well pipes?
3. It was been stated at the DECC meeting that the pipes will be given extra protection where they go through an aquifer (three casements of steel and concrete instead of one) or a coal seam (two casements of steel and concrete instead of one), and this should prevent any danger of the aquifer becoming contaminated by noxious materials being used in the fracking process. I pointed out that this would mean that there would only be a single casement for the rest of pipe which would go down several thousand feet (I think 10,000 feet was the depth discussed). I suggested that the pipe could fracture at any point below or above the aquifer and noxious chemicals from the pipe could migrate upwards into the aquifer. We were told by the HSE rep that this was “possible but unlikely” because the pipe would be surrounded by concrete and that there was a “shoe”. The question arises: “how possible and how unlikely”, particularly bearing in mind that fluids have to be pumped down wells under enormous pressures in order to make the process work. This gives rise to the following questions:

* If it is correct that in the USA, 5% of wells fail in the first year of operation, 25% will leak within five years and 50% leak within 15 years, and that eventually all wells fail, allowing contaminated water to escape into the water supply, is it not also reasonable to assume that the same rate of failure is likely to apply to the length of pipe in any well which has only a single casement?
* If any part of the single casement pipe fractures, what is there to prevent fluid from the fracture(s) migrating upwards into the aquifer?
* If it is suggested that the fluids will be retained by the concrete surrounding the steel pipe, how effective will that concrete casing be, bearing in mind the nature of concrete to fracture and/or crumble?
* How will the extracting company become aware of fractures? What reporting procedures will be used, and how will they be enforced? Who will enforce such procedures?
* How will the Transatlantic Trade and Investment Partnership affect this? Will any requirement to include additional casements for aquifers and coal seams contravene it, if such requirements do not exist in the USA? Will any requirements to monitor and prevent fractures have to be brought down to the level which applies in the USA?
* What (if any) are the requirements in full force and effect in the USA in regard to all such matters as are covered in the above questions (ie on casements in aquifers and coal seams and monitoring and reporting fractures and enforcement)?
* What was meant by the “shoe” and how will this work?
* How long are companies legally obliged to monitor fracking wells when they have finished fracking?
* What happens to an abandoned fracking well when the extracting company goes bust? Who monitors it then, and who would pay for any damage caused by leakages?
* Why isn’t independent baseline testing of air, water, soil and seismicity before and during fracking a legal requirement? Why has this been left to the companies themselves without any official monitoring? Is this because independent baseline testing is not required in the USA, and so to impose it in the UK would contravene the Transatlantic Trade and Investment Partnership?

1. Another point arises from my own experience in another capacity when dealing with building contract claims. Many years ago in the 1970’s when the health service was expanding, I worked for the hospital board at Liverpool. A new hospital was being built, and its foundations were being secured by piling through soft ground. A pile passed through a pocket of sand, which was water-bearing, and the concrete dissolved. The new piles were tested with a hydraulic hammer, and some of the piles collapsed. The point I am making is that rock and sediments are not always neatly stratified. Pockets of sand can exist within bands of clay, and even impervious stratified rock can have fractures and fissures through which water can pass. We may not have earthquakes in the UK, but slight tremors do occur, and these can affect the subsoil geology. So the following questions arise:

* What kind of concrete will be used to secure the steel pipes?
* How will the well be tested to ensure that there is concrete surrounding the pipes continuously from the bottom to the top of each well?
* How will this be checked and monitored?
* What government agency will enforce compliance?
* Does the Transatlantic Trade and Investment Partnership prevent the UK from having more stringent requirements in regard to testing, monitoring and enforcement than those which apply in the USA?

1. The Infrastructure Bill is proposing to allow fracking companies to leave “any substance” in wells underground. How is this going to make fracking safer?
2. Given that the latest reports on climate change say that we will need to leave 80% of fossil fuel reserves in the ground to avert disastrous climate change, why is government promoting fracking, particularly given all the environmental risks involved?
3. According to a peer-reviewed paper from Cornell University, when released gas from well leaks and truck movements are taken into account, shale gas is much more polluting than even coal. Is this accepted?
4. What is the impact on house prices? Frack Free Ryedale say that property prices in other parts of the UK where fracking is planned have fallen by 70%. I have heard that in the part of East Yorkshire where fracking is planned, proposals for fracking have killed the market and it is impossible for residents to sell their houses. Are these reports correct? What compensation is available for planning blight in these circumstances?

CLLR. PAUL ANDREWS, Malton Ward 5th January 2015