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Planning for Shale Oil & Gas

Mary Campbell and Gordon Halliday
Stephen Barker



March 2016

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Housekeeping & Introductions



What is Planning Advisory Service for?

*“The Planning Advisory Service (PAS) is part of the Local Government Association. The purpose of PAS is to **support local planning authorities to provide effective and efficient planning services, to drive improvement in those services and to respond to and deliver changes in the planning system**”*

(Grant offer letter for 2013-14)

Key Facts

- Started in 2004
- Funded by DCLG
- 11 staff. Supplier framework. Peer community
- Always subsidised. Mostly without charge
- Non-judgemental. Not inspectors
- Respond to reform. Keep you current
- Support, promote, innovate





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A Brief Introduction to Shale Oil & Gas

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March 2016



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By a show of hands

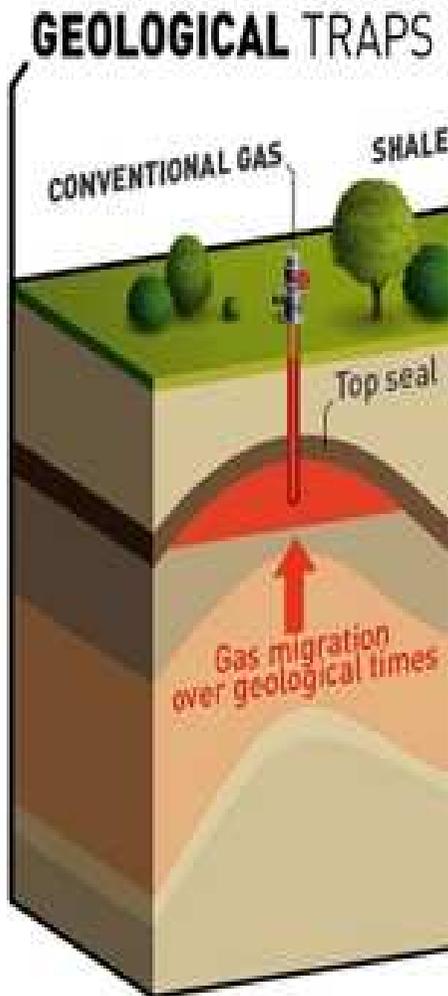


- Who attended a workshop on shale oil and gas run by PAS in March 2015?
 - Who has direct experience of preparing planning policy on shale oil or dealing with a planning application (or pre-application discussions) on shale oil in their MPA (in an officer or councillor capacity)?
 - Who has had direct experience of Planning Performance Agreements?
-

What is Shale Gas/Oil?

- Shale is formed from muddy sediments rich in organic matter deposited in seas millions of years ago
 - As these sediments were buried, they were heated and turned into rock and the organic matter was converted into oil and gas
 - These rocks are often source rocks for conventional oil and gas fields but have low permeability so it is difficult to extract oil or gas from them directly
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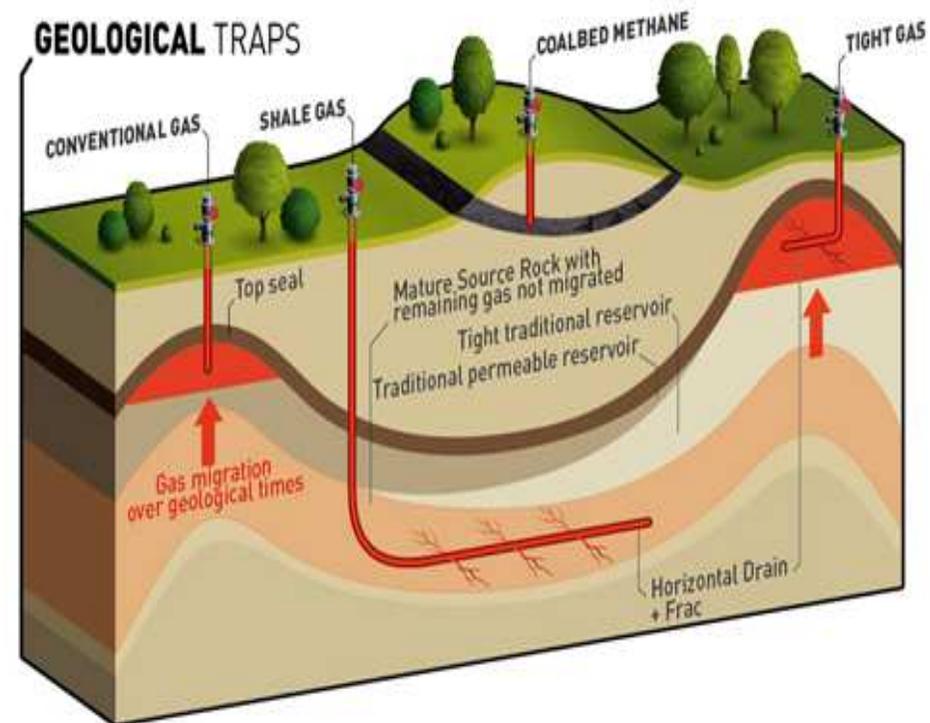
Conventional oil and gas in the UK



- Free oil and gas trapped in porous reservoirs (usually sandstone or limestone)
 - Relatively easy to extract
 - Extracted in UK for over 100 years
 - Around 2100 wells have been drilled, some hydraulically fractured
 - Current production is 20,000 barrels of oil per day from 120 sites throughout the UK
-

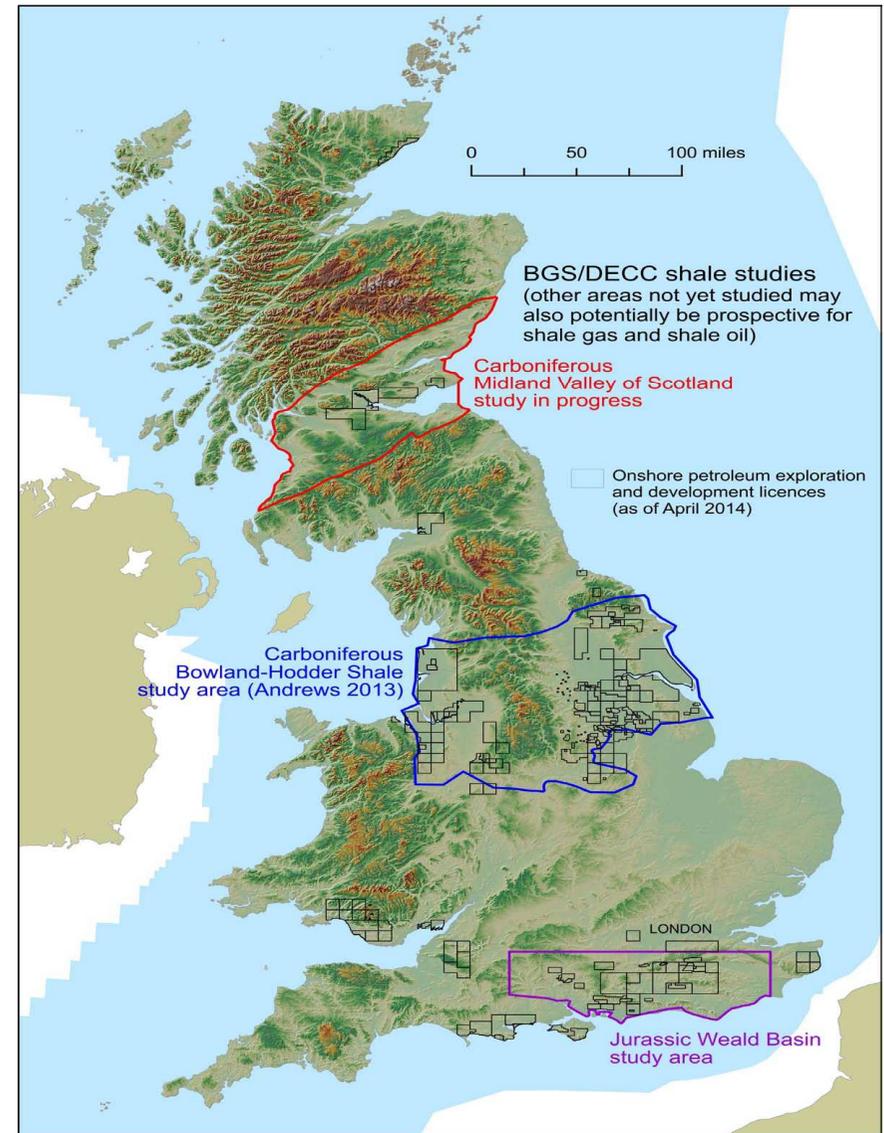
Unconventional Gas and Oil

- More than 2.5 million wells ‘fracked’ worldwide during last 60 years
- ‘Fracking’ or hydraulic fracturing involves injecting water, sand and non-hazardous chemical additives at high pressure into the shale rock formation to extract gas trapped in the rocks. 99% Of the mixture is water and sand.
- Accounts for 25% of natural gas production in USA
- Can now be extracted economically in UK with improved drilling technology – horizontal drilling
- Today not looking at coalbed methane or tight gas which is a very different process



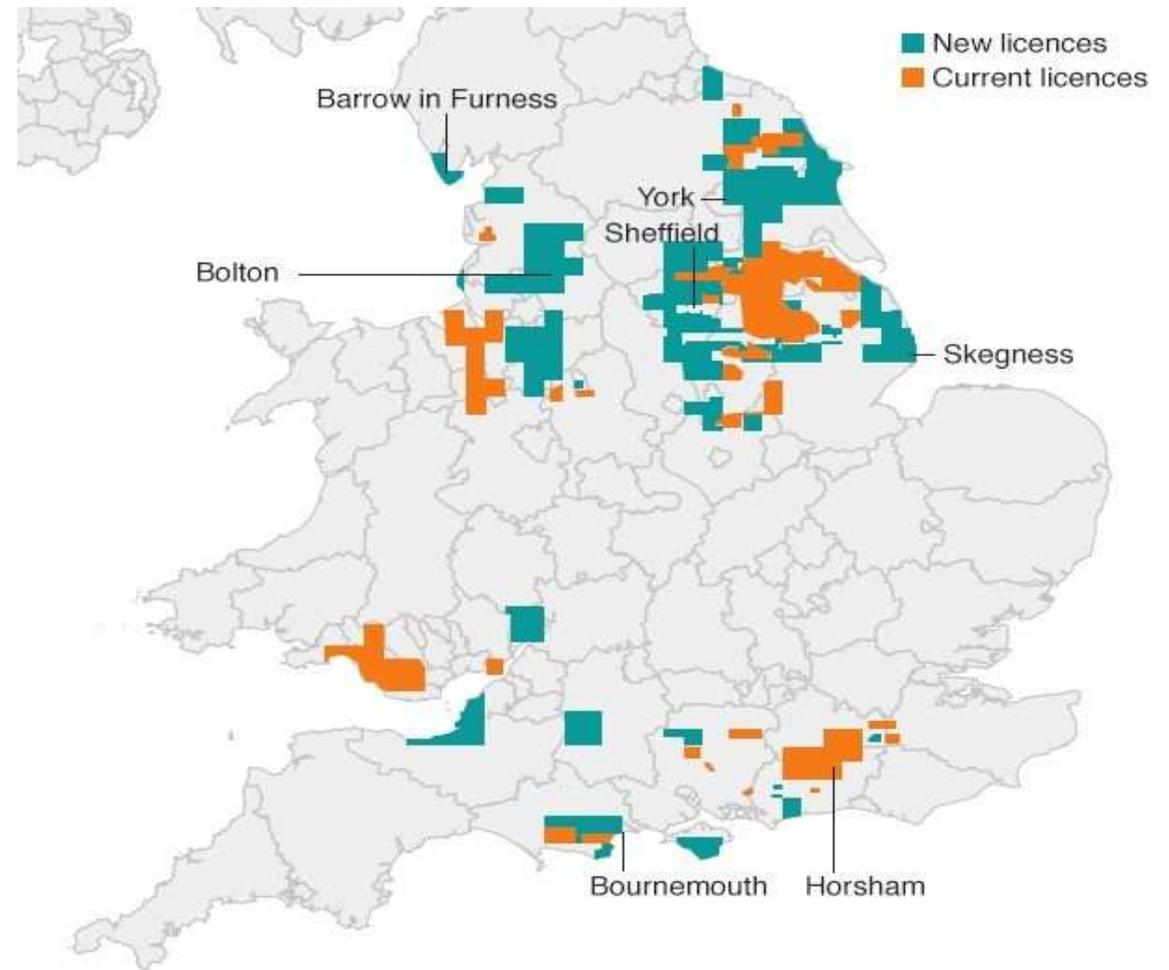
Shale Gas and Oil in the UK

- Resources believed to exist throughout the UK but principally in Northern and Central England, Southern England (shale oil) and Central Scotland (gas and oil)
- BGS has assessed the amount of gas and oil potentially available
- BGS estimate the volume of gas resources in the Bowland-Hodder shale in Northern England is some 1300 trillion cubic feet (central estimate)
- No wells currently in production in UK
- Start of process is the award of a Petroleum Exploration and Development License (PEDL) to explore issued by OGA.



14th Onshore Oil and Gas Licensing Round

- Oil and Gas Authority (OGA) awarded 159 blocks to companies in December 2015
- 75% of the blocks relate to shale oil and gas
- PEDLs grant the licensee exclusive rights for exploration, appraisal and extraction (subject to necessary consents)
- Successful companies included Cuadrilla, IGAS and INEOS



Source: Oil and Gas Authority

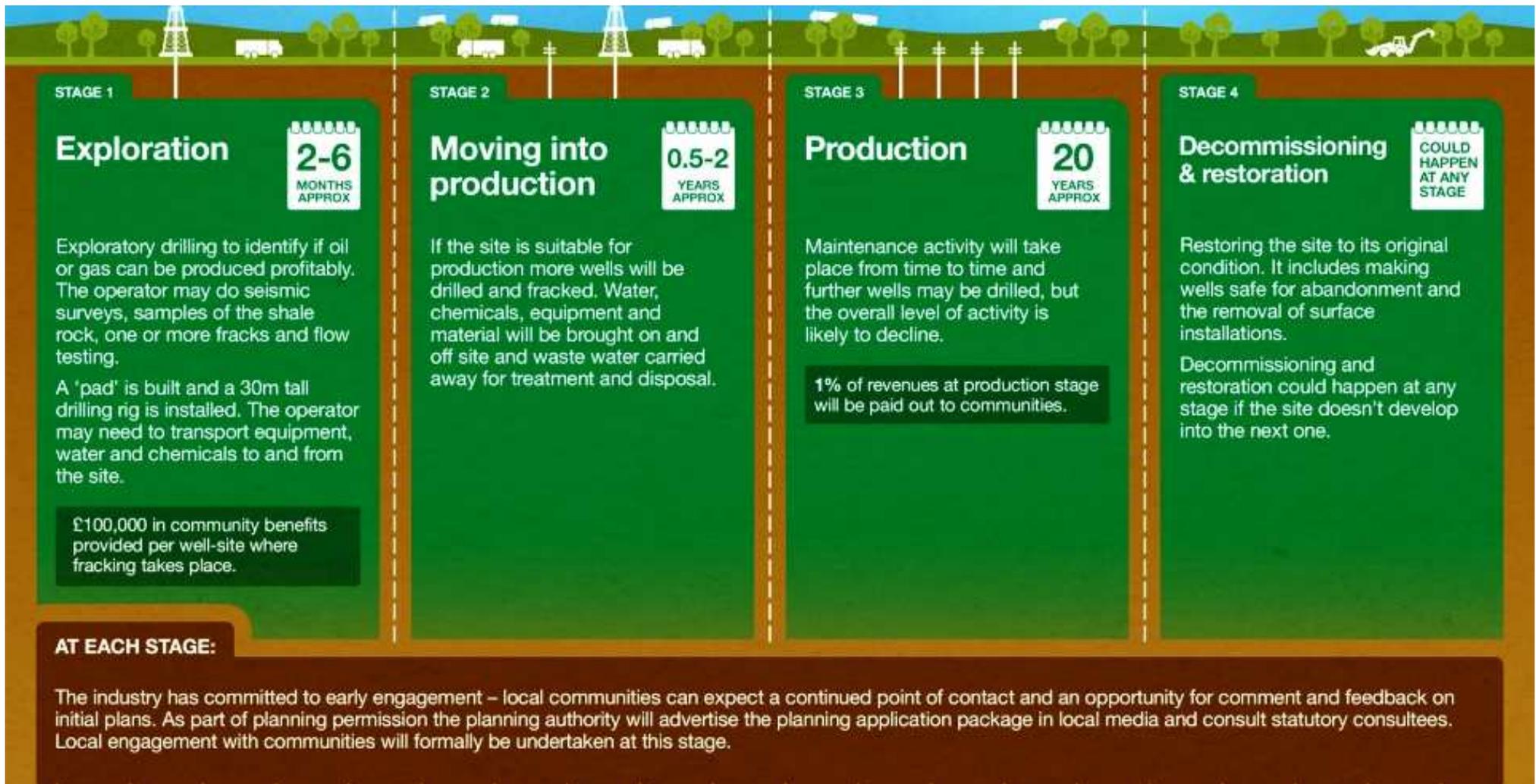
Award and Consents Process



Regulators

- **Oil and Gas Authority (OGA)** – issues PEDL, requires Environmental Risk Assessment, assesses operator competency and financial viability, grants consent to drill, to fracture and for extended well test
 - **Environment Agency (EA)** – issues environmental permits and consents relating to groundwater, mining waste, radioactive substances, water abstraction and discharge, industrial emissions, flood risk
 - **Health and Safety Executive (HSE)** – requires a well examiner scheme, approves well design, requires advance notice of intention to drill
 - **Coal Authority (CA)** – requires permit if drilling encroaches on coal seams
 - **Mineral Planning Authority (MPA)** – prepares Development Plan, screens for and scopes EIA, carries out consultation, considers planning application, monitors operations, oversees restoration
 - **Planning Inspectorate or SoS** – determine appeals
 - **British Geological Survey (BGS)** – informed of intention to drill
-

Stages of shale gas and oil



What is hydraulic fracturing (fracking)?

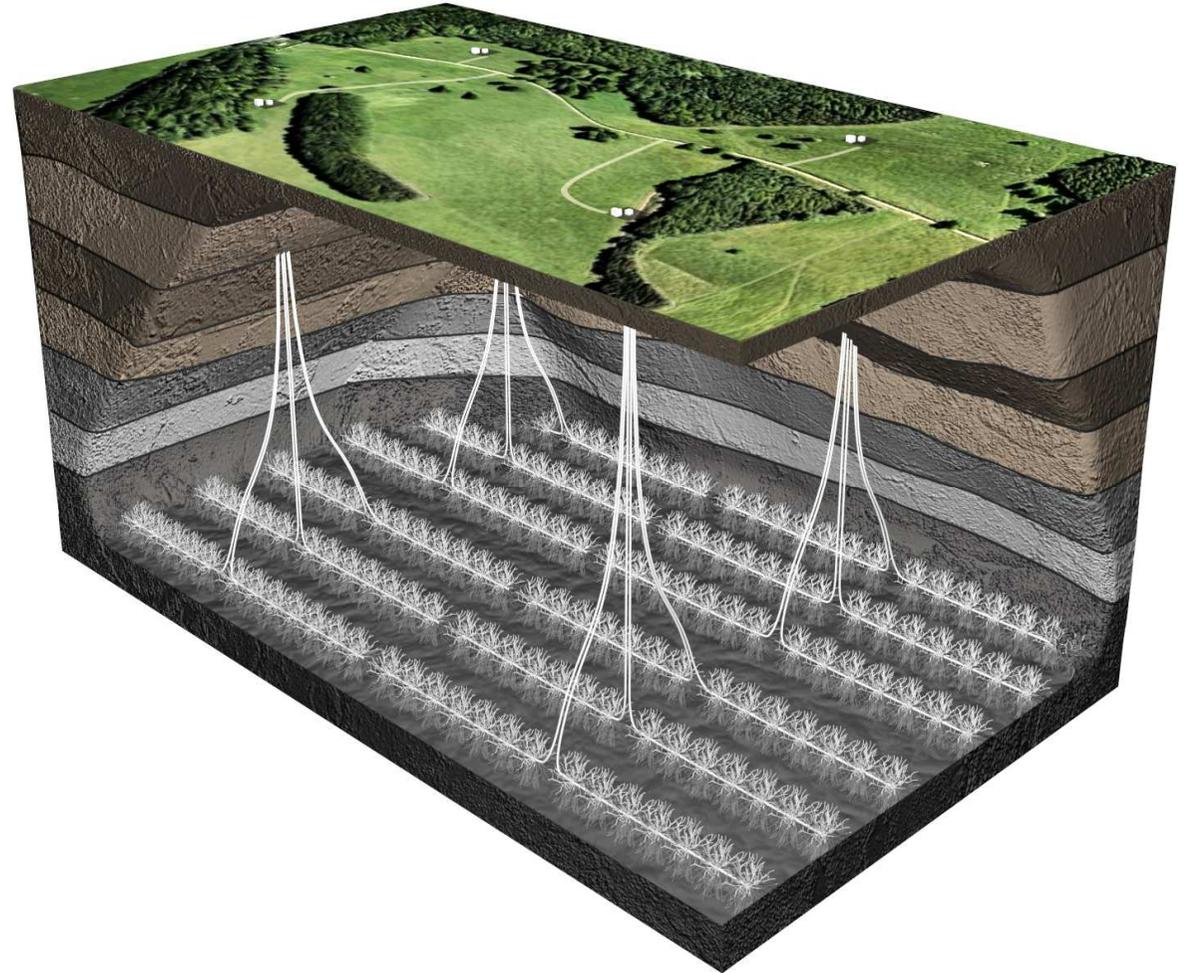
- Water, sand and additives pumped at pressure into the shale opening up hairline fractures to allow gas to flow from the shale. 99% is water and sand
 - Additives are non-hazardous and require prior approval from EA
 - Gas flows from the well together with some fracking fluid known as flow-back fluid
 - Gas flared during exploration, flared or piped off site during appraisal and piped off site during production
 - Aim of fracking is to maximise the amount of gas extracted
-

Shale Gas Exploration Site



Hypothetical Production Area

- Small surface well pads
- Extraction from large underground area through horizontal drilling
- Each well operational for possibly 20 years



Hypothetical Production Site



Environmental Considerations

- Water use for hydraulic fracturing
- Waste management – drill cuttings, flowback fluid
- Risks of contamination – groundwater, surface water, soil
- Emissions – dust, noise, gas
- Seismicity
- Transport and traffic – HGVs for site creation and removal and waste removal
- Ecology
- Landscape and visual amenity
- Climate change
- Health and well being
- Public concerns and perceptions



Summary

- Potentially significant resource but low level of activity to date in UK
 - Comprehensive and robust regulatory controls by a range of agencies
 - MPAs have a key role to play
 - Wide-ranging environmental impacts need to be considered
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Planning for Shale Oil & Gas

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Planning Director, Stephenson Halliday

Date: March 2016



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Introduction

- National Policy & Guidance
- Written Ministerial Statements
- Infrastructure Act 2015
- Development Plan Policies
- Planning Applications
- Good Practice



National Policy & Guidance



NPPF (March 2012):

- **Para 14** Presumption in favour of sustainable development
 - **Para 142** Important that there is a sufficient supply of material to provide the ...energy...that the country needs
 - **Para 144** LPAs should give great weight to the benefits of mineral extraction, including to the economy ...(and) ensure...that there are no unacceptable adverse impacts on the natural and historic environment, human health...
 - **Para 147** When planning for...unconventional hydrocarbons, MPAs should clearly distinguish between the three phases of development (exploration, appraisal and production) and address constraints on production and processing within licensed areas
 - Also relevant is **Para 122** which advises Planning Authorities to focus on whether the development itself is an acceptable use of land, and the impact of the use, rather than the control of processes or emissions where these are subject to approval under pollution control regimes.
-

National Policy & Guidance

Planning Practice Guidance

- Provides detail and guidance on planning for hydrocarbons
 - **Para 91** In the case of unconventional hydrocarbons (such as shale gas) ... there is a pressing need to undertake exploratory drilling to assess whether or not there are sufficient recoverable reserves to allow full scale production on an economically viable scale.
 - **Para 106** Local Plans should include PEDL areas on Proposals Maps and develop criteria-based policies for each of the exploration, appraisal and production phases of hydrocarbon extraction. These policies should set clear guidance and criteria for the location and assessment of hydrocarbon extraction within the Petroleum Licence Areas
-

National Policy & Guidance

Planning Practice Guidance (continued)

- **Para 110** Identifies issues which are covered by other regulatory regimes and advises that MPAs should rely on the assessment of other regulatory bodies
 - Seismic monitoring, flaring, operation of surface equipment, treatment of waste, chemical content of fluid, well design, construction and integrity and decommissioning.
 - **Para 112** Before granting planning permission MPAs will need to be satisfied that these issues can or will be satisfactorily addressed by taking advice from the regulatory body
 - **Para 223** Where applications represent major development, shale gas extraction in National Parks, the Broads and AONBs should be refused except in exceptional circumstances and where they are in the public interest. In World Heritage Sites consent should be refused if substantial harm would result unless wholly exceptional circumstances apply*. (PPG amendment July 2014).
-

Written Ministerial Statements

- The **Written Statement on Shale Gas and Oil issued by Amber Rudd on 16th September 2015:**
- identified a clear need to seize the opportunity to explore and test our shale potential... whilst maintaining the very highest safety and environmental standards
- made clear the Government's desire to ensure that planning applications for shale gas and oil developments are dealt with quickly
- emphasised the importance of public engagement, and the necessary involvement of other regulators.
- MPAs to be confident that the regulators will enforce safety, environmental and seismic regulation effectively



Written Ministerial Statements

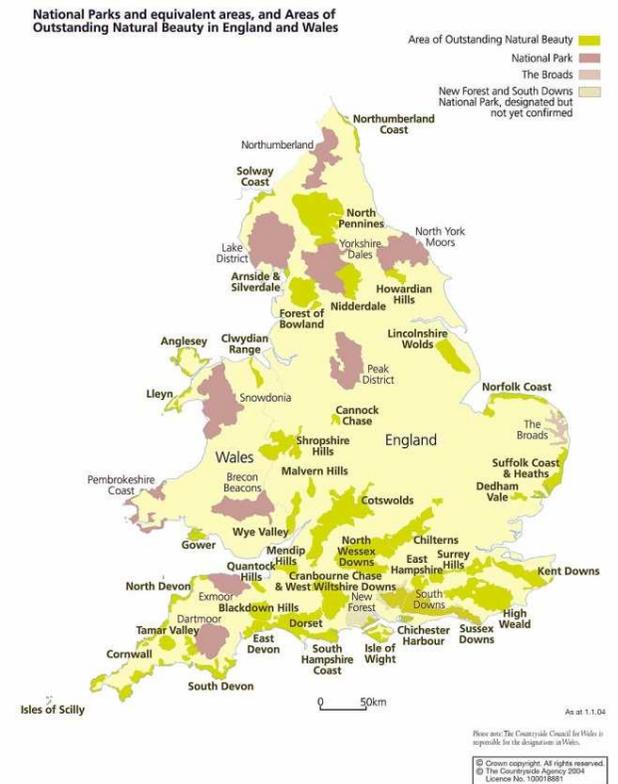
- £1.2m shale support programme - providing funding to MPAs in 2015/16 to enable the timely determination locally of planning applications for shale gas and oil
 - Commitment to amending PD Rights to allow drilling of boreholes for groundwater monitoring
 - DECC is consulting on proposals for PD Rights for drilling boreholes for seismic investigation and mine working*
 - Aim is to speed up delivery of essential monitoring information
 - Planning applications to be dealt with within statutory time frames (16 weeks for EIA development)
 - Reinforced by the **Written Ministerial Statement Planning for Shale Gas and Oil** issued by Greg Clarke on the same day:
-

Written Ministerial Statements

- The Government commits to identifying underperforming LPAs that repeatedly fail to determine such applications within statutory timeframes
 - Revision to recovery criteria for Appeals
 - 18 November 2015 Amber Rudd set out the “*Priorities for UK energy and climate change*’ in a further Written Ministerial Statement confirming that:
 - The government is encouraging investment in our shale gas exploration so we can add new sources of home-grown supply to our real diversity of imports.
-

Infrastructure Act 2015

- The Infrastructure Act 2015 simplified the procedure for obtaining the right to use underground land 300 metres and below for the purpose of exploiting oil and gas. Most of the provisions came into force on 12 April 2015. Section 50 (safeguards) will commence on 6 April 2016.
- S50 introduces a range of further requirements (safeguards) that must be met before a hydraulic fracturing consent will be issued.
- In December 2015 Parliament approved the protected areas in which hydraulic fracturing will be prohibited. It cannot take place in at depths above 1200 metres in National Parks, the Broads, AONBs, World Heritage Sites and areas that are most vulnerable to groundwater pollution.



Clear Government Message

- Strong government support for exploration, testing and exploitation of shale gas resource
 - Government commitment to highest safety and environmental standards
 - Processes and resources to assist MPAs to decide applications within statutory timeframes
 - Assumption that regulators will do their job and enforce safety rigorously
 - Some changes to permitted development rights will help simplify the regulatory process
-



Development Plans

2015 PAS workshop reported a need to update plan policies.

What is the position now?

- Many authorities rely on general minerals development management (criteria based) policies e.g. Lancashire (although proposing to prepare tailored unconventional hydrocarbon policy in review of MWLP)
 - Others rely on the same policy approach for both conventional and unconventional hydrocarbons e.g. Nottinghamshire, Hampshire, Lincolnshire
 - Others are preparing tailored policy approach for unconventional hydrocarbons e.g. North Yorkshire
 - Emerging SPDs e.g. Lancashire, Hampshire
-

Managing Planning Applications

2015 PAS workshop identified some common themes and good practice from MPAs dealing with applications:

- Dealing with large numbers of representations a problem – impossible respond to them all
- Shale gas/oil applications are heavy on resources (staff time and external technical expertise)



However:

- Informal information sharing groups set up
 - Training workshops for elected members being delivered
-

Managing Planning Applications

MWLP Event held in Hampshire in July 2014 identified:

- Communities where exploration or exploitation of shale gas/oil is proposed have have clear concerns
- a lack of confidence by the public in the ability and capacity of the planning and regulatory system
- confusion about the roles of the MPAs and regulators
- A need for greater transparency by operators and regulators
- Recognition that there may be opportunities and benefits arising from shale gas/oil developments.



Managing Planning Applications

What is the position now? Interviews with:

- Lancashire CC
- North Yorkshire CC
- Nottinghamshire CC



Common Themes:

- Level of media and public interest is unprecedented – 1000s of representations received
 - Public concern about capacity of Regulators and lack of understanding of the role of Regulators
 - Applicants have a responsibility to aspire to and deliver “highest environmental standards”
 - Decisions are subject to highest level of scrutiny
-

Managing Planning Applications

Examples of good practice:

- MPA dedicated web pages providing clear and comprehensive information
 - Interface with Regulators is critical and informal regular communication channels are being set up MPA / EHO/ EA / HSE
 - Additional resources for MPAs were made available for 2015/16 through a £1.2m DCLG fund. No announcement yet about 2016/17.
 - Regulator-led public engagement events held
-

Summary / Issues for Discussion

- Clear government position on Shale Gas and Oil (NPPF, PPG, WMS, Infrastructure Act)
 - Updated Development Plan Policies emerging but slow process. Role of SPDs?
 - Public concern / opposition to Shale Gas/Oil (fracking) remains high
 - 16 week determination period – is it achievable?
 - Will Planning Performance Agreements deliver quicker decisions?
 - How can community engagement be more effective? How to build public trust?
 - Can interface with Regulators be improved?
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Break-out session: Solutions for the Challenges in Planning for Shale Oil & Gas

In groups of 8-10 people

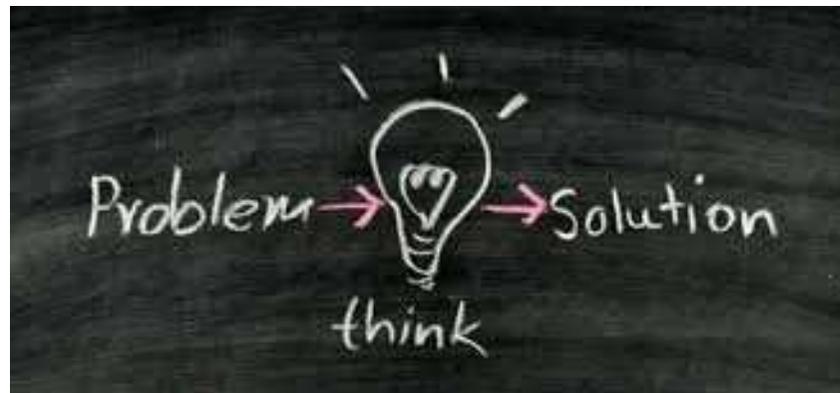
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Challenges - Solutions

- We have given you some of the facts about planning for shale gas and oil
- We have identified a number of key challenges
- We now want you to discuss these challenges in groups and come up with possible solutions
- Don't dwell on the problems or the difficulties – concentrate on the solutions



Practical Exercise

- What techniques can the industry and the MPAs apply to help deal with the public concern and large numbers of representations received on shale gas/oil applications?
 - How can we ensure that the interfaces between the different parts of the regulatory framework for shale gas/oil developments work most effectively?
 - How can MPAs speed up the determination of shale gas/oil planning applications?
-

Logistics

- 30 minutes so 10 minutes on each question
- Capture ideas on flip charts
- Select a spokesperson to report back (3 minutes each group)





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Presentations from Other Regulators

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Q&A Session with Other Regulators

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Break-out session: Planning Performance Agreements for Shale Oil & Gas

In groups of 8-10 people

March 2016



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Planning Performance Agreements

Why PPA is useful for Shale Gas and Oil Applications:

- Government pressure to comply with 16 week determination period
- Enables Regulator involvement
- Provides additional resources
- Front Loading

And why not?

- Public perception



PPA Purpose

- **To provide a project management framework from pre-application through to determination.**



- Committing all parties to an agreed timetable containing ‘milestones’
 - Agree level of resources and actions are required to ensure that all key planning issues are properly considered and resolved
 - Agree level of pre-application input from statutory consultees / regulators
 - Keep it simple
-

PPA Objectives

- To identify key determining issues, and agree steps to resolve them wherever possible;
 - To enable engagement of all statutory consultees at the earliest opportunity and throughout the planning process
 - To agree level of Member involvement;
 - To establish the level and type of engagement of the public at all stages of the planning process;
 - To ensure that all technical issues are fully addressed by the Applicant and fully understood by the MPA;
 - Involve District Councils
 - To identify and address the detailed requirements of any planning conditions and planning obligations which would be necessary, should a planning application be deemed acceptable in principle.
-

PPA Workstreams

- Technical Issues
- Community Engagement
- Member Involvement



Topics for Discussion

- What are the advantages of using a PPA?
- Consider how to manage involvement of statutory consultees / regulators through a PPA
- Can better community engagement be delivered through a PPA?
- Any comments on the PPA Template and User Guide?



Logistics

- 30 minutes so 10 minutes on each question
- Capture ideas on flip charts
- Select a spokesperson to report back (3 minutes each group)





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Summary and Concluding Remarks

Gordon Halliday and Mary Campbell



March 2016

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We need your feedback



This is nice, but not useful

Poor	Fair	Good	Excellent
1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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- We need to know what you think
 - Comments triply welcome
 - We read all of them
 - We use your ideas to change what we do and how we do it
-

Follow-up evaluation

- We employ a company called Arup to follow-up on our work
 - On reflection, was today actually useful ?
 - 10 mins of feedback in return for £100's of support
 - Our board use this to decide what we do with our grant. If we don't get positive feedback we are unlikely to continue
 - There is a list of 'naughty' councils with low response rates!
-

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New event series - Understanding the economic and financial impacts of planning



Come along to our new series of events which look at the direct and indirect financial and economic consequences of planning policy and development decisions. For councillors, senior officers and people with responsibility for finance, regeneration and/or economic development. October and November 2013.

Play 1 2 3 4 5 6

Discussion Forum
We have moved to Knowledge Hub
Find out more

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Monthly newsletter
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Register to receive an alert when we update the material you are interested in

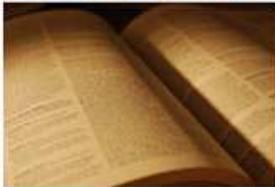
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Planning activity at todays workshop, generating lots of interesting discussion from delegates. [pic.twitter.com/kcldn21DFo](#)
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