



FFBRA NEWSLETTER NUMBER TWENTY ONE

NEWS AND INFORMATION FOR OUR MEMBERS

Objections to Cuadrilla's Planning Objection

The high quality, quantity and variety of objections from the public to Cuadrilla's application to return to Balcombe are excellent. Thanks to everyone who submitted objections.

The FFBRA committee members are now reviewing the objections and working with our planning consultant to produce an objection which will be submitted on behalf of all members. The residents association has been granted an additional week beyond the public consultation date of the 13 March by WSCC to prepare and send in this objection.

Why Balcombe? How Big is our Oil and Gas Field?

In Newsletter Nineteen we asked "Why Balcombe?" We now have an answer as explained by Professor Fraser in the New Scientist March 10. He describes our parish as the "sweet spot for shale oil". This explains why Cuadrilla has purchased a thirty year lease for the Lower Stumble site.

<http://www.newscientist.com/article/dn25180-massive-stores-of-uk-shale-gas-will-tempt-frackers.html>

"Fraser has also found organic-rich shales further south, in the south-western county of Dorset, and in the Weald in West Sussex.

The richest formation was the Kimmeridge Clay, which runs diagonally from the south-west to midway up the east coast. The Clay has an organic content of up to 20 per cent, and is more than 500 metres thick in places. Fraser has not yet estimated the potential yield.

Fraser also found oil and gas-rich Oxford Clay in Dorset, in the south-west and under the Weald in the south-east. It had an average organic content of 12 per cent, but again he does not yet know the potential yield. Shales elsewhere in Dorset could yield 30 kilograms of oil and gas per tonne.

Oil and gas are also abundant under the Weald in the south-east. The best place for fracking appears to be beneath Balcombe, a village in West Sussex. "Our analysis highlights the Balcombe area in West Sussex as a sweet spot for shale oil," says Fraser."

FFBRA's investigation of the old 1986 Balcombe-1 well drilled by Conoco has revealed the following:

- The shale under Balcombe is 1,800 feet thick and comprises mainly Kimmeridge clay with two thin layers (each about 100 feet) of micrite limestone shale separated by 140 feet of Kimmeridge clay.
- Conoco acidified the micrite layer exposed in their well and this process increased the oil flow rate tenfold. This easily "acid fracked" calcium based rock is less than 12% of the total shale bed thickness. The rest of the shale bed will need hydraulic fracturing or some other technique to release the oil because the rock is silica based rather than calcium based.

This information supports Professor Fraser's statement in the New Scientist that we are probably sitting on top of a main oil and gas field should fracking be allowed. However, there are appear to be two major problems:

- The top of this shale formation is only 1,850 feet below the surface. This is much less than the three to four kilometres (10,000 to 13,000 feet) depth normally considered safe for fracking in the US.
- The geology of Balcombe is known to be heavily faulted which is a problem not normally encountered in US oil and gas fields where faults are comparatively rare.

Drilling Under Your Home and the Lords

There has been very little in the press about the changes to legislation being made by the government which will allow drilling companies to drill under people's homes without notifying each owner and tenant individually.

However the Daily Telegraph on the 29 January 2014 reported that this legislation, although almost finalised, is now being held up by the House of Lords. See <http://www.telegraph.co.uk/earth/energy/fracking/10605859/Pro-fracking-planning-reforms-rushed-through-despite-strong-opposition-Lords-warn.html>

A Lords committee has found that ministers rushed through pro-fracking planning reforms without proper scrutiny and despite overwhelming opposition. <http://www.publications.parliament.uk/pa/ld201314/ldselect/ldsecleg/124/124.pdf>

Currently if Cuadrilla wanted to drill under the houses in Balcombe, they would have to notify each homeowner and tenant individually. Once this legislation is finalised drilling companies will only be required to publish a notice in a local newspaper and put up site displays in local parishes. How very convenient for them. A Lords committee has urged the Lords to look again at the reforms, raising a series of "shortcomings" with how this has been rushed through. They say the policy had not

been “adequately thought through” and may “imperfectly achieve their policy objectives”. They are also complaining about the lack of public engagement.

Next PEDL Licensing Round – Please Respond to DECC AMEC Report. The Government is supposed to be consulting with you!

Last year the government commissioned an engineering consultancy company called AMEC to produce a report on which to base the 14th round of licensing for the onshore shale gas industry.

AMEC is one of the world’s leading engineering, project management and consultancy companies. From their website their customers, *“in both the private and public sector, are among the world’s biggest and best in their fields - BP, Shell, EDF, National Grid and U.S. Navy to name just a few”*.

The DECC AMEC report recommends offering licenses in the 14th round for over 37,000 square miles of the country, stretching from central Scotland to the south coast. In fact every county in England, except Cornwall (which is not suitable as the rock is granite), could have shale gas exploration or coal bed methane permitted, according to a map showing areas the Government plans to offer licenses to energy companies.

The consultancy firm was asked to consider three options:

1. *Not to offer any blocks for licensing*
2. *To proceed with the licensing programme as proposed*
3. *To restrict the area licensed temporarily or spatially*

AMEC have recommended option two which is to proceed without restricting the area to be licensed either by physical restrictions or by staggering the issuing.

So the DECC AMEC report recommendation is to open up more than 60% of the country to licensing for the shale gas industry with no restriction to protect national parks, proximity to reservoirs, proximity to population, areas of special scientific interest – and that this should be done in one hit – big bang! They particularly state that fracking and coal bed methane should be allowed. The map of the areas to be licensed is on page vi of the report.

The report also includes their assessment of the impact of this aggressive licensing plan which takes the form of a series of one sided analysis in a pseudo-scientific format. For example they estimate that 31,771 jobs could be created in the oil industry over an eight year period and use this job creation factor as support for the effect on the population as being positive. There is no estimate for the loss of jobs in tourism, farming, and house building trade or through ill health. Or indeed to the cost to the NHS of ill health and social disturbance.

The report on page 84 quotes the potential benefit to community of *“an initial community contribution of £100,000 per well pad where hydraulic fracturing takes place”*.

But does not estimate the impact on houses prices. To put this into context a community such as Balcombe with 700 homes with an average price of £400,000 suffering a drop in houses values of 10% would see a total drop in property values of £28 million and would receive £100,000 in return. In the AMEC report the £100,000 is cited as a benefit. Impact on property values is excluded.

But it is their cavalier approach to human health that is the most alarming.

Page 91 *“Hydraulic fracturing would be required during Stages 2 and 3, and is assumed to be required during Stage 4. As noted above, there may be effects due to emissions to air and noise both directly from machinery used in fracturing and from associated HGV movements. There is also a potential risk of release of fracturing fluids or flowback water (the latter of which may include trace elements, naturally occurring radioactive materials (NORM) and organic material) to aquifer sources if, for example, the cementing of a well is inadequate or fails during high pressure under fracturing. This could have a negative effect on human health through the contamination of water supply. However, the risk of wells failing if appropriately designed, constructed and maintained is very small and therefore under the current regulatory framework no significant risk to human health from this issue is anticipated”.*

Page 96 The threat to public health from air pollution from this acceleration of the shale gas industry described as “not unacceptable” provided there was a 5 km gap between drill sites. *“This principally reflects emissions to air from on-site machinery, HGV movements 101, drilling and hydraulic fracturing which could result in air quality impacts on sensitive receptors including residents and biodiversity. Additionally, there would also be emissions from flaring, which would primarily result in the production of CO₂ but also NO_x, SO₂, CO and Particulate Matter, and from methane within flowback water, although methane emissions will vary depending on the completion method.*

Whilst it is assumed that there would be a 5km distance between well pad sites (as per the assumptions set out in Table 2.5) and activities would not be undertaken simultaneously, which may reduce the potential for localised impacts on air quality arising from multiple well pad sites, effects could be significant where sites are located within or in close proximity to areas where there are existing air quality issues (such as Air Quality Management Areas) and/or sensitive receptors. However, it can be anticipated that regulatory controls through the Town and Country planning system and subsequent environmental permitting will ensure that these effects are not unacceptable”

Humans are discussed in this document as a “Sensitive Receptor” of noxious byproducts in the same way as birds, bats and other forms of wildlife. The protection of all of these “sensitive receptors”, animal and human is then delegated to the planning authority. Unfortunately under planning rules and guidance the humans come a poor second to birds, bats and newts.

To comply with European law the government has been forced to put this report out for public consultation. This is in order to comply with the European Union Directive 2001/42/EC on the effects of certain plans and programmes on the environment.

As a result of this legal requirement The Department for Energy and Climate Change (DECC) published the report in December 2013 as an environmental study into the scale of shale reserves and its potential impacts. Public consultation finishes on March 28.

So DECC have set up a website where you can submit your comments.

What they have not done is publicise it!

The RSPB, National Trust and others have published their response to this report on 13 March 2014 entitled “**Are we fit to frack?**” and a copy of it is attached with this newsletter.

The RSPB, the National Trust and the other charities have made sensible recommendations to protect birds, bats, rivers, streams and our wonderful British countryside. It seems sad to me that their remit for protecting wildlife and the environment excludes protecting the interest of humans.

How many people do you know who are aware that the government is seeking public comment on their proposal to license much of England to the shale gas industry?

Did you know you have a right to comment on the government’s proposal? Different government ministers, including the prime minister and the chancellor have been on television and quoted in newspapers regularly over the last year cheerleading for the shale gas industry. So far as I am aware not one minister has used the media to inform us of our right to comment on these important proposals to extend the PEDL to 60% of England which, if accepted, will affect our lives and those of future generations irreversibly.

Any member of the public can comment and the more that do the better because this is our only chance of stopping this appalling proposal.

DECC have set up a website where you can give your comments online to three questions.

1. Do you think that the Environmental Report has identified the significant environmental effects of the activities that could follow the licensing round? If not, what other significant effects do you think we have missed, and why?

2. Do you agree with the conclusions of the Environmental Report and the recommendations for avoiding, reducing or off-setting significant effects of the activities that could follow the licensing round? If not, what do you think should be the key recommendations and why?

3. Do you agree with the proposed arrangements for monitoring the significant effects of the activities that could follow the licensing round, as detailed in the Environmental Report? If not, what measures do you propose?

Responses need to be submitted by March 28th. Anyone can submit a response to this consultation document.

Conservation Charities Response to the DECC AMEC Consultation

A partnership of leading conservation charities which includes The Angling Trust, the National Trust, the Royal Society for the Protection of Birds (RSPB), the Salmon & Trout Association, the Wildlife Trusts and the Wildfowl & Wetlands Trust (WWT) have studied the DECC AMEC proposals. On the 13 March they issued their response in a document entitled “Are We Fit to Frack?” In it they have proposed 10 recommendations to address the risks of shale gas extraction and to ensure that regulation for the shale gas industry is fit for purpose of conservation.

To read more about this go to
www.rspb.org.uk/fracking

Summary of the conservation charities recommendations:

1. *Avoid sensitive areas for wildlife and water resources by creating shale gas extraction exclusion zones.*
2. *Make Environmental Impact Assessments (EIA) mandatory for shale gas extraction proposals*
3. *Require shale gas operators to pay for a world-class regulatory regime*
4. *Prevent taxpayers from bearing the costs of accidental pollution*
5. *Make water companies statutory consultees in the planning process*
6. *Require all hydraulic fracturing operations to operate under a Groundwater Permit.*
7. *Make sure Best Available Techniques (BAT) for mine waste management are rigorously defined and regularly reviewed.*
8. *Ensure full transparency of the shale gas industry and its environmental impact.*
9. *Ensure monitoring and testing of shale gas operations is rigorous and independent.*
10. *Minimise and monitor methane emissions.*

These organisations are all trusted by the public and have a lot of political influence. Let's hope that the government accepts all their recommendations fully. You can help by including some of these recommendations in your own submission.

Guidance for making your own response to DECC

There are only 3 questions, so it shouldn't take more than 10 minutes. Here is an example of the response I submitted. It is just an example; a friend wrote the same length response but wrote solely about the impact on human health so there is no model answer to these questions.

It would be great if all FFBRA members send in their own personal objection and also encourage their friends and families to do the same.
These can be sent by

Writing to: Oil and Gas Policy Unit, Department of Energy and Climate Change,
Area 3B, 3 Whitehall Place, London, SW1A 2AW

Email to: ogsea@decc.gsi.gov.uk

Or submitting via their website at:

<https://econsultation.decc.gov.uk/decc-policy/consultation-env-report-further-oil-gas-licensing>

What is your name? Sue Taylor

What is your email address? Suetaylorbalcombe@email.com

What is your organisation? Not applicable

1. Do you think that the Environmental Report has identified the significant environmental effects of the activities that follow the licensing round? If not, what other significant effects do you think we have missed, and why?

Your answer:

- No – public health impacts have not been addressed. The human population is as much a part of the environment as any other factor and should be protected.
- Shale gas extraction exclusion zones must be introduced to protect all sensitive areas for wildlife and water resources. This should include National parks, and areas of outstanding natural beauty (AONB)
- Shale gas extraction exclusion zones must be introduced for all flood areas in the UK particular the Somerset Levels and the Thames Valley.
- There should be a minimum distance from residential homes and schools of at least 1,500 feet as has been introduced in Dallas, Texas
- Water companies must be made statutory consultees in the planning process
- The fire service must be made a statutory consultee in the planning process
- The views of the local people must be taken into account and they should be consulted before issuing PEDL for their area not afterwards.
- No more PEDL licenses should be issued until the government has a plan in place as to where the radioactive waste would go and how it would be processed.

2. Do you agree with the conclusions of the report and the recommendations for avoiding, reducing or off-setting significant effects of the activities that follow the licensing round? If not, what do you think should be the key recommendations and why?

Your answer:

- No - the key recommendation should be to conduct rigorous scientific research into the public health impact of your plans before allowing any drilling to occur.
- There should be a moratorium on issuing shale licenses until there is more independent information obtained.
- In any event, the awarding of licenses should be time staggered to avoid a mass impact when things go wrong.

- Job losses to tourism, recreational industries and farming should be estimated and compared to projected job creation from the shale gas industry.
- Effect on house prices should be estimated and taken into account as the significant loss in capital value of homes due to the impact of drilling, traffic and the danger from abandoned wells has a huge social impact

3. Do you agree with the proposed arrangements for monitoring significant of the activities that follow the licensing round, detailed in the Environmental Report? If not, what measures do you propose?

Your answer:

- No, I propose that baseline measurements of the public health of the human population, water and air quality be taken before any drilling takes place in any community, accompanied by ongoing sampling and monitoring by an independent 3rd party to check impacts.
- Mandatory Environmental Assessments must be introduced. These must be done before any exploratory work starts not afterwards.
- Self-regulation does not work. Regulation must be independent and rigorous.
- All hydraulic fracturing operations must operate under a Groundwater Permit
- There must be punitive sanctions for breaking of regulation or permit conditions. For example that Cuadrilla have been allowed to drill in Britain after their failure to report for six months the damaged well casing in Lancashire makes nonsense of the self-regulatory regime.
- Methane emissions must be minimised and monitored by independent testing

EVENTS

Balcombe

Parish Council Meeting, Bramble Hall, Wednesday 19 March 8 pm to 9.30 pm

Please go if you can. Do not leave this to other people.

Coffee and a Chat, Half Moon Pub, Thursday 20 March 10.30 pm

We have been able to obtain 89 Conoco reports about the original well drilled in Balcombe in 1986. These are providing us with a wealth of detail about the drilling of the Balcombe-1, the geology, the test results and the traffic flow through the village in 1986. Some of these documents will be available for you to read at the pub. One report has revealed an interesting fact. When Conoco drilled in 1986 they used a circular route to Lower Stumble which involved the inbound traffic going through Cuckfield and only the outbound traffic going through Balcombe and pass the school.

Latest Date for Submission to DECC Consultation, Wednesday 28 March

One to do at home. It need take no more than 10 minutes. For details see above <https://econsultation.decc.gov.uk/decc-policy/consultation-env-report-further-oil-gas-licensing>

Beyond Balcombe

Wadhurst - Public Meeting on Shale Gas & Fracking

Friday, March 28 7.30 pm to 10.30 pm

PUBLIC MEETING, Shale Gas and Fracking.

Free event- Film, The truth behind the dash for gas.at Uplands Community College, Lower High Street, Wadhurst, TNG 6AZ,

Guest speakers include:

- Keith Taylor MEP South east
- Dr Jennifer Huggett Geologist

Followed by questions and answers.

Refreshments available by Wealden Wholefoods

Vision of Sussex Ten years On, Saturday 26 April 10.15 am to 4 pm

Ruskin Hall, by Top Cark Park, Emerson College, Forest Row, Sussex Rh18 5JX

A day of talks, forum, photos giving a vision of today's Sussex and tomorrow's prospects.

Hosted by Vanessa Underwood. To book lunch contact 01825-790773.

Admission free. Donations welcome.

10.15 am Coffee and introductions

10.45 am Forum

12.45 pm Lunch (or bring your own)

1.45 pm Artwork, Slides, Short film

2.15 pm Ian Crane

3.15 pm Final Plenum with Youth Vision

4.00 pm Tea and Music with Portia Cox and Ben Grove

4.30 pm Optional Free Space for Discussion

Speakers

Ian Crane (Oil Executive)

Wendy Cook (Real Nutrition)

John Twyford (Dairy Farmer)

John Marking (Forestry)

Portia Cox and Ben Grove (Musicians)

David Pinnegar (Physicist)

Others (a lawyer, a conservationist, a water researcher)

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