

30th January 2014

Agenda Item: 9

**REPORT OF THE CORPORATE DIRECTOR FOR POLICY, PLANNING AND
CORPORATE SERVICES**

**CONSULTATION ON AN ENVIRONMENTAL PERMIT APPLICATION,
DANESHILL ENERGY FOREST, DANESHILL ROAD, LOUND,
NOTTINGHAMSHIRE**

Purpose of the Report

1. To inform Committee of the formal response which was agreed by the Chairman and sent to the Environment Agency (EA) on the 6th January 2014 in response to the request for comments on the consultation for an Environmental Permit Application at Daneshill Energy Forest.

Information and Advice

2. Nottinghamshire County Council (NCC) has been asked for strategic planning observations on the environmental permit application and this report compiles responses from Departments involved in providing comments and observations on such matters. The consultation period ran from the 26th November until the 6th January 2014. In line with the agreed protocol, comments have been sent to the Environment Agency to meet their consultation deadline. These comments were agreed with the Chairman.

Background Information

3. The application site benefits from planning permission for '*Temporary coal bed methane exploration involving the drilling of a borehole and construction of soil bunds*' (Reference 47/09/00006), which was granted on the 28th August 2009. On the 29th November 2012 an extension to time for implementing the existing planning permission was granted for a further 3 years (Reference 1/12/01296/FUL). See location plan attached in Appendix 1.
4. Dart Energy, the applicant, currently holds a Petroleum Exploration and Development Licence (PEDL 200) granted by the Department for Energy and Climate Change (DECC) which authorises the search for petroleum hydrocarbons below ground in the UK.
5. Coal bed methane extraction involves removing methane directly from the seam without actually mining the coal. The industry is most developed in the USA,

whilst in the UK and Europe it remains in its infancy. Dumfries and Galloway Council recommended approval for plans to extract coal bed methane from a site near Canonbie, in Scotland. Interest is developing and it could become a significant energy source for the future. In Nottinghamshire four proposals for the exploration and development of coal bed methane have been granted planning permission. Nearly all of Nottinghamshire overlies a potential coal bed methane resource but the most promising prospects are believed to exist in the eastern half of the County due to the geological formation.

Description of the Proposal

6. The applicant proposes to drill a vertical borehole termed 'Lound 1' to identify and quantify the presence of methane trapped in the coal seams in the strata below ground. The drilling operation is estimated to take 28 days and will involve drilling utilising a closed loop drilling mud system to remove drill cuttings from the borehole, maintain hydrostatic pressure and control the temperature of the drill bit.
7. The planned operations do not include hydraulic fracturing (fracking) and are assessed as a temporary coal bed methane exploration involving the drilling of a borehole and construction of soil bunds.

National Planning Policy Context

8. The National Planning Policy Framework (NPPF) states at paragraph 147 that,

"Mineral planning authorities should...when planning for on-shore and gas development, including unconventional hydrocarbons, clearly distinguish between the three phases of development (exploration, appraisal and production) and address constraints on production and processing within areas that are licensed for oil and gas exploration or production..."

9. Generally national planning policy on energy is positive towards proposals for the extraction of coal bed methane provided that proposals do not have detrimental impacts on the environment.

County Planning Context

Nottinghamshire Minerals Local Plan (2005)

10. The adopted Nottinghamshire Minerals Local Plan (2005) contains Policy M13.4 'Coal Bed Methane Extraction' which supports such proposals provided they are consistent with an overall scheme enabling the full development of the resources and there are no unacceptable impacts. Policy M13.6 'Boreholes – Conflicts with Other Underground Mineral Resources' supports borehole exploration and production providing they do not unreasonably affect other underground mineral resources.

Nottinghamshire Minerals Local Plan Preferred Approach (2013)

11. The County Council, as a Minerals Planning Authority is currently preparing a new Minerals Local Plan. Consultation on the Minerals Local Plan Preferred Approach took place during October – December 2013. The current timetable is that consultation on the Submission Draft of the Plan will take place in May 2014 with submission to the Planning Inspectorate for Examination in August 2014. It is expected that the Examination will take place in December 2014 and formally adopted in March 2015.
12. Draft Policy MP12: Hydrocarbon Minerals supports exploration provided that they do not give rise to any unacceptable impacts on the environment or residential amenity.

Strategic Planning Issues

Minerals Planning

13. The site benefits from a current planning permission for '*Temporary coal bed methane exploration involving the drilling of a borehole*' (See paragraph 3 above), and is consistent with adopted and emerging minerals planning policy.

Highways

14. The Highways Authority does not consider the proposal would have any highway implications. Any highway matters would be addressed at the planning application stage for permissions to drill and extract methane gas. As the proposal already has the benefit of planning permission, no strategic highways objections are raised in relation to this proposal.

Reclamation

15. The site condition report does not identify any significant historical contamination sources which may have impacted the site. There are a number of potential contamination sources in the general area. However the applicants report relies upon the baseline data provided in the soil survey of the UK and concludes there is no requirement for a baseline investigation.
16. There are no arrangements within the proposal for containment of spillage or leakage of drilling fluids, muds or cuttings and produced water apart from the routine monitoring of fluid levels and capacity of the skips and tank, which would prevent the spillage from achieving either the surface soils, surface waters or the underlying aquifer.
17. The risk assessments do not register the storage of drilling fluids, hydraulic oils, and storage of fuels all these give rise to the potential for contamination of the ground and ground waters at the site. It is appreciated that the planning conditions attached with the documentation do refer to such.
18. Whilst the application includes for the use of a closed loop drilling mud system and the contamination risk to the surrounding strata is stated as low. There

appears little or no consideration to the potential for contaminated groundwater within the coal measures or other strata during the exploration appraisal process and its subsequent entrainment at the surface.

19. Any facilities for the storage of oils, fuels or chemicals should be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%.
20. All filling points, vents, gauges and sight glasses must be located within the bund. The drainage system of the bund should be sealed with no discharge to any watercourse, land or underground strata. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets should be detailed to discharge downwards into the bund.
21. All wastes generated from the drilling operations including general wastes, formation cuttings, produced waters and waste waters shall be stored appropriately within the site and removed from the site to a licensed disposal facility. No wastes shall be stored as to allow ground or surface water to become contaminated by oil, grease or other pollutants used on or in connection with the site operations and there shall be no discharge into any ditch or watercourse.
22. Detailed Reclamation comments are set out in Appendix 2.

Overall Conclusions

23. The County Council does not wish to raise any objections to the proposal from a minerals planning perspective.
24. The County Council does not consider the proposal would have any highway implications.
25. In terms of reclamation, concerns are raised in relation to the potential for contamination in the area and the lack of arrangements for spillage/leakages. Concerns are also raised over the potential for contaminated groundwater within the coal measures or other strata during the exploration appraisal process and its subsequent entrainment at the surface.

Other Options Considered

26. As the consultation requires representations to be made on the proposal the only other option was not to make representations which would have implications for Nottinghamshire County Council's role as a Minerals and Waste Planning Authority.

Reason for Recommendation

27. Having assessed the proposal the County Council does not wish to object to the proposal, however, raises concerns over the potential for contaminated groundwater within the coal measures or other strata during the exploration appraisal process and its subsequent entrainment at the surface.

Statutory and Policy Implications

28. This report has been compiled after consideration of implications in respect of finance, the public sector equality duty, human resources, crime and disorder, human rights, the safeguarding of children, sustainability and the environment and those using the service and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

Financial Implications

29. There are no direct financial implications.

Implications for Sustainability and the Environment

30. The minerals planning interests of the County Council could be compromised if the proposal is not adequately addressed.

RECOMMENDATION

1) That Committee note the officer response approved by the Chairman which was sent to the Environment Agency on the 6th January 2014.

Jayne Francis-Ward

Corporate Director, Policy, Planning and Corporate Services

For any enquiries about this report please contact: Nina Wilson, Principal Planning Officer, Planning Policy Team, 0115 97 73793

Constitutional Comments (NAB 19.12.13)

31. The Environment and Sustainability Committee has authority to consider the recommendation set out in this report by virtue of its terms of reference.

Financial Comments (SEM 19/12/13)

32. There are no specific financial implications arising directly from this report.

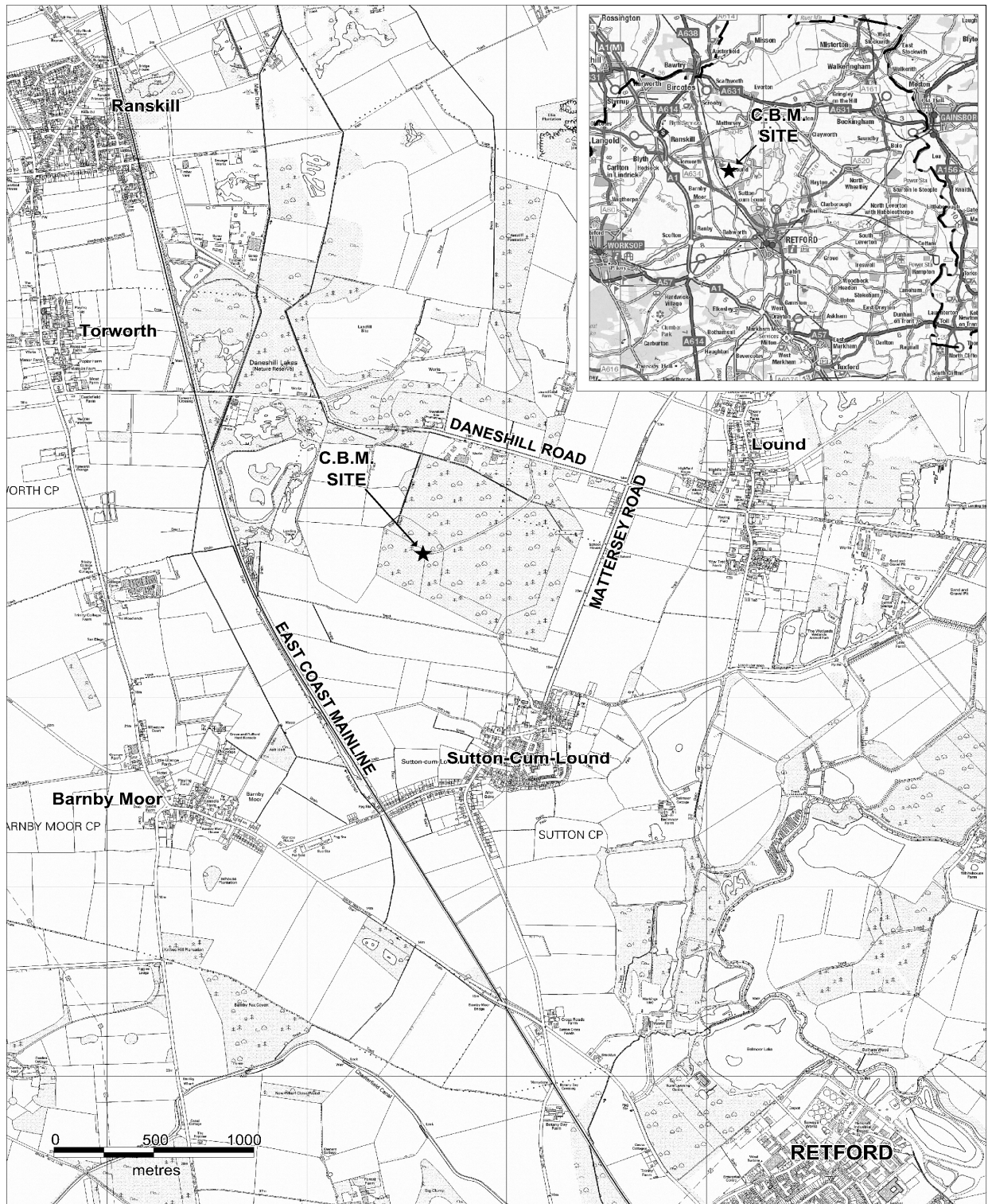
Background Papers and Published Documents


Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

Electoral Division and Member Affected

Blyth and Harworth – Councillor Shelia Place
Misterton – Councillor Liz Yates
Retford East – Councillor Pam Skelding
Retford West – Councillor Ian Campbell
Tuxford – Councillor John Ogle
Worksop North East and Carlton – Councillor Alan Rhodes

Appendix 1 - Site Location Plan



 <p>Nottinghamshire County Council</p>	<p>CONSULTATION ON AN ENVIRONMENTAL PERMIT APPLICATION, DANESHILL ENERGY FOREST, DANESHILL ROAD, LOUND, NOTTINGHAMSHIRE.</p> <p><small>This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. (1000019713) (2014)</small></p>	<p>N W —+— E S</p> <p>Scale 1:25,000 Produced by: JW Date: MARCH 2014</p>
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Appendix 2 – Detailed Reclamation Comments

1. Existing Site:

The site is currently in agricultural use as farmland, with surrounding areas of forestry. The remote landscape is undulating in character with the site, relatively flat, at approximately 12m AOD, rising to approximately 20m to 40m AOD around Barnby Moor to the southwest and Babworth to the south. To the east it rises to approximately 60m AOD between the villages of Hatton and North Wheatley.

The site is currently in agricultural grassland and the western and southern field boundaries are bordered by clusters of recently planted saplings. Neighbouring fields are generally large with wider field boundaries defined by existing and remnant hedge planting. Most of the existing and remnant hedgerows contain mature deciduous woodland trees.

Other key features within the landscape include a traveller's site, a breakers yard and a stone merchant, all of which are located along Daneshill Road approximately 500 m to 700 m north of the proposed site. There is also a culvert under the access track and drainage ditch to the east of the site.

There are no residential properties within 900m of the proposed site. Daneshill Lake is a large wetland area located 650m west of the site, bordered to the west by the East Coast Railway Line

2. Proposals:

The application is for the construction of “an unconventional Coal Bed Methane (CBM) appraisal borehole. The borehole will penetrate to the Pennine Middle Coal measures, to a depth of approximately 920m. The borehole will be formed using a HH102 drilling rig unit, the process will utilise a closed loop drilling fluid to remove the drill cutting and control the drill head environment. Arisings from the drilling process will be treated on site through the separation process, waste solids to skips for onward offsite disposal and liquids to be reused or tankered offsite.

3. Land Contamination Impacts:

The proposed borehole penetrates to the Pennine Middle Coal Measures through the Nottingham Castle Sandstone formation. The sandstone is regarded as a principal bedrock aquifer, furthermore the soils of the site are considered to be of high leaching potential, whilst the site itself is located with zone III of the groundwater source protection zone. The implication of the geology is that there exists a risk to groundwater quality from activities such as the formation of the appraisal borehole and associated site and support works.

Whilst the borehole formation will use a closed loop system to manage the drilling fluids, there still remains the fact that the borehole will penetrate the coal measures and any groundwaters contained within them or waters introduced into the strata and discharged at surface “produced waters will contain a range of contaminants (PAHs

and heavy metals plus others) which will require treatment within the drilling system. This issue will be more pertinent if /when the borehole/site is deemed viable to produce coal bed methane.

The leakage from skips and container integrity and leakage through the Durabase are identified within the risk management tables and these tables identify the receptors as surface water, soil, groundwater and localised flooding. Mitigation measures are identified as a surrounding drainage ditch to take flood waters to designated “soakaway area”. This is not identified on the plan and the process would appear to contravene the aim of preventing the ingress of waste materials /fluids to what has been identified as soils of high leaching potential, the underlying aquifer and a culvert which lies to the east of the site.

There are groundwater water protection issues to be addressed both during and subsequent to the investigation, and these would fall under the remit of the Environment Agency. The borehole penetrates a principal groundwater aquifer for the region, additionally at the end of the exploration period the borehole is to be decommissioned, this would need to be verified (as is proposed in the documentation) and would remain a potential source/ pathway for contamination of the aquifer.

5. Conclusions and Recommendations:

The site condition report does not identify any significant historical contamination sources which may have impacted the site. There are a number of potential contamination sources in the general area. However Dart Energy report relies upon the baseline data provided in the soil survey of the UK and conclude there is no requirement for a baseline investigation.

There are no arrangements within the proposal for containment of spillage or leakage of drilling fluids, muds or cuttings and produced water apart from the routine monitoring of fluid levels and capacity of the skips and tank, which would prevent the spillage from achieving either the surface soils, surface waters or the underlying aquifer.

The risk assessments do not register the storage of drilling fluids, hydraulic oils, and storage of fuels all these give rise to the potential for contamination of the ground and ground waters at the site. It is appreciated that the planning conditions attached with the documentation do refer to such.

Whilst the application includes for the use of a closed loop drilling mud system and the contamination risk to the surrounding strata is stated as low. There appears little or no consideration to the potential for contaminated groundwater within the coal measures or other strata during the exploration appraisal process and its subsequent entrainment at the surface.

Any facilities for the storage of oils, fuels or chemicals should be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be at least equivalent to the capacity of the tank plus 10%. If there

is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%.

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The Pollution Prevention Guideline series of documents prepared by the Environment Agency should be consulted and integrated within the environmental management plan for the site, the following non exhaustive list is provided for reference

- Above ground oil storage tanks: PPG 2
- The safe operation of refuelling facilities: PPG 7
- Safe Storage and disposal of used oils: PPG8
- Incident Response Planning: PPG 21

If you require clarification on any of the above points, please do not hesitate to contact me.

Derek Hair

Principal Project Engineer
Landscape and Reclamation Team