

**DERBYSHIRE COUNTY COUNCIL**

**REGULATORY – PLANNING COMMITTEE**

**5 February 2018**

Report of the Strategic Director – Economy, Transport and Environment

- 1 APPEAL ON APPLICATION FOR PLANNING PERMISSION FOR CONSTRUCTION OF A WELL SITE AND CREATION OF A NEW ACCESS TRACK, MOBILISATION OF DRILLING, ANCILLARY EQUIPMENT AND CONTRACTOR WELFARE FACILITIES TO DRILL A VERTICAL HYDROCARBON EXPLORATORY CORE WELL AND MOBILISATION OF WORKOVER RIG, LISTENING WELL OPERATIONS, AND RETENTION OF THE SITE AND WELLHEAD ASSEMBLY GEAR FOR A TEMPORARY PERIOD OF FIVE YEARS ON LAND ADJACENT TO BRAMLEYMOOR LANE, NEAR MARSH LANE**  
**APPELLANT: INEOS UPSTREAM LIMITED**  
**APPLICATION CODE NO: CM4/0517/10**

**4.2509.3**

**Introductory Summary**

This is a proposal to drill a vertical core well to a depth of 2,400 metres (m) for hydrocarbon exploration on agricultural land at Bramley Moor Lane, Marsh Lane, Derbyshire. This application seeks permission for the drilling, suspension, decommissioning and restoration of the well, including use as a possible listening well. Core samples of the target geological formation (the shale rock layer) would be recovered and removed from site and tested for the potential to produce hydrocarbons (specifically shale gas). The proposal does not involve hydraulic fracturing. The whole development would take place over a temporary period of five years and would be carried out in five stages. The drilling and coring operations (Stage 2) would take place 24 hours a day for 3 months. On completion of the operations the site would be restored back to agricultural use.

The proposal, in principle, is supported by the National Planning Policy Framework (NPPF) and Government's Energy Policy. The site is located in open countryside and the North East Derbyshire Green Belt, however, the proposal is not considered to be inappropriate development in this location. The potential environmental impacts of the development have been assessed and it is not considered that there would be any conflict with development plan policy or any impacts that would warrant an objection to a grant of permission provided that a comprehensive set of measures to control and limit the impacts are imposed.

The applicant has made an appeal to the Secretary of State against non-determination of the above application to the Council for planning permission, which is to be determined by a Planning Inspector following a public inquiry. The relevant planning considerations include NPPF, and policies from the Derby and Derbyshire Minerals Local Plan (DDMLP) and the North East Derbyshire Local Plan (NEDLP). Having regard to the planning considerations referred to in the report, it is recommended that the Committee resolves to authorise the presentation of a case on behalf of the Council for the appeal which is based on a considered need to secure certain essential requirements and limitations by condition or legal agreement if planning permission is to be granted on appeal.

(1) **Purpose of Report** For the Committee, to authorise the Strategic Director to arrange to present a case on behalf of the County Council, as Mineral Planning Authority (MPA), concerning the development proposed by the above application, for the appeal which the applicant has made under Section 78 of the Town and Country Planning Act 1990 against the non-determination of the application.

(2) **Information and Analysis**

### **The Site and Surroundings**

The application is located in a rural area occupying part of an agricultural field off Bramblemoor Lane, Marsh Lane, Derbyshire. The site is approximately 4 kilometres (km) from the town of Dronfield to the west and 7km from Chesterfield to the south-west. The application site is broadly rectangular in shape and has a surface area of 1.84 hectares (ha), including the proposed access track. The site is within the administrative area of North East Derbyshire District Council (NEDDC). It is located to the south of the B6056 highway, Ten Acres Farm and Ten Acres Bungalow which sit at the junction with the B6056 and Bramblemoor Lane. To the north and north-east lie the villages of Bramble Moor and Marsh Lane. To the west is Heatherlee Farm, to the east is Bramblemoor Lane with properties off Bramble Road and Ridge Road and Handley Rose Nursery lies further east. To the south are other agricultural fields down to Morton Lane and West Handley. The site is bound by hedgerows to the eastern and western boundaries, there is further hedgerow 45 metres (m) to the south of the site and a derelict farm building to the north. The nearest residential properties are Ten Acres Farm approximately 300m to the north-east, Heatherlee Farm 320m to the west and the properties in Marsh Lane 370m to the north-east.

The Moss Valley Conservation Area is located directly to the north of site; the southern boundary of the conservation area borders Main Road (B6056). This area is also designated as a Special Landscape Area (SLA) on the NEDDC Local Plan Proposals Map. The West Handley Conservation Area lies approximately 500m to the south. There are a number of listed buildings located in West Handley to the south, which includes a collection of former

agricultural buildings at Ash Lane Farm approximately 500m to the south which are all Grade II listed and the Grade II\* Handley Hall which is approximately 735m to the south. Moortop Farmhouse, which is Grade II listed, is located approximately 860m to the west.

The site is not located within any landscape or ecological designations but does lie within the North East Derbyshire Green Belt as identified in the NEDLP. It is also located within a Site of Special Scientific Interest Impact Risk Zone (SSSI IRZ). The closest SSSIs are Moss Valley, Moss Valley Meadows and Moss Valley Woods located approximately 2km to the north-east and north-west. There are a number of Local Wildlife Sites (LWSs) in the vicinity of the site, Light Wood, Wade Wood, Turner Springs Wood and Handley Village Pond LWSs are located between 500m to 900m to the east of the site, Stubbing Wood and Binkley Wood LWSs are located approximately 1km to the south.

The site is located in flood zone 1 and is not within a Groundwater Source Protection Zone. The nearest surface watercourses are a tributary of the River Rother 750m to the south-west and a tributary of the River Moss 850m to the north-west. There are no public rights of way (PROW) across the site; there is a footpath (Eckington FP77) approximately 265m to the east of the site. There is an historic borehole that was drilled for oil and gas exploration close to the site's northern boundary that was completed in 1987 and there is a mine shaft located close to the eastern boundary of the site.

The site is located within a Petroleum Exploration and Development Licence (PEDL) area, PEDL300, awarded to INEOS by the Department for Business, Energy and Industrial Strategy (BEIS).

### **The Proposed Development**

The proposal is to drill a vertical core well at the site to a depth of 2,400m for hydrocarbon exploration. Cores of the target geological formation (the shale rock layer) would be recovered, the core samples would be removed from site and tested for the potential to produce hydrocarbons (specifically shale gas). Once the well had been drilled and cored it would be suspended for a period of time, and potentially used as a 'listening well' during the development of other sites in the area. Access to the site would be from the B6056 Main Road. The development would take place over a period of five years. It also requires a range of consents from other regulators. This application seeks permission for the drilling, suspension, decommissioning and restoration of the well, including use as a possible listening well. The proposal does not include any production, either on an appraisal or a commercial basis nor does it involve any hydraulic fracturing, commonly known as "fracking". Any other substantial development at the site would require a separate application for planning permission.

The geological objectives of the core well are stated in the application as being to:

- Gather information on depth, sedimentology and thickness of prospective section;
- Gather information to correlate with 2D and 3D seismic data;
- Identify potential target zones;
- Gather geochemical information (Total Organic Content, mineralogy, gas composition, matrix composition, maturity);
- Allow geomechanical analysis on core (stress, brittleness, fracture analysis, fracture barriers);
- Gather information on gas content (absorption, desorption, free gas) and storage capacity; and
- Assess porosity/ permeability characteristics and seismic velocities.

The proposed development would be carried out in five stages. The overall development would have a duration of five years following which the site would be restored back to agriculture. Each stage would be of limited duration; and there would be periods when no activity would be taking place at the site.

#### Stage 1 - Site Development and Establishment.

Stage 1 would take approximately three months and would involve the following:

- Any necessary pre-commencement surveys, including geotechnical surveys, site investigation surveys, road construction surveys and environmental surveys.
- Fencing of the construction compound with 2m high Heras fencing, construction equipment would also be brought to site.
- Development of the bellmouth, access track and parking. A section of the hedge at the site entrance point (approximately 36m) would be removed and the adjacent hedgerow would be trimmed to 1m in height to provide sightlines. The access track and parking area would be lined with a geotextile membrane and covered with aggregate. A dry wheel wash would also be installed.
- The site would be cleared of vegetation and hedges trimmed, topsoil/ subsoil would be removed and a level site surface created. Soils would be stored in bunds up to 3.5m high around perimeter of site. A hardstanding area approximately 25m by 17m would be created in the centre of the site.
- Construction plant, including generators, site offices, water tanks, welfare cabins and stores would be brought to the site.
- A well cellar would be excavated to form a containment area from which the well would be drilled. The cellar would be constructed from a

reinforced concrete ring approximately 2.5m diameter and up to 4.5m deep.

- An impermeable geotextile and high density polyethylene (HDPE) liner would be laid over the site area.
- Site drainage would be installed. A perimeter water storage pipe would be laid, the storage pipe and catch pit would be corrugated HDPE in a concrete surround, underlain by the site liner. Surface water run-off from the site would be collected in the catch pit and perimeter pipe and pumped into a double skinned surface water storage tank for removal off-site.
- The site surfaced using aggregate and a concrete pad for the drill rig would be formed in the hardstanding area surrounding the sealed well cellar.
- Site accommodation would be installed, cabins would be stacked on top of each other (up to two high) and placed at the perimeter of the site.
- Soils bunds would be covered with a grass seeded geotextile membrane, security measures and lighting installed around site. Construction equipment would be demobilised in preparation for mobilising main drilling rig and equipment.

During Stage 1, groundwater monitoring boreholes would be installed, in liaison with the Environment Agency (EA), but since those operations generally have planning permission through the General Permitted Development Order as “permitted development”, they have not been included in the application.

Working hours for Stage 1 are stated as being 0700 hours to 1900 hours Mondays to Fridays and 0700 hours to 1300 hours on Saturdays with no working on Sundays or Bank/Public holidays unless in an emergency or otherwise agreed with the MPA.

## Stage 2 – Drilling, Coring and Suspension

Stage 2 would also take approximately three months to complete. During this phase the drill rig and associated equipment would be brought to the site by road and assembled on site, including temporary lighting (up to 9m in height).

A well would be drilled to a depth of approximately 2,400m, the drill rig would be up to 60m in height. Cores of the target formations and sidewall cores would be removed and the well would be logged during drilling. The cores would be sent off site for laboratory analysis. No flow testing would be undertaken. Drilling operations would be carried out 24 hours a day for approximately 10 weeks. Waste from the drilling and coring, such as drilling cuttings and muds would be removed off-site. A steel casing would be inserted into the hole to separate the hole from the surrounding rock and

ground water. Cement would be pumped into the space between the outside of this casing and the rock to create a seal and provide stability.

Following completion of the drilling, coring and necessary logging, the well would be suspended, this would take approximately 2 to 3 days. The suspended well would be protected by a steel wellhead protection cage.

The drill rig, ancillary equipment, waste and cabins, would be removed from site. The gatehouse and an office welfare unit would be retained for staff use during subsequent stages.

Working hours for Stage 2, with the exception of drilling (which would be carried out 24 hours a day), are stated as being 0700 hours – 1900 hours Mondays to Fridays and 0700 to 1300 on Saturdays with no working on Sundays or Bank/Public holidays unless in an emergency or otherwise agreed with the MPA.

### Stage 3 – Maintenance of the Suspended Well Site

During this stage, personnel of the developer would visit the site to carry out maintenance, environmental monitoring, removal of water from the drainage system and any foul drainage and to inspect the wellhead. Visits would be carried out at various frequencies throughout a year, daily visits by security personnel would be made if required. These site visits would continue for the remaining duration of the planning permission. Hours of working during this stage would be the same as for Stage 1.

### Stage 3a – Possible Workover of the Suspended Well

There may be a requirement to bring a workover rig back on to site for well maintenance, this would not modify the well for any other purpose. The drill for this requirement would be a maximum of 32m high and could be on site for up to a month. The applicant is not proposing any night time or weekend working during workovers unless it was agreed with the MPA or in an emergency. Double stacked cabins to provide screening, lighting, generators and other equipment would also be brought on to the site. The hours of working proposed for this stage are as in Stage 1, however, there would be personnel on site 24 hours a day.

### Stage 4 – Use of the Well as a Listening Well

Activities under Stage 4 would only take place to undertake baseline monitoring or monitoring relating to any hydraulic fracturing from any well elsewhere. All relevant consents for any such separate site would need to be granted in such a timescale so as to coincide with any consent that may be granted for the development proposals at the site under consideration here. Activities during Stage 4 would include the mobilisation of a workover rig up to

35m high, a 30 tonne crane up to 35m high and other plant and facilities (listening truck, generators, welfare, storage etc) or alternately a wireline truck, crane and an elevated work platform could be mobilised. A string of geophones on the wireline inside the reservoir casing would then be installed for the duration of the listening operations. No chemicals would be introduced into the well during this stage. On completion of the listening operations, the site would be demobilised. Activities during this stage, if undertaken, would take approximately 3 weeks.

The proposed hours of operation during this stage are 0700 hours to 1900 hours Mondays to Fridays with no working at weekends, bank or other public holidays. If a workover rig is used personnel would be on site 24 hours a day to maintain rig safety.

### Stage 5 – Abandonment (Decommissioning) and Restoration

Stage 5 would take approximately two months and would involve the following:

- Mobilisation of plant and equipment to the site, including cabins for screening purposes. A 32m high drill rig would also be required for a short period.
- Decommissioning of the well. The wellhead would be removed and the casing and cement cut to 2m below ground level to allow restoration to agriculture.
- Removal of residual site equipment, site surfacing, concrete pad and cellar, aggregate and drainage. Any potentially contaminated equipment would be removed from site prior to removal of impermeable geotextile /HDPE lining.
- Soils stored in perimeter bunds would be used to restore the sites surface. Field drainage would be redeveloped if required. The site would be reseeded and prepared for aftercare as agricultural land.
- The access track would be restored or retained subject to any necessary further consent. Any fences or gates removed would be replaced and the section of hedge to create the access would be replanted.
- Aftercare of the site would be undertaken in accordance with an aftercare plan to be agreed with the MPA.

Decommissioning of the well would be carried out 24 hours a day. Site restoration operations would be carried out 0700 hours - 1900 hours Mondays to Fridays and 0700 hours to 1300 hours on Saturdays with no working on Sundays or Bank/Public holidays unless in an emergency or agreed otherwise with the MPA.

### Traffic Movements

The indicative maximum traffic movements per day that would be generated by the proposal per stage are set out in the Environmental Report submitted with the application in table 3-4, which is reproduced below. A movement is considered as being either an inbound or outbound trip.

Stage	Activity	Duration	Daily Vehicle Movements (all vehicles)	Light Vehicles (<7.5 tonnes)	HGVs
1	Site development and establishment	11 weeks	70	10	60
2	Drilling and coring	12 weeks	60	14	46
3	Maintenance of site	Annual figures	32 (annual figures)	26	6
3a	Possible workover of the well	2 weeks	60	8	52
4	Use of well as listening well	3 weeks	56	8	48
5	Decommissioning and restoration	6 weeks	62	8	54

The proposal would generate a number of abnormal loads to the site, during Stage 1 there would be up to 14 abnormal load movements per day, 6 movements in Stage 2, 2 movements in Stage 3a, 2 movements in Stage 4 and 3 movements in Stage 5. These abnormal load movements are included in the total daily vehicle movements in the table above.

The proposed route for vehicles to and from the site is via a 22km route from the M1 motorway at junction 31. Vehicles would travel approximately 17km on the trunk road network (A57 and/or A630, A6102) between the M1 and Norton. The remaining 6km of the route would be on the B6057 Jordanthorpe Parkway and the B6056 Eckington Road and Snowden Lane.

### Lighting

The site would be lit by artificial lighting for operational and security purposes. The applicant states that the 'worst case' for artificial lighting would be during Stage 2 due to the 24 hour nature of the drilling operations; lighting would be required during all hours of darkness for the three month period of operations in this stage. The lighting would comprise of moveable lighting columns to light the operational area up to 9m high, wall mounted downlights to the welfare and storage cabins, and lighting to the drill rig. CCTV security cameras are also proposed to be installed.



## **Environmental Impact Assessment**

As requested by the applicant, the Authority provided a screening opinion for the proposed development before the submission of the planning application (screening opinion code no. SCRM/4/116), in accordance with the Town and Country Planning (Environmental Impact Assessment) (EIA) Regulations 2011. The Authority's decision was that the development would not be EIA development and so an Environmental Statement would not be required. The applicant and others subsequently sought a screening direction from the Secretary of State under the 2011 Regulations. The Secretary of State also found that the proposal was not EIA development.

The applicant, however, provided with the application an Environmental Report that provided environmental information on the following topics; noise, transport and traffic, ecology, landscape and visual impact, surface water and flooding, hydrogeology, archaeology and cultural heritage, emissions to air, climate change and human health. The applicant has subsequently provided further and additional information relating to noise (including a noise management plan), hedgerows, breeding birds and lighting.

## **Appeal Submission**

In December 2017, the applicant made an appeal to the Secretary of State in respect of Derbyshire County Council not having reached a decision on this application (reference no. APP/U1050/W/17/3190838). The applicant has submitted for the appeal a statement of case in support of permission being granted (subject to conditions) on appeal, and supporting documents. The statement will be addressed by officers in responding to the appeal.

## **Consultations**

There have been two rounds of consultations in relation to this proposal; one was carried out on the originally submitted application on 25 May 2017, and one following receipt of further information on 14 November 2017. The responses that have been received are detailed below.

## **Local Members (Eckington and Killamarsh)**

Councillor Ridgway has been notified.

Councillor Charles is concerned about the following:

- Disruption to residents, including the proximity of the site to residential areas, noise and air pollution.
- The length of time proposed.
- Traffic management and the movement of HGVs.
- The environmental impact, both whilst works are being carried out and in the longer term.

Councillor Charles believes this site is not suitable for the proposed development.

**Local Member Adjacent Ward (Dronfield East)**

Councillor Dale has been notified.

**North East Derbyshire District Council (NEDDC) – Planning Comments**

NEDDC objects to the proposal on the following grounds:

- “A. Extra vehicles on the road will increase pollution and cause major disruption along the planned route.*
- B. The use of generators will also add to increased air pollution and further pollution will be caused by the release of dust into the air. There may be accidental methane leakage. All these issues will affect the air quality in the area, including the residential village of Marsh Lane.*
- C. Animals, birds and other wildlife could also be affected.*
- D. There will be serious traffic congestion along the proposed route, especially in the village of Coal Aston, which is structurally not able to take the increased heavy traffic that will visit the site to construct the well. This also applies to the narrow winding Snowden Lane.”*

It also pointed out that, as of 31 October 2016, NEDDC opposes fracking within North East Derbyshire.

**Bolsover District Council**

Upon initial consultation, Bolsover District Council commented that it did not believe that there would be any significant transport issues for its district, save for the traffic passing through to the M1.

When consulted a second time, the District Council Officer commented:

*“It remains my view that the proposals do not give rise to any particular social or economic benefits to Bolsover District but this Council would not wish to comment further on the planning merits of this application taking into account the proposed route for construction traffic does not pass through Bolsover District and taking into account the distance between the application site and this District's administrative boundary.”*

**Sheffield City Council**

Sheffield City Council considers the main implications for Sheffield relate to HGV traffic, highlighting that the majority of the proposed prescribed route for this would be within its administrative area. Its response reviews the analysis of the numbers of HGV movements and it comments that *‘the maximum percentage increase over the baseline for the part of the route that is in Sheffield is 1%’*. Therefore, the effect on Sheffield's highways is considered to be negligible. This conclusion is provided on the understanding that the key impacts are for limited periods of time due to the stages they are related to,

and that the average daily movements will be much lower than the figures given, as per the applicant's supporting text.

The City Council emphasises that the Draft Traffic Management Plan and the Route Management Strategy are in the early stages of development. The City Council request that the applicant avoids HGV movement in the peak hour and school drop-off and pick up times in its plans, and that they are a party to the final agreed documents.

### **NEDDC and Bolsover District Council Joint Environmental Health Service (JEHS)**

In response to the first consultation on the application, the JEHS made the following comments:

*"With respect to lighting the application is supported by a plan labelled P300-S1-PA-10 Rev D (dated 01.03.17) Proposed Lighting Plan for Stage 2 Drilling, Coring and Suspension and Section 5 of the Environmental Report makes reference to additional low intensity fluorescent lighting on the drilling rig. However, there has not been an assessment of the potential impacts (if any) on nearby properties particularly during Stage 2 when it is assumed lighting will be required during the night at height on the drilling rig. We would expect any assessment to pay due regard to good practice guidance."*

The JEHS advised that a condition be applied, should permission be granted, to require external lighting to be planned and approved alongside the 'Guidance Notes for the Reduction of Obtrusive Light' from the Institution of Lighting Professionals prior to the commencement of work.

In respect of land contamination, the JEHS specify what it believes to be the main risks but stipulates that any concerns should be discussed with and environmental permit obtained from the EA. The EA will control any concerns relating to land or controlled water contamination.

The JEHS reiterated the information in the applicant's reports on air quality, and also recommends a condition relating to a Dust Management Plan. The JEHS believe that dust generation is especially likely during Stage 1 of the proposals.

Regarding air quality, they also make the following comments:

*"The proposed drilling and coring is considered by the applicant to have very limited potential for release of methane to atmosphere. We understand there is no proposal for the flaring of methane emissions. Given the nature of the proposed operation and the underlying geology the potential for methane emissions exist and it is our understanding the potential releases are likely to be small during the exploratory phase and will be monitored by the Environment Agency."*

Finally, the JEHS comments on the potential sound impacts of the development. As part of the application, a noise assessment examining the potential impacts during stages 1 and 2 (construction, drilling and coring) was carried out and identified a number of noise sensitive properties. The JEHS summarise the assessment's conclusions as:

- *“sound from the construction operations is not expected to exceed the assessment criteria and although it may be audible at times it is expected to result in negligible noise impacts;*
- *impacts from traffic noise during the construction phase are likely to be imperceptible; and*
- *the drilling and coring activities are expected to be below the respective Planning Policy Guidance – Minerals (PPG-M) noise limits for daytime, evening and night-time noise.”*

The assessment concludes that there will be no significant adverse effects to local residents' quality of life.

The JEHS then give a summary of its own findings, as follows:

*“Having reviewed the submitted report and undertaken some further research our primary concern relates to the consideration of night-time noise during the drilling and coring works (Stage 2). We have concerns regarding the reliance on the night-time noise limit of 42dB(A) LAeq,1hr (free field) referred to in the PPG-M as the limit to be achieved at a noise sensitive property in this location due to the low background levels. Whilst it could be argued nearby noise sensitive receptors may not be woken by site noise at the above limit it is likely the annoyance caused by the drilling noise may prevent getting to sleep in the first place and getting back to sleep if woken because the drilling noise will be more audible when background levels are low. It is our view the applicant has not considered the need to reduce to a minimum adverse impacts as required by the PPG-M rather relied on the upper limit of 42dB(A) LAeq,1hr (free field) as acceptable.*

*We recognise the night time noise limit in the PPG-M does not explicitly provide for a comparison with background (unlike the day and evening limits) but it is our view this is the logical way it must be understood. The PPG-M makes reference to the fact night noise limits should be set to reduce to a minimum any adverse impacts, without imposing unreasonable burdens on the mineral operator. Although the consideration of what might constitute unreasonable burden is not within our remit there is no discussion on this aspect within the report. In the first instance we would consider a night-time limit of no more than 10dB above the background (LA90) 25dB to be acceptable in order to control adverse impacts on the nearby noise sensitive properties. We would welcome discussion with the Planning Authority and the applicant on this aspect.”*

The JEHS also provides detailed comments on noise which are given below:

*“The potentially most significant sources of impact are identified as noise from the operation of the drilling rig (which will operate 24 hours per day during Stage 2) and potential short term impacts from the construction of the site.*

*The assessment methodology adopted by INEOS appears primarily to consider the noise limits contained in the PPG-M to be acceptable assessment criteria. Hence, the assessment considers the limit that should be set by planning condition for night time noise is 42 dB(A). Presumably, the underpinning assumption is that compliance with these noise limits is adequate to conclude the sound emissions will not have an adverse impact on the quality of life or sleep disturbance.*

*We would be in general agreement with the selection of the noise sensitive receptors (NSR) although some consideration of topography would assist with visualisation of the receptor locations for those not familiar with the area. However, the noise monitoring locations were not located at the noise sensitive properties, rather monitoring was undertaken at the locations indicated in Figure 2-1 of the Environmental Report. We note there is no monitoring location in the vicinity of NSR3 and whilst this is located in a more isolated area where background sound levels would typically be lower than at the selected monitoring locations it is closer to the B6056 which is a main road which on balance is likely to counteract the expected low background levels.*

*The proposed site is located in a rural area where the daytime ambient acoustic environment is influenced predominantly by traffic on the B6056 with intermittent and infrequent traffic on Bramley Moor Lane. This is consistent with the description provided in Section 2.3.2 which also indicates the night time acoustic environment comprises constant but faint traffic noise to the west with occasional traffic on the B6056.*

*Although the meteorological conditions during the monitoring period are provided there is no discussion of the prevailing conditions in the vicinity of the site and the potential impact on the conclusions drawn.*

*Our main concerns relate to the night-time noise associated with the drilling and coring operation which will need to operate on a 24hour basis for an approximate period of 3 months. The baseline data presented in the Figure 3-1 of Appendix 2-1 of the Environmental Report would appear to be reasonable and as we would expect in terms of the background and ambient levels. Typically the night-time background levels (LA90) were in the region of mid to low 20s which is about 20 decibels below the predicted noise impact and in an area of tranquillity such as this would be considered significant. From the visual representation a representative background of 25dB(A) could be considered reasonable. In addition, Figure 3-1 indicates the ambient levels (LAeq) during the night are well below 42dB.*

*Relevant Planning Appeals: There have been a number of planning applications for similar proposals to the one under consideration here across the UK recently. Some of these applications have gone to appeal (under Section 78 of the Town and Country Planning Act 1990 as amended by the Planning and Compensation Act 1991) including the sites near Preston in Lancashire where appeals were submitted by Cuadrilla Bowland Ltd and Cuadrilla Elswick Ltd against the decisions of Lancashire County Council (Appeal References: APP/Q2371/W/15/3134386, APP/Q2371/W/15/3130923, APP/Q2371/W/15/3134385 and APP/Q2371/W/15/3130924). In her report (dated 4 July 2016) to the Secretary of State the Planning Inspector considered a range of issues, including potential noise impacts. Whilst we acknowledge that every case should be considered on its own merits and although the detail of the Lancashire applications may be different to the current application we would consider there are similarities thus we have considered the findings of the Planning Inspector in providing our response. We have summarised in the table below our interpretation of the key issues relating to noise in the Preston New Road Site case.”*

The JEHS provided the following table as a summary of noise related aspects of the Preston New Road Site Appeal.

<p><b>Appellant view</b>  <i>The appellant considered</i></p> <ul style="list-style-type: none"> <li><i>the night-time Lowest Observed Adverse Effect Level (LOAEL) to be 42dBLAeq, 1hr (free field) and provided this level was not exceeded, then no adverse effects in the form of sleep disturbance would occur;</i></li> <li><i>the limit that should be set by planning condition for night-time noise is 42dBA</i></li> </ul>	<p><b>MPA view</b>  <i>The MPA considered</i></p> <ul style="list-style-type: none"> <li><i>neither a limit of 42dBA or 39dBA would reduce to a minimum adverse night-time impacts on local residents;</i></li> <li><i>inadequate information had been put forward by the appellant that an unreasonable burden would be placed upon it at a level of either 42dBA or 39dBA;</i></li> <li><i>an appropriate LOAEL to be 35dBA</i></li> </ul>
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**Planning Inspector view**

- reference to adverse effects in PPG-M must refer to significant impacts and other adverse impacts;
- adverse impacts cease to arise only below the threshold of the LOAEL;
- the upper limit or ceiling of 42dBLAeq, 1hr (free field) cannot be regarded as representing a LOAEL and the wording of PPG-M reflects the assumption that in principle, adverse effects can occur below that limit otherwise the requirement to reduce to a minimum below that level would not have been imposed;
- WHO-Night Noise Guidelines for Europe (NNG) provide the most recent WHO guidelines in respect of night-time noise and although the evidence base focussed on transportation noise it remains highly relevant and a material consideration in the appeal. WHO-NNG recommends LOAEL is set at 40dB L<sub>night</sub>, outside but the site specific circumstances of each case must be considered;
- logical to equate the minimum adverse impact with the LOAEL not being exceeded;
- concluded unable to view the 42dBLAeq, 1hr (free field) advocated by the appellant as being an appropriate level to set a LOAEL in this case;
- factors in the case would support a lower threshold for the level of noise exposure above the WHO-NNG recommended LOAEL of 40dB;
- 35dB is likely to represent the lowest point at which observed adverse effects would occur;
- after consideration of 'unreasonable burden' an appropriate night-time noise limit 39dB LAeq, 1hr (free field) was considered appropriate at the Preston New Road Site;
- conditions aiming to control prominent tones or impulses and an overall maximum limit for night-time noise were also set.

**Secretary of State view**

- agrees with the Inspector that PPG-M does not support the view that 42dB LAeq, 1hr (free field) should be regarded as the LOAEL in this case;
- agrees in this case the various noise conditions in combination with a limit of 39dB LAeq, 1hr (free field) would satisfactorily control adverse noise impacts during the night;
- at this limit no significant adverse noise impact would result;
- this limit would not put an unreasonable burden on the appellant;
- factors in this case support a lower threshold for the level of noise exposure above the WHO-NNG recommended LOAEL of 40dB.

*"In the Roseacre Wood appeal also considered by the Inspector at the same time background levels at night were lower than the Preston New Road site at around 30dBLAeq. The appellant considered that 42dBLAeq, 1hr (free field)*

should represent the LOAEL for the project whilst the MPA considered the noise limit should be set at 37dBLAeq. Although it was also argued by one of awareness groups that only a noise level below 30dB(A) could be considered quiet they accepted that 35dBLAeq would be an appropriate limit in terms of 'as low as reasonably practicable' with 37dBLAeq constituting a compromise. The Planning Inspector concluded a noise limit of 37dBLAeq, 1hr (free field) combined with other noise conditions relating to tonality etc would satisfactorily control adverse noise impacts during the night.

*Low Frequency Noise:* based on the information submitted in respect of the source sound power and on our understanding of the findings of the appeals we do not consider low frequency noise to be a particular cause for concern. We would consider the potential for prominent tones and impulses could be controlled by planning condition.

*Drilling Rig:* As details of the exact rig to be used at this site (should planning permission be granted) is not known the report states 'the assessment is based on noise levels and characteristics which are considered to provide an upper limit on adverse noise impacts which is representative of that which may arise from any rig that is eventually selected'. The report indicates sound power data used in the assessment is based on data reported in previous applications regarding exploration drilling where the data is derived from robust noise survey data. In addition, the effects of embedded mitigation measures have been assumed within the range of values which have been shown to be achievable on other drilling sites. As it is not possible at this stage to check the data and assumptions used in the assessment it would be necessary to include a condition in any planning permission granted to ensure the rig utilised on site is consistent with the underpinning assumptions.

*Daytime noise:* PPG-M which considers daytime to be 07:00-19:00 indicates the noise limit at the noise sensitive property should not exceed background by more than 10dB(A) or where this is not possible without imposing unreasonable burden the limit should be set as near that level as practicable. In any event the total noise should not exceed 55dBLAeq, 1hr (free field). The results of the noise assessment indicate that during the drilling and coring (Stage 2) the daytime level should be below the background plus 10dB(A). As the project is limited to drilling and coring we would consider a planning condition setting the noise limit to no more than 10dB(A) above background (LA90, 1hr) to be reasonable.

*Evening Noise:* PPG-M which considers evening to be 19:00-22:00 indicates the noise limit at the noise sensitive property should not exceed background (LA90, 1hr) by more than 10dB(A) and should not exceed 55dBLAeq, 1hr (free field). The results of the noise assessment indicate that during the drilling and coring (Stage 2) the evening level should be below the background plus 10dB(A). As the project is limited to drilling and coring we would consider a



*planning condition setting the noise limit to no more than 10dB(A) above background (LA90, 1hr) to be reasonable.*

*Noise Management Plan: Assuming an acceptable noise limit can be agreed with the applicant we would also recommend a condition requiring a noise management plan to be submitted and approved by the MPA before commencement of the development. This plan should include details of relevant noise data for all items of noise-emitting plant to be used on site to ensure compliance with the planning conditions setting noise limits can be complied with; mitigation measures to be installed on any plant to ensure compliance with planning conditions; details of any other mitigation measures and a policy for addressing any noise complaints received.*

*Noise monitoring scheme/methodology: we would recommend a condition requiring details of a noise monitoring scheme should be submitted to the MPA for approval prior to the commencement of the development. The scheme should include as a minimum details of the proposed monitoring locations, equipment to be used, data to be collected; how the results will be issued to the MPA; contingency measures to be put in place should the results indicate an exceedance of the noise limits set out in the planning conditions.”*

Following the submission of further information, the JEHS, in its second response reiterated in relation to noise that its primary concern is the adverse impacts that local residents could face, especially during the drilling and coring phase where 24 hour drilling would take place and the current background levels are low.

The JEHS has concerns regarding the applicant's approach to the Planning Policy Guidance – Minerals (PPG-M). The PPG-M refers to the limit for night-time noise as 42dB(A) at noise sensitive properties. Nonetheless, it also says that any adverse impacts should be kept to a minimum between 22:00 and 07:00. The JEHS highlights the difference in sound levels between the current background noise and 42dB, and that the PPG-M mentions that its suggested values are not fixed; 'specific circumstances may justify some small variation being allowed'.

The applicant has stated that the only way of reducing night-time noise to lower levels is through the use of additional mitigation which it believes to be unreasonable burden. The applicant states that it has procurement procedures in place to set very tight noise levels on the apparatus and ensure it abides by the limits it has taken from the PPG-M guidance. Equipment achieving significantly lower sound levels than 42dB(A) at a noise sensitive property is not possible, and installation of additional noise mitigation measures is the only option.

The JEHS recognises the acoustic difficulties faced by the applicant, that the applicant is planning to use the best available equipment to help lower sound

levels, and that the applicant believes that unreasonable burden is a key issue in making a decision.

Nevertheless, the JEHS comments:

*“Although the letter indicates the installation of additional mitigation measures further to those already considered in noise assessment would constitute unreasonable burden there has not been any quantification of the potential costs/benefits relative to the overall cost/benefits of the project. We would consider an assessment of unreasonable burden should take account of a range of factors, some of which may be specific to this application e.g. costs, duration of the proposed works; potential health and safety implications; and others may be wider ranging e.g. Government policy, need to explore future energy sources etc.”*

The JEHS is of the opinion that ‘a comprehensive assessment of other possible options [such as slowing the drill rig or imposing additional measures on other noise omitting sources] is lacking’.

Unreasonable burden has been discussed at meetings with the JEHS and applicant, however, the JEHS says that evidence should be presented to establish that unreasonable burden is a technical justification. The JEHS comments:

*“In the consideration of the acoustic issues only it is our view the night-time noise limit of 42dB(A) cannot be considered as the Lowest Observed Adverse Effect Level (LOAEL) as detailed in the Noise Policy Statement for England (NPSE, 2010). It must be appreciated there is a not inconsiderable difference between the background sound levels at night in the vicinity of the site and the night-time noise limit defined in the PPG-M guidance. Given this, noise from the proposed development will be clearly audible in the local environment and may at times be intrusive within nearby dwellings. These impacts are accepted as a balance within the minerals guidance against the argument of unreasonable burden on the minerals operator.”*

An example of the Preston New Road site in Lancashire is given whereas the Appellant has committed to the reduced noise level in the event that permission was granted this was considered to cast considerable doubt on the claims that unreasonable burden was involved. On the other hand:

*“Achieving the night-time noise limit (or lower) will mean the design criteria set in BS 8233:2014 can be met at the nearest noise sensitive property which is the standard often required to be achieved through the use of planning condition where it is demonstrated that the lower noise design targets are not practicable under the circumstances.”*

A draft Noise Management Plan has been submitted and the JEHS considers it to be appropriate for the inclusion in a planning condition, once the details have been finalised.

### **Dronfield Town Council**

The Town Council objects to the proposal on the following grounds:

- The significant increase in HGV traffic on local road infrastructure, particularly Dyche Lane, Eckington Road and Snowdon Lane which will be severely impacted upon.
- The safety risk posed to pedestrians and other road users by this added HGV traffic on roads which are narrow in places, with narrow pavements, and where parked cars already create difficulties for road users.
- The industrialisation of an attractive piece of countryside surrounding Dronfield, which will have undesirable impacts on the local environment and the visual amenity of those residents living close to the site.

### **Unstone Parish Council**

Unstone Parish Council object to this application due to a variety of concerns raised by members of the local community. Reasons for objecting are as follows:

- Industrialisation of a rural space, and a negative impact on a conservation area and surrounding Green Belt land.
- Significant effect on the local economy – temporary disruption to local businesses such as public houses and equestrian centres ‘could prove permanently detrimental’.
- The installation of a drilling rig would significantly affect the SLA, which lies within 200m of the site.
- HGV movements may reach 100 in one day, extending over 12 hours. INEOS defines an HGV as having a weight exceeding 7.5T. The defined access road to the site is currently prohibited to vehicles exceeding 7.5 T for new activities. The drilling rig trucks will weigh more than 32T. This will be unmanageable on any of the access routes.
- Situated too close to housing.
- The size of the proposed rig will dominate the skyline in a rural area which is recognised for its views.

Its conclusion is that the local community will be exploited to benefit INEOS and the site owner.

### **Eckington Parish Council**

Eckington Parish Council objects to this application, mainly on the basis of noise, roads and traffic, and the impact on the surrounding area. The Parish Council believe that vibration and noise pollution, including white noise, will disturb nearby residents, schools and play areas. It also highlights other noise

generated from pumps, compressors, heavy vehicles and increased traffic which will result in sleep disturbance and stress.

The Parish Council does not believe that the local roads are suitable for HGVs and the increase in traffic from the proposal and that it would have an extreme impact on the local community, environment and wildlife as a result of a 24 hour working site, flood lighting and air pollution in the form of hydrocarbons, dust and venting/flaring of methane. Furthermore, it comments that *“The site sits in the Green Belt within a farming area... [and] landscape would be considerably changed and the countryside industrialised.”*

Concern is also expressed over old, and perhaps unmapped, mine workings and the threat of collapse the development poses. The Parish Council conclude that the *“adverse impact on our local communities will far out-weigh the benefits and even with initial exploratory drilling will leave an unwelcome legacy of change in the locality.”*

### **Environment Agency**

The EA has no objections to the proposed development, but provided comments as follows:

1. **“Groundwater Comments:** ‘The proposed exploration well is not situated on a Principal Aquifer or within a Source Protection Zone’.
2. **Requirement to formally notify the Environment Agency of an intention to drill an exploratory well:** *“Before constructing or extending any borehole intended to be used for oil or gas exploration or extraction, operators need to submit a notice of intention under section 199(1) of the Water Resources Act 1991 (as amended by the Water Act 2003) to the Environment Agency. This applies to boreholes at both new and existing sites.*

*An operator must serve the notice at least 28 days before drilling commences by submitting the necessary form (WR11) and supporting information to us (see below). However, it is recommended that the notification is provided to us as soon as possible in order to avoid delays (i.e. in case additional information is needed).*

*We will review the information provided and decide if it will be necessary to serve a conservation notice. The operator must provide sufficient information to show that they will not cause interconnection of aquifers, that fluids used for drilling will not pollute groundwater and that the works will not impact legitimate users of groundwater or groundwater dependent features.”*

3. **WR11 Form:** *Operators who want to construct or extend a boring to explore for or extract minerals must complete a WR11 form’. A method*

*statement contributing supporting information should be submitted alongside the WR11 form. The method statement should contain a detailed description of the proposal and the measures to protect groundwater resources. 'A Conceptual Site Model (CSM) and Hydrogeological Risk Assessment (HRA) should support the method statement.*

- 4. Supporting Information – Method Statement:** *The operator must provide enough information to enable a judgment to be made about whether we are satisfied that water resources will be protected and for us to decide if a conservation notice under Section 199(2) of the Water Resources Act 1991 should be issued, or not.*

*The operator must show that the work will be carried out in a way that protects water resources. This should be based on the HRA and conceptual understanding of the site, which has usually been prepared at the planning or permitting application stages. If not, the operator will need to complete this to demonstrate that they have a thorough understanding of the risks and the mitigation measures are sufficient to protect groundwater resources.*

*The method statement should include (but not be limited to):*

- *Information on the geological, hydrogeological and hydrological setting along with a CSM (if a HRA has been prepared for either planning or permitting then this may be sufficient to support the method statement).*
- *The drilling methodology including timings, details of the drill method, drill fluid and muds and casing (and tying in of) for each geological unit (including information on all additives and chemicals which may be used during installation).*
- *A detailed (and site specific) description of the borehole construction along with the final well design (including location, depths and casing details).*
- *Details of how the different geological units will be protected from pollution (including from the impact of turbidity) during the drilling (for example from the release of drill fluid or from causing aquifers to become connected).*
- *Details of the site surface and confirmation of pollution prevention measures to be taken.*
- *Details of any monitoring which will be carried out during the works (for example groundwater, surface water and drill fluid returns).*
- *Confirmation of the program for borehole integrity testing.*

**5. Permitting Requirements:**

- **Advice to LPA/applicant:** *This development will require an Environmental Permit under the Environmental Permitting (England and*

Wales) Regulations 2010 from the Environment Agency. I can confirm that Ineos have recently applied for a standard rules permit SR2015 No1.

- **Advice to applicant:** *If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably permitted facility."*

### **Health and Safety Executive (HSE)**

The Health and Safety Executive's response, in full, is as follows:

*"Thank you for your email regarding application CM4-0517-10. Details of the health and safety regulatory regime applicable to these developments are below.*

#### **Regulation of onshore oil and gas wells**

*Wells drilled to explore for shale oil or gas are designed and constructed to the same standards as all other oil and gas wells that have been in operation in UK for a number of years. There have been 350 onshore oil and gas wells drilled in the UK since 2000.*

*All wells must be constructed to recognised industry standards and are cased using steel and cement to ensure the risk of an unplanned leak of fluids is as low as reasonably practicable. Near the surface, where there is nearby groundwater, or an aquifer, there are normally three layers of this steel casing. The operator will conduct a range of checks on the well to test for leaks. Suitable well control equipment must also be provided to protect against the risk of a release of fluids from the well.*

#### **Health and safety regulations applicable to onshore wells**

*HSE's regulatory regime is long-established and goal-setting. There are general duties under the Health and Safety at Work etc Act 1974 (HSWA). Those who create health and safety risks to workers or the public as part of their undertaking have a duty to manage and control the risks so far as is reasonably practicable. This is supplemented with more specific regulations particular to the extraction of gas and oil through wells, which includes shale gas and oil operations.*

*The Borehole Sites and Operations Regulations 1995 (BSOR) apply to all onshore oil and gas wells. These Regulations require notifications to be sent to HSE about the design, construction and operation of wells, and the development of a health and safety plan which sets out how risks are managed on site.*

*The Offshore Installations and Wells (Design and Construction etc) Regulations 1996 (DCR) include specific requirements for all wells, whether onshore or offshore, and include well integrity provisions which apply throughout the life of shale gas or oil wells. They also require the well operator*

*to send a weekly report to HSE during the construction of the well so that inspectors can check that work is progressing as described in the notification.*

*The operator must also appoint an independent well examiner who has an important quality control role in ensuring that the well is designed, constructed operated and abandoned to industry and company standards and that regulatory requirements are met.*

*This combination of duties ensures that HSE is provided with information at key stages in the lifecycle of a well and allows HSE inspectors to assess whether risks are being adequately controlled and, if not, to take the appropriate regulatory action.*

### **How HSE regulates oil and gas exploration activity**

*HSE's intervention approach has two main elements:*

- 1. Specialist well engineers help develop best practice standards for the industry as a whole with Oil and Gas UK and the United Kingdom Onshore Oil and Gas (UKOOG). All members of UKOOG have agreed to comply with these standards. The latest standards <http://www.ukoog.org.uk/onshore-extraction/industry-guidelines> were published in February 2013.*
- 2. The second element is to use risk-based interventions on particular sites and operators and to ensure they are managing well integrity. HSE uses its team of expert wells engineers who cover all types of hydrocarbon wells, both on and offshore. An oil or gas well is a complex engineered construction, most of which is below ground and not accessible to visual inspection. HSE therefore takes a lifecycle approach to well integrity, using the notifications and weekly well reports as well as meetings with the operator and on-site inspection to ensure the operator is managing the risks appropriately.*

### **What information is provided to HSE and when?**

*To comply with BSOR, the well operator must submit a notification to HSE at least 21 days before work commences. It consists of information on the design and construction of the well including:*

- the design of the well,*
- equipment to be used,*
- programme of work,*
- location, depth and direction of the borehole,*
- its relationship with other wells and mines,*
- the geology of the drilling site,*
- risks identified with the work and how these risks will be managed.*

*These notifications allow HSE to assess the well design before construction starts. This is a key phase of work where the vast majority of issues likely to*

*have an impact on well integrity will be identified and addressed by the well operator. It includes ensuring that safety features are incorporated into the design. Inspectors will contact the operator if they have any concerns or queries about the information supplied.*

*Further notifications are required if there is a material change to the information previously supplied in a notification.*

*To comply with DCR, the operator must report to HSE every week during construction of the well and during work to decommission the well. This provides HSE with assurance that the operator is constructing and operating the well as described in the notification. If they are not, HSE can take the appropriate regulatory action. The weekly report gives details of all work that has taken place since the previous report including:*

- well integrity tests,*
- the depth and diameter of the borehole,*
- the depth and diameter of the well casing,*
- details of the drill fluid density which allows the inspector to gauge the pressure in the well and identify any stability issues.*

*There is also a specific set of occurrences that the well operator must report to HSE under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations):*

- a blowout, ie an uncontrolled flow of well fluids,*
- the unplanned use of blowout prevention equipment,*
- the unexpected detection of H<sub>2</sub>S (hydrogen sulphide – an explosive gas),*
- failure to maintain minimum separation distance between wells,*
- mechanical failure of any safety-critical element of a well.*

*Reporting of well incidents enables HSE to investigate those that would have an effect on well integrity and ensures the well operator secures improvements to their operations.”*

## **Coal Authority**

The Coal Authority commented that when a proposed development falls within the Development High Risk Area, it would generally recommend the following two things to the applicant:

1. obtain coal mining information for the site; and
2. submit a Coal Mining Risk Assessment to support the planning application.

The Coal Authority confirms that the site falls within the defined Development High Risk Area, and there are therefore coal features and hazards which must



be considered. Coal Authority records reveal a mine shaft outside, but close to the eastern boundary, of the site, for which it holds no treatment details for, meaning its *‘recorded location and associated zone of influence may be subject to significant departure’*. However *‘its associated zone of influence is not located within the specific part of the site where new development is proposed’*.

Whilst the general approach for developments within Development High Risk Areas is to suggest the above, the Coal Authority comment:

*“when considering this particular proposal; whilst there is a recorded mining feature within close proximity to the application site, the specific part of the site where new development is proposed actually falls outside the defined Development High Risk Area. Therefore we do not consider that a Coal Mining Risk Assessment is necessary for this proposal and do not object to this planning application.”*

The Coal Authority has no records revealing shallow mine workings but, as a coalfield area, there is still potential for unrecorded historic coal mining features. For this reason, the Coal Authority proposes that an informative note be included in the decision notice, should planning permission be granted advising the developer to contact the Coal Authority in the event that mining features are found.

### **Derbyshire Wildlife Trust (DWT)**

DWT made extensive comments on the biodiversity of the site and proposed development, and gave advice on how the development could be improved from this perspective.

The DWT queried the applicant’s ecological assessment which identifies the site as within an area of arable land bounded by native hedgerows. It instead anticipates that, irrespective of condition, all the hedgerows on the site qualify as UK Biodiversity Action Plan (BAP) priority habitat (Habitat of Principal Importance) and requested that this needed to be clarified.

Two conditions are suggested by DWT, regarding replacing any removed hedgerows and the timing of site clearance work outside of the bird breeding season unless a suitably qualified ecologist has confirmed the absence of nesting birds, to ensure that the proposal does not cause a net loss of hedgerow priority habitat.

DWT was initially of the view that there was insufficient information in the application documents to enable it to make an informed assessment of whether the proposal would have any adverse ecological impacts and to advise the planning authority accordingly as to whether the proposal complies with relevant legislation and policies relating to biodiversity. This was due to the timing of the extended Phase 1 Habitat survey which was carried out

during the sub-optimal survey season and therefore, DWT believes, omits the value of the site to foraging and commuting bats, and breeding birds. Any ground nesting priority species, such as skylark and lapwing, both of which were recorded in the area during DWT's visit to the site on 31 June 2017, would be particularly underrepresented.

DWT concluded that an accurate assessment of the proposal's ecological impact cannot be given until a breeding bird survey and bat activity survey is carried out, and thus these surveys are advised.

Following the submission of further information from the applicant in relation to bats and breeding birds, DWT provide further comments.

On lighting, DWT acknowledges that any lighting will be directed into the site, away from the hedgerows and trees where bats are likely to be active. However, it considers that a detailed lighting scheme would need to be submitted prior to the commencement of work. It also highlights that it does not know whether the impact on foraging or commuting bats would be reduced by the use of Passive Infrared (PIR) lighting.

In response to the applicant obtaining data records from the Derbyshire Ornithological Society, DWT comment that breeding occurrences on site are not referenced in these records, but this does not mean they are absent from the site. DWT re-enforce its view that surveys should be carried out:

*"If surveys are not undertaken to determine the use of the site by breeding ground nesting priority species such as lapwing and skylark then suitable mitigation should be put in place to not only avoid impacts during the nesting season but also to promote the protection and recovery of these priority species by ensuring the availability of suitable alternative nesting habitat nearby.*

*Although the report states that there is plenty of other similar arable habitat surrounding the site if small numbers are displaced this is too vague and does not specify where this alternative habitat is located or in what sense it can be viewed as compensatory given that it presumably is outside the control of the applicant.*

*The displacement of lapwing to existing nearby land that may already support lapwing cannot be considered as compensatory and if surrounding land is not already used by breeding lapwing that could suggest it is unsuitable and would need to be enhanced to provide suitable habitat.*

*We are firmly of the view that the applicant should take responsibility for the impacts associated with the proposal and should not merely rely upon the availability of suitable nearby land outside of the applicant's control. The applicant should secure the availability of suitable nearby alternative nesting*

*habitat for lapwing and skylark. Suitable compensation for these species would need to take the form of equivalent areas of land set aside for these species and sympathetically managed through either the purchase of nearby land or by entering into an agreement with neighbouring landowners.”*

DWT noted that the small section of hedgerow to be removed would be replaced following the decommissioning of the site and expect the hedgerow planting to be included as part of the landscaping required by a planning condition and that overall, it is likely that the biodiversity value of the hedgerows will be improved.

### **Natural England**

Natural England considers that the proposed development will not have significant adverse impacts on designated sites and has no objection. Natural England provided standing advice on other natural environment issues relating to:

- Landscape;
- Best and most versatile agricultural land and soils;
- Protected species;
- Local sites and priority habitats and species;
- Ancient woodland and veteran trees;
- Environmental enhancement;
- Access and Recreation;
- Rights of Way, Access land, Coastal access and National Trails; and
- Biodiversity duty.

### **The Woodland Trust**

The Trust does not believe that the proposed development would affect any areas of nearby ancient woodland, and therefore it did not submit any comments.

### **Historic England**

Historic England offered no comments on the application.

### **Yorkshire Water**

Has no comments to make on the application and considers that its waste water infrastructure would be unaffected by the development.

### **Public Health England (PHE)**

PHE provided comments on emissions, permits, monitoring and noise. PHE indicated that the development would need the “standard rules” environmental permit. In terms of emissions, PHE considers that:

*“For the site operations proposed within the planning application and as described above, emissions to air from either point or fugitive sources,*

*emissions to surface and groundwaters and emissions of odour are unlikely to cause public health impacts, provided the guidance previously referenced is followed.”*

It highlights that the installation of boreholes would require an environmental permit(s) and consultation with the EA, and believe in the importance of robust environmental monitoring at every stage of the operation, should it go ahead. Furthermore, PHE advises the Planning Authority to ‘*consider the suitability of the applicant’s proposals for monitoring*’ against the relevant health-based standards, perhaps consulting the EA to validate the proposals. This may help to prepare for any unexpected impacts.

Noise emissions as assessed in the application are compared with relevant regulations and guidance. The applicant concludes that the noise from the site is negligible. PHE points out that although the applicant concludes that the noise from the site is negligible, the noise is of a subjective nature and it advises that the local community is kept abreast and is forewarned as much as possible of any particularly noisy periods. PHE conclude:

*“Based on the information contained in the application supplied to us, Public Health England has no significant concerns regarding the risk to the health of the local population from the installation. This response is based on the assumption that the applicant will take all appropriate measures to prevent or control pollution, in accordance with the relevant sector guidance and industry best practice.”*

### **Highways England**

Had no comments on the application.

### **The Highway Authority**

Derbyshire County Council, in its statutory role as Highway Authority, provided detailed comments on the proposed development’s expected effect on local roads.

The Highway Authority noted that the submitted Environmental Assessment includes an evaluation of the percentage change in vehicle movements; it estimates that the proposals could generate a maximum of 70 total daily movements of which 60 would be Heavy Duty Vehicles (HDV) on key routes, calculating that the maximum impact of the development traffic would be around a 1% increase over baseline occurring on the B6056. The maximum percentage increase in HDVs for this section of the route would be approximately 17%, i.e. roughly half of the 30% threshold set out in the Guidelines for the Environmental Assessment of Road Traffic. For information, these percentage increases are used to identify the need to further examine the network, however they do not indicate the ability or otherwise of the route to cope with the extra traffic in absolute terms.

The Highway Authority highlighted the following:

- The route *'contains the least number of sensitive locations and built up areas (i.e. those locations likely to have the most significant adverse impact upon local residents)'*.
- Save for Coal Aston, this is largely a rural route.
- The chosen route is not weight restricted.
- HGVs can fit on the roads, although some additional traffic management may be necessary.

The Highway Authority noted that the applicant highlighted two areas which may require mitigation measures: the Dyche Lane/Eckington Road mini-roundabout and the Snowdon Road/Manor Top Road junctions. Manoeuvre is possible, visibility is good and/or measures are available, and therefore objection on the basis of these locations is unjustified and, although further discussions would need to take place, mitigation measures *'appear to be adequate'*.

The Highway Authority commented in more detail on how the route would cope with the proposal:

*"As mentioned above, the increase in light traffic flows on the B6056 on a daily basis as a result of the development generated traffic would be relatively minor. The increase in HGV movements between Dyche Lane and the site access during the peak trip generation for the development would be significantly higher for a limited number of days. Although the percentage increase in HDV movements is more substantial than the increase for light vehicles, given the current volumes of traffic and the general lack of congestion on these roads (with the exception of the Dyche Lane roundabout in peak periods) and the controls on the timing of deliveries etc. along with the character and geometry of the roads in question it is considered that the proposed route can accommodate the existing two-way vehicular flows and the predicted development traffic without any significant delays."*

Other Highway Authority comments are summarised as follows:

- Collision data from Derbyshire Constabulary has been examined and there is no evidence to suggest that incidents would be exacerbated by the development;
- In terms of road maintenance, an annual contribution with a cap in place is suggested; and
- The submitted information has some inconsistencies in terms of road names/routes. These should be clarified for the avoidance of doubt.

The Highway Authority concludes:

*“In view of the above, there is insufficient evidence to justify a technical highway-related objection which could reasonably be sustained in the event of an appeal, and therefore there is no objection to the application subject to the inclusion of a Section 106 agreement incorporating a monitoring obligation as above, and the following conditions and notes being included in any consent granted.”*

*The Highway Authority consider that any section 106 agreement should include the following obligations/commitments:*

- *The extent of the highway network to be monitored*
- *The frequency and timing of monitoring surveys*
- *The participants of the monitoring surveys*
- *The nature of the highway assets to be surveyed*
- *The methodology for determining and undertaking remedial works*
- *The maximum developer contribution to remedial works*
- *Financial elements (indexation, interest payments, return of unused funds)*
- *Dispute resolution/arbitration*

The Highway Authority also recommended a number of conditions relating to highway safety and condition of the highway.

### **Lead Local Flood Authority (LLFA)**

Derbyshire County Council, in its statutory role as LLFA, advised that the application did not trigger a need for a bespoke response. The application was considered low risk and generic standing advice was offered, summarised as follows:

1. **Surface Water:** The site is not currently seen as at significant risk of surface water flooding. Nonetheless, ‘*any alteration to the impermeable surface area of the development site*’ may intensify the risk, and the development is therefore expected to include Sustainable Drainage Systems (SuDS) in the drainage strategy designs of any proposed development. More specific advice on SuDS is given in the response.
2. **Historical Data:** The LLFA is not aware of any records of significance in close proximity to the site.
3. **Fluvial Data:** The LLFA does not hold data on modelling on specific ordinary watercourses, and advises the applicant to contact the EA for further information on this topic. The applicant is advised, however, to investigate possible hidden watercourses on this site prior to the commencement of works, as historic mining and mineral extractions give

potential for networks of soughs, adits or old stone drainage channels in Derbyshire.

4. Groundwater Data: *‘Development located in areas where the water table is at a shallow depth below the ground surface may be susceptible to groundwater flooding’*, which would then give potential for further hazards such as local land instability. A link is provided for Groundwater Guidance Notes.
5. Water Framework Directive/Water Environment Data: the LLFA provides the following statement on this matter:

*“The LLFA support the Environment Agency in delivering their objectives of the Water Framework Directive for all water bodies to reach ‘good ecological status’. No activities or works, including the proposed development, should deteriorate the status of any nearby watercourse as the main objectives for the WFD is to prevent deterioration in ‘status’ for all waterbodies. The ecological health of any receiving watercourse can be protected by the implementation of a SuDS scheme with an appropriate number of treatment stages that are appropriately maintained.”*

### **Public Health, Derbyshire County Council**

The response received on behalf of the Director of Public Health suggests that due consideration is given to the development of an effective community involvement strategy. The response is worded as follows:

*“The preference from a Public Health perspective would be to move swiftly to a sustainable energy system based on renewable sources. As hydraulic fracturing maintains a carbon based system of energy production it does not align with Public Health priorities.*

*As this is the first stage within the hydraulic fracturing process and is exploratory drilling only, Public Health refer to the technical and specific elements highlighted within the PHE response to this application.*

*Industry good practice guidelines for hydraulic fracturing recommend fully involving communities at all stages; stating that, at the exploratory stage the industry has committed £100,000 in community benefits to each community, per well-site.*

*In relation to this, the Ladder of Citizen Participation (Arnstein, 1969) is a well-established modelling of the various levels of community involvement: <https://lthgow-schmidt.dk/sherry-armstein/ladder-of-citizen-participation.html>. It provides a useful benchmarking tool for determining the effectiveness of actions taken to engage with communities. From the information provided by INEOS Upstream Ltd, in its Community Involvement Statement, it is evident*

*that a number of community consultation activities have been carried out. Applying the Arnstein model, these represent informative and consultative levels of engagement.*

*However, the statement does not explain how feedback will be shared with the community and stakeholders, and it does not mention on-going consultation with the local communities. It does not provide evidence of how the community and stakeholders will be involved in the design of mitigation measures, or explain how these will be monitored and communicated. Information submitted by the applicant shows that 52% of local residents taking part in the consultation activities rated the community engagement poor or very poor; with a further 20% saying it was neither good nor poor. (INEOS Upstream Ltd. Community Involvement Statement, p.11).*

*It is concluded that the applicant has carried out some engagement activities but these have limitations. In the light of the significant local interest in this application, and the potential impact on community relations, Derbyshire Public Health would recommend that due consideration be given to developing an effective community involvement strategy to be shared with stakeholders, including the local community.”*

### **Campaign to Protect Rural England (CPRE)**

CPRE objects to this proposal on the grounds of the negative impact on landscape, tranquillity and local amenity which it considers contradicts local policies. CPRE comments that it holds a ‘moratorium’ position on shale gas extraction until it can prove it can help reduce carbon emissions, be carefully controlled by regulation and not harm landscape. It also holds ‘a *policy of a general presumption against fracking*’, but comments that it judges all applications for shale gas related developments individually.

CPRE has read the application alongside the Development Plan, the consultation draft of NEDLP and the DDMLP, and believes the proposal to be ‘inconsistent with a number of these policies’. These contradictions are summarised below.

#### **Landscape**

- CPRE comments that the proposal would be inconsistent with the valued landscape character which it understands to be “Wooded Hills and Valleys”.
- The Landscape and Visual Impact Assessment (LVIA) within the Environmental Report admits the substantial impact on the landscape which CPRE ‘equate[s] with significant visual intrusion over the local area’. CPRE believes this is not compatible with NEDLP saved Policy NE1 [NE2], and emerging policies SS1, SS14, SDC3 and DDMLP Policy MP1.
- It also comments that ‘*Emerging NED policy SDC3 also highlights the need not to cause significant harm to perceptual qualities such as*



*tranquillity... the Bramley Moor Lane site falls within an area of median relative sensitivity within Derbyshire, which should be protected'. The development therefore does not comply with Policy SDC3.*

#### Green Belt

- *"From the above evidence of landscape and visual impacts, and noting national policy that mineral extraction is not inappropriate per se in green belts, we conclude that the proposals would not preserve openness, not meet the test of 'very special circumstances' and are therefore inconsistent with NED saved policy GS2 and emerging policy SS9."*

#### Biodiversity

- CPRE agrees with DWT on hedgerows and think their replacement is necessary, not optional, in order to comply with NEDLP Policy NE7, emerging Policy SDC2 and the DDMLP Policy MP1(4). It comments that the better alternative is not to remove the hedgerows at all due to its UK BAP priority habitat status.
- It is also in agreement with DWT that the extended Phase 1 Habitat Survey is inadequate and, at the very least, breeding bird and bat surveys are required.

#### Local Amenity and Traffic

- CPRE believes that the DDMLP Policy MP1 would be contradicted given the development's effects on local amenity, visual intrusion, noise, loss of tranquillity and disturbance.
- It also thinks that the analysis of the current traffic data is flawed; the increase in HGVs will dominate movements associated with the development.
- NEDLP saved policies GS1 and T2, and emerging policies SS1 and SDC3 are contradicted through the impacts on numerous communities on route.
- Local communities do not believe impacts have been reduced to an acceptable level. This, CPRE believes, contradicts the Government's 2015 Written Minerals Statement.

CPRE comments on INEOS' planning statement '*... an application primarily concerned with whether the proposed exploratory core well is an acceptable use of the land*'. However, CPRE is of the view that there are wider issues of climate change and sustainable development that need to be taken into account, as follows:

- *"Recent research published by the Town and Country Planning Association (TCPA) confirmed the requirement that local plans must have robust climate change policy on mitigation and adaptation (see s.19 of the Planning and Compulsory Purchase Act 2004, as amended by s. 182 of the Planning Act 2008) and saying 'in practical terms, and given the policy in the NPPF, this means all local plans should set out a clear*

*carbon dioxide trajectory, in line with the emissions reductions required by the Climate Change Act 2008' (p.7, Planning for the climate challenge?). Legal advice provided to the TCPA also found this duty has greater weight than the viability test. In the absence of policies, either from DCC or NEDDC, to give effect to this requirement, it is unclear how this or other developments should be considered in relation to their contribution to climate change mitigation.*

- *Despite INEOS' assertions that UK shale gas can 'help meet the objectives for lower carbon emission' (Planning Statement p.50, section 8.3), the UK Government's Committee on Climate Change found that exploitation of shale gas on a significant scale is not compatible with UK carbon budgets, or the 2050 commitment to reduce emissions by at least 80%, unless three tests are satisfied. Key within these tests is the deployment of carbon capture and storage (CCS) and displacement of other fuels by shale gas. Currently plans for CCS in the UK have been abandoned and there is no policy mechanism within the current energy market to ensure displacement. We submit therefore that there is currently no substantive evidence to show that shale gas extraction will be other than injurious to meeting the UK's legal requirements, hence CPRE's call for a moratorium and our local presumption against.*
- *Meeting climate change targets is also a vital part of the 'golden thread' of wider sustainability that must run through the English planning system, including development plans. We are clear that this application by dint of its impact on landscape, green belt, biodiversity, local amenity (including traffic impacts) and its potential to lead to climate change emissions, and weighed against very little benefits, either locally or nationally, fails to satisfy NED saved policy GS1 and emerging policy SS1."*

### **Friends of the Earth (FoE)**

FoE objects to the proposed planning development on the following grounds:

#### *Potential for 'disturbance' to protected species (including bats)*

FOE is of the opinion that the Phase 1 walk-over in January 2017 was 'well outside the optimal survey window for bats'. Furthermore, the Bat Conservation Trust states that at least one survey visit per season is necessary. Even though an aerial tree survey and additional survey were undertaken, they were still outside the bat season which they class as a 'huge omission'.

FOE believes that it is the responsibility of Derbyshire County Council and Natural England to minimise disturbance caused to Schedule 2 species. It comments that 'the lack of survey work undertaken at the correct time of year (i.e. when bats are on the wing) to establish the presence of bats' makes it difficult to know whether proceeding with the development would cause 'disturbance', especially as some bat species travel to forage. FOE is in agreement with DWT that further survey work at the correct time of year is necessary to establish the risks.

FOE states that the details submitted on lighting fail to demonstrate the measures which will be taken to minimise disturbance of bats. It gives advice as to the data which should be provided, and indicates how it should be compared ('with plans showing records for the different species of bat').

Whilst the site is outside the surrounding SSSIs, it is within an SSSI IRZ, and FOE says that *'little appears to have been submitted to address this fact. What adverse impacts will the development have on species associated with the SSSIs, or indeed on areas of woodland situated to the periphery of the site?'*

FOE asks that the application in its current form is refused in line with DDMLP Policy MP4, and conclude on the topic of disturbance:

*"The possibility of disturbance to bats, lack of lighting mitigation, together with no consideration of species utilising woodland further north and the site's location within the IRZ should weigh heavily against the scheme in the planning balance. Further evidence should be provided to address these concerns, including surveys during bat season; details of lighting specifications to minimise 'disturbance' to bats and consideration of any linkages to species using Leak's plantation further north."*

*Landscape and Visual Impact (including visibility from the setting of heritage assets)*

FOE establish its view that *'exploratory drilling rigs and their associated infrastructures... are highly industrialising developments, especially in rural contexts'*. An example is given of the Preston New Road fracking site in Lancashire, *'where now intensive construction works are heavily industrialising what was green pasture'*. However, a condition was added to the planning permission limiting the drilling and fracturing rig height to 36m, as opposed to the 56m rig in the planning application, in recognition of the local community's landscape and visual concerns. FOE state:

*"The applicants have based their Landscape and Visual Impact Assessment on a 60m drilling rig, over 24m higher than the limit the SoS imposed at Preston New Road. This site is within 300m of a Special Landscape Area (and Area of Multiple Environmental Sensitivity); which requires the local authority to apply a higher test on landscape impact than otherwise. In the worst case scenario, Ineos' proposed drilling activities are scheduled for a period of 5 months or more (when including the 60m drill rig 32km work-over rig7), and will be highly visible, including from parts of the Special Landscape Area, and other sensitive receptors such as heritage assets (including 4 conservation areas). In addition, the rig will be lit at night as 24 hour drilling would be allowed."*

FOE considers the relevant development plan policies to be Policy MP1 of the DDMLP, and NEDLP policies NE1 and NE2.

FOE is also of the opinion that the photomontages provided are insufficient in terms of sufficiently judging the overall visual impact; only existing views are provided, not interpretations of what the development will look like in context.

In the view of FOE, there is nothing to indicate how the scheme will look day or night, and 'the sensitivity of the Landscape Character Area (LCA), the policy remit, the site's proximity to the SLA and Areas of Multiple environmental Sensitivity (AMES), as well as a Moss Valley Conservation Area', a night skies assessment should be carried out.

The Guidelines for Landscape and Visual Impact Assessment (GLVIA) produced by the Landscape Institute and the Institute of Environmental Management and Assessment establish that the LVIA 'must deal with cumulative effects'. However, INEOS' planning statement says it is '*not aware of any other minerals development...that when combined with this proposal, would have an unacceptable cumulative effect*'. FOE points out that, although that may have been true at the time:

*"Ineos have now submitted an applications for a similar exploratory fracking development at Harthill, Rotherham just over 10km east of the site... Harthill also proposes the use of a 60m rig, requiring lighting at night. We would also note that INEOS have also submitted a screening opinion request from Rotherham Metropolitan Council for a site at Woodsetts, for an additional exploratory site."*

FOE therefore asks Derbyshire County Council to request a further assessment looking at Harthill, Woodsetts, and 'other developments'.

Its comments go on to discuss Zones of Theoretical Visibility. FOE says that it is hard to establish the impact without 'photomontages of the proposed development...from a wide range of viewpoints'. It therefore proposes that the Authority should request these photomontages.

*"Such sensitive receptors, including significant heritage assets, should be included within an additional iteration of the ZTV, so that members of the public and statutory bodies (such as Historic England) can better judge the level of theoretical coverage. This would then inform the identification of suitable vantage points, and with proposed montages enable a more robust assessment of the level of visual impact (no matter how temporary the developers suggest the most adverse effects will last, the authority must consider the precedents being set.*

*From our own analysis (see plate 1.2 below), it is evident there is potential for theoretical coverage from least 4 out of 5 conservation areas within 4km, as well as numerous listed buildings and other heritage assets. We would query then why only three vantage points have been chosen in total to establish visual impact from an rural area of medium sensitivity which includes a range*

*of sensitive receptors. Of these, only one of the three vantage points includes one of the two closest conservation areas located near to the site."*

In conclusion, FOE says that the applicant's LVIA indicates that the significant landscape and visual effects will be 'short term and temporary'. In contrast, FOE says *'this represents significant landscape and visual effect, no matter how short a period of time the drilling rig is mobilised'*. It also highlights that the applicant *'draws conclusions of visual impact from existing photos; which is not in line with best practice (re GLVIA)'*.

#### *Inconsistency with the Water Framework (EU) Directive*

FOE refers to the Planning Practice Guidance and the Minerals Plan regarding water quality and the applicant's planning statement which suggests that the effect on groundwater will be neutral. However, FOE believes the Water Framework Directive is relevant here. The Directive is quoted:

*"The case of groundwater is somewhat different. The presumption in relation to groundwater should broadly be that it should not be polluted at all...But for general protection, we have taken another approach. It is essentially a precautionary one. It comprises a prohibition on direct discharges to groundwater, and (to cover indirect discharges) a requirement to monitor groundwater bodies so as to detect changes in chemical composition, and to reverse any anthropogenically induced upward pollution trend. Taken together, these should ensure the protection of groundwater from all contamination, according to the principle of minimum anthropogenic impact."*

FOE believes the precautionary approach by the Water Framework should be considered justified as drilling/fracking fluids in unknown quantities could be deposited deep within the ground should any eventual fracking take place. FOE believes that the effectiveness of the proposed water monitoring boreholes is arguable.

*"While EA groundwater monitoring is no doubt a useful tool to measure effects on aquifers nearer to the surface, the effectiveness of a 50m borehole to ascertain impacts over 2,353m further below the ground and the possible interplay with the old coal mine workings should be properly evidenced."*

*The coal mine risk area location of the site should be factored into the consideration of water resources. While mitigation is proposed in terms of "appropriate well and borehole design", and incorporation of a geomembrane and storage of drilling fluids in tanks, no mitigation is fool proof, and in light of the importance placed upon ground water within the Water Framework Directive (i.e. "it should not be polluted at all"), we would encourage the authority to invoke the precautionary principle and refuse the development. This would ensure compliance with online planning practice guidance and the Authority's own saved policy MP1."*

*Air Quality*

In terms of fugitive emissions, FOE believes there to be insufficient information in the proposal which could lead to unknown effects on air quality. Advice is given to the planning authority to request further information on this matter, and on monitoring. It highlights the lack of data regarding how much methane or other gases will be released; this information is needed to assess the effect of the gas. FOE also points out that emissions from HGVs and ALLVs have not been taken into consideration.

*Incompatibility with NPPF climate change adaptation and mitigation objectives*

Methane ‘escapes from onshore oil production processes’, and yet no information on methane leakage is given. FOE believes:

- That the leakage of methane should be covered on the risk assessment;
- The proposed emergency venting technique is not the best solution;
- There is insufficient evidence to prove that the risk of methane being released due to coring is of ‘very limited potential’; and
- This in turn leads to a failure to demonstrate compliance with the ‘NPPF’s intention to secure “radical reductions in greenhouse gas emissions”.

*Transport*

In terms of traffic, FOE highlights an inconsistency between the Secretary of State’s Screening Direction and the Environmental Statement regarding the number of HGV movements per day. Even though this increase is only during the site development stage, FOE believes that the increase is unacceptable given the rural setting.

FOE comments that the 60mph speed limit on the B6056 is unsuitable considering the quantity of HGVs entering and exiting the site. The safety implications for other road users, including cyclists and pedestrians, must be thoroughly considered. FOE describes this as a ‘key issue’ and draws the example of the Preston New Road fracking site, where the Transport Management Plan has been updated six times since the development’s approval in January 2017. It states:

*“Such incremental changes have been made to meet the ever-changing requirements of the developer and represent the reality on the ground for the planning authority should the application be accepted (re various applications to vary previously agreed conditions).”*

FOE quotes NEDLP Policy NE2, stipulating that permitted developments:

*“would not unduly disturb or detract from the visual amenity of an area by the attraction of large numbers of people or excessive traffic”.*

It is the opinion of FOE that this has not been considered by the applicant. Furthermore, the aforementioned inconsistency between the Screening

Directive and the Environmental Statement in the number of HGV movements 'should warrant close scrutiny from the authority'.

Finally, FOE mentions that HGV movements would most likely increase due to water and waste if hydraulic fracking was introduced.

**The Civil Aviation Authority, National Air Traffic Services, Coal Aston Airport, Leeds and Bradford Airport, Department for Environment, Food and Rural Affairs, Rotherham Metropolitan Borough Council, Western Power, Severn Trent Water National Grid cadent gas, Ramblers Association and the Royal Society for the Protection of Birds**  
Have all been consulted but no comments have been received.

### **Publicity**

The application has been advertised by press notice (Derbyshire Times), by site notice and by neighbour notifications with a request for observations by 10 August 2017; it was again advertised by press notice (Derbyshire Times) on 6 November 2017, by site notices and neighbour notification following the submission of further information with a request for observations by 7 December 2017. In response to this publicity 3,192 individual letters of representation, from 3,033 households have been received objecting to the proposal, and 2 letters raising questions about the proposal, along with 9 letters expressing support of the application. A further 49 individual letters of representation, from 44 households objecting to the proposal were received but due to lack of information, were unable to be processed.

There have been several submissions in relation to the proposal from the local campaign groups Eckington against Fracking, Chesterfield Climate Alliance, Transition Chesterfield and Food and Water Europe.

Prior to the submission of the application, a worldwide online petition with approximately 67,107 signatures was received relating to fracking in Derbyshire.

The main concerns and objections raised in the representations to the proposal are summarised below:

### **Location**

- Site being too close to residential properties and would be intrusive and cause major disruption for residents.
- Site being too close to Marsh Lane Primary School and could prove a noisy environment to children.
- Quietness and peacefulness of the area.
- Exceptional need not having been demonstrated.

## Noise

- Noise from the operation of compressors and pumps running 24 hours per day.
- Noise from traffic 24 hours a day.
- Noise from excavators, vehicles loading and unloading and from reversing beepers.
- Disturbance to residents along the route 24 hours a day.
- Noise bunds not being sufficient to prevent noise levels rising.
- Concerns about the accuracy of the noise assessment that has been carried out and the impact of noise being greater than predicted.
- Possible further phases of development with hydraulic fracturing from the well.

## Traffic

- Increased volume of traffic.
- Narrowness and unsuitability of roads.
- Roundabout on route being un-navigable without disrupting other road users.
- Concerns for pedestrians, horse riders and cyclists' road safety.
- Concerns about disruption caused by convoys.
- Concerns about the new access to the site and the visibility of the access to other road users.
- More HGVs resulting in more accidents.
- Misclassification of vehicle types in INEOS's Traffic Survey.
- Traffic congestion already being a problem in the area, the addition of between 17% and 120% in HGV's per day would cause a major problem.
- Concerns about emergency services and public transport accessing the area due to narrow roads and INEOS convoys.
- Traffic impacting on the businesses in the area.
- Mud on the road causing hazardous conditions.
- Traffic congestion along the route.
- Damage to the road surface and verges.
- Concerns for children's road safety.
- Glare from poorly shielded outdoor lighting, because it decreases vision by reducing contrast, especially when driving.

## Green Belt

- The development at the Green Belt location against the Local Development Plan.
- Exceptional need for change not having been demonstrated.

## Light Pollution

- Light from night time working and security affecting both local residents and wildlife, causing lack of sleep impacting on work by adults, schooling for children, and disruption for nocturnal/diurnal animals.



- Area is located in a “Dark Skies” area.

### **Landscape and Visual**

- Industrialisation of landscape.
- Drilling dominating the landscape and spoiling the openness of the countryside near Marsh Lane.
- The rig being a blot on the landscape due to the height.
- Site being an ‘eyesore’ for five years or more.
- Loss of tourists due to limited access to the area because of convoying INEOS vehicles, constant noise and loss of beauty.

### **Air Pollution**

- Pollution from diesel fumes.
- Pollution from methane during venting/flaring.
- Dust generation from the site.
- Concerns about the exhaust emissions over many homes and a school.
- Air pollution from dust, ozone, hydrocarbons and venting/flaring of methane.

### **Impacts on the Water Environment, Drainage and Contamination**

- Impacts from water to be used (an average of 3 million gallons of water is used per well). Water used in fracking becomes unsuitable for most uses other than fracking another well.
- Impact through water use on farming during times of drought.
- Water pollution due to accidental damage to the core or earth movement.

### **Wildlife and Ecology Impacts**

- Loss of wildlife habitat and flora.
- The woods and fields having taken centuries to mature and “*its nonsense to say that they would be restored to their former glory.*”
- Impact of dust on wildlife.
- Closeness to a SSSI.
- Impact on badgers, foxes, reptiles and birds using the site.
- Skylarks nesting in the fields.
- Owls hunting in the fields, their food being driven away.
- Impact on trees and hedgerows. Hedges taking many years to return to their current height and thickness.

### **Impact on Public Health**

- Health impacts from disturbance, noise and dust.
- Impact on people with heart, lung diseases and asthma living in the area.
- Marsh Lane Primary School being less than 300 metres away.
- Children’s lungs being particularly susceptible to air pollution.
- Sleep deprivation/disorders arising in the local population.

- Already health issues in the area as a result of stress and anxiety from the proposal.
- Consequences of sleep deprivation being able cause anything from irritability and depression in short term sleep deprivation to increased mortality with chronic insomnia.
- Concerns about radon gas as the area is known to have high concentrations.

### **Vibration and Land Stability**

- Vibration from the HGV traffic.
- Concern about ground movement with drilling so close to housing.
- Concern about old mine workings and the release of gas and radon from collapsing mines.

### **Economic**

- Lack of financial benefits to the local area.
- Little employment in the project for local people.
- Financial strain on the local health budget.
- Impact on tourism and leisure services.

### **Other Concerns**

- Properties losing value, costs of insurance increasing and exclusion of earthquake cover.
- Loss of enjoyment of gardens.
- The proposal being about exploitation of farmland for financial gain.
- The benefits of the proposal not offsetting the disruption that would be caused.
- Concerns about abandonment of the site. An insurance bond being necessary in case the company goes bankrupt so the site can be restored.
- Consideration of this application standing alone and not taking into account any other sites INEOS might be applying for or the impacts on transport that could occur from them, with multiple applications using the same roads thus having a cumulative effect.
- Climate change (green energy investment required).
- Scientific research and Government reports being understood to confirm that UK commitments to cut Green House Gas emissions would be undermined by a shale gas industry.
- Other comments relating to INEOS, the applicant company, and its environmental record.
- Are there any measures in place to ensure that emergency services have priority road use at all times as this could cost lives, never mind property damage in the case of fires?

Comments received in support of the proposal:

- The UK needs fuel independence.
- Importing gas produced by fracking from the USA.
- Renewable energy is at the moment unable to provide all our needs.
- Safer to use near vertical than near horizontal shafts as less danger of sub-strata moving causing tremors.
- Without this technology we could be held to ransom in the future if we are unable to meet our energy needs.
- This technology is better than giant wind farms dotted all over the County.
- The entire site should be screened by bushes/trees as a condition of approval and this would cut opposition to the site being an “eyesore” along with financial penalties applicable for any failure to adhere to timescales.

In response to this publicity, the Authority also received a letter of representation from Lee Rowley MP, the Member of Parliament for North East Derbyshire. Lee Rowley MP considers the application to be inappropriate for the area proposed and not compliant with key planning policies in the following areas:

- Substantial increase in traffic on a rural road network;
- Significant impact on the nearby Moss Valley Conservation Area;
- Unacceptable harm to the character and openness of the Green Belt;
- Dramatic change to the character and rural nature of the landscape;
- Potential impact upon the environment, biodiversity and nature within Bramley Moor;
- Unacceptable impact upon, and loss of, hedgerow;
- Potential archaeological significance of the site;
- Potential disturbance of in-situ industrial heritage;
- Unacceptable loss of fertile agricultural land;
- Uncertainty regarding previous mining extraction on site or nearby;
- Light egress within a rural area;
- Potential air pollution; and
- Other potential concerns not adequately dealt with by the application.

## **Planning Considerations**

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications must be determined in accordance with the development plan unless other material considerations indicate otherwise. In respect of this application, the relevant policies of the development plan are saved policies from the DDMLP and the NEDLP. Other material considerations include national policy in the current (2012) NPPF and the

current national Planning Practice Guidance (PPG). Government policy and statements on energy provision are also relevant to this proposal.

### **The Development Plan**

The DDMLP and the NEDLP both predate the NPPF. Therefore, if where there is any inconsistency between the NPPF and a relevant saved policy from the DDMLP and the NEDLP, it may be necessary in assessing the proposal to moderate the attribution of weight to the policy, in line with their degree of inconsistency.

Paragraphs 215 and 216 of the NPPF set out official advice in this regard, and with regard to affording weight to policies in emerging local plans. They advise that the weight given to existing policies will depend on their consistency with the NPPF and, in the case of emerging plans, the stage of preparation and degree of consistency with the NPPF; the more advanced the preparation and the closer the policies are to the NPPF, the greater the weight that may be given. Paragraph 211 clarifies that for the purposes of decision-taking, the policies should not be considered out-of-date simply because they were adopted prior to the publication of the NPPF.

The Development Plan policies which are of clearest relevance to this proposal are stated below. Having regard to Paragraph 215 of the NPPF, I consider these Development Plan policies to be fundamentally consistent with the NPPF, as well as the Planning Practice Guidance (PPG). Notwithstanding the ages of the adopted plans from which the Development Plan policies derive, they should be accorded substantial weight in the determination of the proposal.

### **Derby and Derbyshire Minerals Local Plan**

The principal policy in the Development Plan that relates to proposals for gas exploration is Policy MP13: Mineral Exploration which states that:

*“Proposals for mineral exploration which require planning permission will be permitted provided that their impact on the environment is acceptable and they would not cause irreparable or unacceptable damage to interests of acknowledged environmental importance.*

*Where permission is granted it will be for a temporary period only, and conditions will be imposed to ensure that:*

- 1) operations are regulated to minimise the effect of the development on the environment and*
- 2) any land disturbed as a result of the operations is satisfactorily reclaimed to an acceptable after-use.”*

Other relevant policies of the DDMLP are:

MP1: The Environmental Impact of Mineral Development.  
MP2: The Need for Mineral Development.  
MP3: Measures to Reduce Environmental Impact.  
MP4: Interests of Acknowledged Environmental Importance.  
MP6: Nature Conservation – Mitigation Measures.  
MP7: Archaeology – Mitigation Measures.  
MP10: Reclamation and After-use.

### **Emerging Minerals Local Plan**

Derbyshire County Council and Derby City Council are jointly preparing a new Minerals Local Plan which will, when adopted, cover a period up to 2030. The emerging minerals plan has been subject to several rounds of initial consultation, and, by the date of this meeting, a consultation to enable the completion of a draft, “Towards a Minerals Local Plan: Winter Consultation 2017/2018”, will be underway. The consultation will present a draft version of the Plan, setting out the vision and objectives and overarching strategic sustainability principles which will underpin the Plan, together with the approach for each of the important minerals found in the area and which are likely to be in demand over the Plan period. It also contains a set of draft policies which will be used to assess and determine new development proposals. Overall, at this stage, I consider that these draft policies should carry little weight in the assessment of this proposal.

### **North East Derbyshire Local Plan**

The NEDLP does not include any specific policies for mineral development but there are a number of policies in the Plan that are relevant to the consideration of the proposal. The NEDLP shows the area of the application site as being located outside all settlement development limits (covered by Policy GS5: Settlement Development Limits) and in the Green Belt (covered by Policy GS2: Development in the Green Belt).

Other relevant policies of the NEDLP for this proposal are:

GS1: Sustainable Development.  
GS6: New Development in the Countryside.  
GS8: Temporary Land Uses and Buildings.  
NE1: Landscape Character.  
NE2: Special Landscape Areas.  
NE3: Protecting and Managing Features of Importance to Wild Flora and Fauna.  
NE7: Protection of Trees and Hedgerows.  
BE2: External Lighting and Floodlighting.  
BE6: Scheduled Ancient monuments and Archaeological Sites.  
BE9: Development in the Vicinity of a Listed Building.  
T2: Highway Access and the Impact of New Development.

#### CSU4: Surface and Foul Water Drainage.

NEDDC is currently preparing a new local plan for North East Derbyshire to cover a period up to 2033. A consultation draft local plan for the District was published and consulted on in February 2017 (Regulation 18 of The Town and Country Planning (Local Planning) (England) Regulations 2012). In this consultation draft the site is shown as continuing to be located in an area of Green Belt. However, I consider that little weight can be placed on the draft policies within the consultation draft at this time.

#### **National Planning Policy Framework**

The NPPF sets out the Government's key economic, social and environmental objectives and the planning policies designed to deliver them. It states that the purpose of the planning system is to 'contribute to the achievement of sustainable development', and that there should be a presumption in favour of sustainable development. The term 'sustainable development' is not defined as such but the NPPF states that, in essence, it means that ensuring better lives for ourselves now does not mean worsening lives of future generations. It states that sustainability has three key dimensions, economic, social and environmental.

The NPPF, in Section 13 Facilitating the sustainable use of minerals, advises MPAs at Paragraph 144 to give great weight to the benefits of mineral extraction, including to the economy, but that they should also ensure that the development does not give rise to unacceptable adverse impacts on the natural and historic environment or human health, including from noise, dust, visual intrusion, traffic and flood risk. It recognises at Paragraph 142 that minerals are essential to support sustainable economic growth and our quality of life, and that it is important, therefore, that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, minerals are a finite resource and can only be worked where they are found, so it is important to make best use of them to secure their long term conservation.

Specific but limited guidance on hydrocarbons is set out in Paragraph 147 of the NPPF which states that, *"Minerals Planning Authorities should also...when planning for on-shore oil 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..."*.

Other sections of the NPPF that are particularly relevant to this proposal are Section 9, *Protecting Green Belt Land* and Section 11, *Conserving and enhancing the natural environment*.

## **Planning Practice Guidance**

The PPG includes guidance on the planning for mineral extraction, including assessing the environmental impacts, restoration and aftercare of proposed schemes. The PPG states that as an emerging form of energy supply, there is a pressing need to establish through exploratory drilling, whether or not there are sufficient recoverable quantities of unconventional resources such as shale gas and coal bed methane present to facilitate economically viable full scale production. With regard to assessing demand for, or considering alternatives to oil and gas resources, the PPG states that MPAs, when determining planning applications should take account of Government energy policy, which makes it clear that energy supplies should come from a variety of sources, this includes oil and gas.

The PPG provides advice on the planning issues associated with the three separate phases which are involved in the extraction of hydrocarbons (exploration, appraisal and production) and should be read alongside the NPPF. The guidance addresses some of the technical issues associated with hydrocarbon working and provides a description of the different operations involved in each phase. It includes an explanation of the role of the planning system in obtaining permission and a summary of the role of the other official regulators also involved in the process.

## **National Energy Policy**

There have been several important stages in the evolution of current national energy policy. The Department of Trade and Industry Paper, Meeting the Energy Challenge, 2007 stated that the Government would make the most use of the UK's reserves of oil and gas but noted that production had hit a peak and was declining, as were the remaining reserves.

The draft National Policy Statement for Energy, published in 2009, builds on the 2007 Energy White Paper. Together they set out to address the long term energy challenges of security of supply, whilst acknowledging the implications of climate change. Together they form an evolving international and domestic energy strategy in response to the changing circumstances in global energy markets. Whilst recent emphasis has been on the development of renewable energy supplies, the Government recognises the important and continuing role that indigenous sources of coal, oil and gas will play in meeting national energy requirements.

The 2011 Energy White Paper 'Planning our Electric Commitment Future: a White Paper for Secure, Affordable and Low Carbon Electricity', sets out the Government's intention to transform the UK's electricity system to ensure that our future electricity supply is secure, low-carbon and affordable. The White Paper identifies a number of challenges that the Country will face over the coming decades:

- security of supply as existing plant closes;

- the decarbonisation of electricity generation;
- demand for electricity is likely to rise; and
- electricity prices are expected to rise.

The White Paper notes, that a dependence on traditional fossil fuels leaves the Country open to volatile prices, deepens our dependence on imported energy and leads to the emission of too much carbon; reforming the energy market is necessary to ensure future supply and build a cleaner, more diverse, more sustainable electricity mix.

During 2011, six energy National Policy Statements (NPSs) were approved. The Overarching National Policy Statement for Energy (EN-1), has an effect on the decisions of the National Infrastructure Directorate (NID) on applications for nationally important energy infrastructure projects, but is also a material consideration in decision making for proposals that fall to be determined under the 1990 Act. EN-1 re-affirms the Government's commitment to meet EU and prevailing national targets. EN1 recognises that the UK economy is reliant on fossil fuels, and that they are likely to play a significant role for some time to come. However, the UK needs to wean itself off such a high carbon energy mix: to reduce greenhouse gas emissions, and to improve the security, availability and affordability of energy through diversification and therefore reduce, over time, its dependence on fossil fuels, particularly unabated combustion.

On 27 June 2013, the Government announced its long-term infrastructure investment plans which included a package of reforms to facilitate shale gas exploitation. The Government recognised that the simultaneous announcement of the British Geological Survey study highlighting the extent of potential reserves required further appraisal but it considered that shale gas has the potential to contribute significantly to the UKs' energy security, inward investment and growth. The infrastructure investment plan statement indicated that a key role for gas would be consistent with the need to decarbonise our economy. It is regarded by the Government as the cleanest fossil fuel, and much of the new gas capacity needed would be replacing the ageing coal capacity. Gas is also seen as important for balancing the increasing levels of intermittent and inflexible low-carbon energy on the system.

The Energy Act 2013 received Royal assent of 18 December 2013. The Act has several objectives and, in relation to hydrocarbons, it seeks to make provision for the setting of a decarbonisation target range and duties in relation to it; or in connection with reforms to the electricity market for purposes of encouraging low carbon electricity generation, or ensuring security of supply. It is also about the designation of a strategy and policy statement concerning domestic supplies of gas and electricity. It does not actually prescribe a new strategy or policy at this stage but instead sets the procedural requirements for doing so. It is likely, however, that future policy and strategy will reflect the



overall objective of the Act to reduce our carbon footprint and, in turn, this will affect the future demand for minerals including fossil fuels.

On 16 September 2015, the Secretary of State for Energy and Climate Change issued a Written Ministerial Statement (WMS) to Parliament, entitled 'Shale Gas and Oil Policy'. The statement formally replaced the Shale Gas and Oil Policy Statement issued by the Department of Energy and Climate Change (DECC) and the Department of Communities and Local Government (DCLG) on 13 August 2015. The WMS sets out the Government's view that there is a national need to explore and develop shale gas and oil resources in a safe, and sustainable and timely way. The WMS also states that exploring and developing shale gas and oil resources could potentially bring substantial benefits and help meet objectives for secure energy supplies, economic growth and lower carbon emissions. The Government considers that "*there is a clear need to seize the opportunity now to explore and test our shale potential*".

In November 2015, the Secretary of State for Energy and Climate Change issued a WMS to Parliament, entitled 'Priorities for UK Energy and Climate Change Policy'. The WMS does not change national planning policy or guidance but it does set out Government thinking on the approach to energy supply. The Secretary of State stated that one of the greatest and most effective contributions we can make to emissions from electricity generation is by replacing coal-fired power stations with gas. The programme was to be subject to consultation but indicated a restriction on the use of coal by 2023 and the possible closure of all coal fired power stations by 2025. This was subject to the development of the infrastructure to enable the shift to take place. This could have implications for the UK onshore oil and gas industry and the utilisation of indigenous resources.

On 13 January 2017, BEIS issued a guidance note entitled 'Guidance on fracking: developing shale gas in the UK'. The introductory overview states that the Government believes that shale gas has the potential to provide the UK with greater energy security, growth and jobs and that it is encouraging safe and environmentally sound exploration to determine this potential. The main part of the guidance note provides information about the sources of shale gas, how it can be extracted, the environmental issues raised and the regulatory regime that controls the industry.

### **The Regulatory Regimes**

The control of development, as provided for in the Town and County Planning Act 1990, is one of the key regulatory regimes which apply to onshore hydrocarbon exploration and extraction. Derbyshire County Council, as MPA, has an essential role in this, though in the case of this application for planning permission, the Secretary of State, through the appeal, has become the decision-maker. The key regulators are listed below, to explain briefly their involvement:

- a) The Oil and Gas Authority (OGA) – which issues Petroleum Licences, gives consent to drill under the licence once the other permissions and approvals are in place, and has responsibility for assessing risk of and monitoring seismic activity.
- b) The Council as MPA, or the Secretary of State on appeal grants permissions for the location of any wells and wellpads, and imposes conditions to ensure that the impact on the use of the land is acceptable.
- c) The EA – protects water resources (including groundwater aquifers), ensures appropriate treatment and disposal of mining wastes, emissions to air, and suitable treatment and management of naturally occurring radioactive materials.
- d) HSE – regulates the safety aspects of all phases of extraction, in particular, it has responsibility for ensuring the appropriate design and construction of a well casing for any borehole.

The PPG makes it clear that there are a number of issues which are covered by other regulatory regimes and that MPAs should assume that these regimes will operate effectively. Whilst these aspects can overlap with the considerations which the MPA would regard as planning considerations, there is no need for the MPA to carry out its own assessment of such aspects since it can rely on the assessments of other regulatory bodies.

The comments from the EA and the HSE in relation to this proposal are set out in full in the consultation section of the report. The applicant has been granted a standard rules permit, relating to mining waste at the site, under the Environmental Permitting (England and Wales) Regulations 2016 by the EA.

### **Site Selection**

Prior to selecting the site which forms the basis of this application, the applicant carried out a site selection exercise which is detailed in the planning statement that accompanies this application. This included the analysis of geophysical data within the Petroleum Exploration and Development Licence (PEDL) area, analysis of environmental constraints, site specific requirements and site availability. Part of this process was, wherever possible, to achieve a minimum offset distance to properties of 400m from the well, as this helps to limit night time noise. The applicant's screening process identified areas where suitable sites may be located. The applicant states that the site at Bramblemoor Lane was selected as operational requirements were likely to be met and that the application demonstrates that the chosen site meets the operational requirements to construct and secure a well site, and drill a vertical core well; avoids environmental constraints wherever possible; and mitigates any adverse impacts upon the environment, including the local highway network, landscape character, flood risk and residential amenity. Due to ongoing negotiations with other landowners and the commercially sensitive

nature of the proposal, the applicant has not identified the extent of the wider area considered for detailed site selection.

The applicant's site selection process is described above, the need to locate the development at this site over any other in the area identified by the applicant's screening process appears to have been driven by operational requirements and land availability. The applicant has not provided any specific details on any alternative sites that were considered or reasons why they may have been discounted, for example no details on alternative sites outside of the Green Belt have been provided.

## Assessment of the Proposal

### Broad Principles

Hydrocarbons remain an important part of the UK's energy mix and there is support from the Government for this type of development in principle as a means of securing indigenous energy supplies and reducing the country's reliance on imports whilst generating energy with a relatively 'low' carbon footprint compared to other fossil fuel options. Government energy policy is clear that energy supplies should come from a variety of sources and this includes gas. Paragraph 124 of the PPG (Reference ID: 27-124-20140306) provides the following response to the hypothetical question:

*"Do mineral planning authorities need to assess demand for, or consider alternatives to oil and gas resources when determining planning applications?"*

*Mineral planning authorities should take account of Government energy policy, which makes it clear that energy supplies should come from a variety of sources. This includes onshore oil and gas, as set out in the Government's Annual Energy Statement published in October 2013."*

The Annual Energy Statement referred to in the PPG notes that as well as contributing to growth, energy policy is underpinned by the need to reduce carbon emissions in order to mitigate climate change and ensure UK energy security. It states *"However, in managing the transition to a low carbon energy mix, gas (as the cleanest fossil fuel) is expected to continue to play a major role. So continuing to ensure diversity of gas supplies remains important. Growth of unconventional oil and gas, for example, may help to ensure this."*

With regard to the determination of development proposals for gas extraction, the PPG advises MPA's to assess applications for each phase of development on their respective merits. In this case, the proposal is for the first exploratory phase only. The exploratory phase of hydrocarbon development seeks to acquire geological data to establish whether hydrocarbons are present and can only take place in areas where a PEDL license has been issued. The developer has been issued with such a license and there is an expectation

from Government that these licence block area will be explored. The developer has identified the site at Bramley Moor Lane as being suitable operationally for exploration. Any further development at this site beyond the exploratory phase would be the subject of separate planning applications and assessments.

Whilst the proposal under consideration is only about exploration and not final recovery, it is an accepted part of the mineral extraction process. The Government's current direction on energy encourages exploration and the recovery of the country's gas reserves. The proposal is, in my view, in principle consistent with national energy policy and guidance in that it would allow investment in energy infrastructure to establish whether indigenous gas reserves are available and worth exploiting. There is a national need for energy minerals and, in principle, the development is supported by the NPPF and Government Energy Policy.

However, consideration must also be given to the environmental impacts of the proposal and whether or not they are acceptable in line with tests in policy MP13 of the DDMLP and Paragraph 144 of the NPPF.

### **Detailed Considerations**

The main considerations for this proposal are set out below:

- i) whether the proposal amounts to inappropriate development in the Green Belt, and if so whether the harm would be clearly outweighed by other considerations, so as to amount to the very special circumstances necessary to justify the development;
- ii) the environmental impact of the development, in particular, its impacts on the landscape, visual impact, the impacts of noise and disturbance, air quality, traffic and highway safety, ecological, hydrology, heritage, and cumulative impacts; and
- iii) whether or not the proposed development would be acceptable in environmental terms or could be made so by planning conditions and/or obligations.

In addition to Policy MP13 of the DDMLP and pertinent paragraphs of the NPPF, as set out above, when considering whether a proposal for mineral development is environmentally acceptable or capable of being made so by planning conditions/obligations policies MP1, MP3 and MP4 of the DDMLP are relevant.

Policy MP1 states that "*proposals for mineral development will be permitted provided that their impact on the environment is acceptable.*" Policy MP3 states that "*proposals for mineral development will be permitted provided that any adverse effects on the environment can be eliminated or reduced to an acceptable level*", having particular regard to a number of factors including the measures which are proposed to minimise the environmental impact of

proposals. Proposals for mineral working will therefore be allowed only where the adverse effects on the environment can be avoided or reduced to an acceptable level, and this assessment is to be made having regard to all the considerations listed in Policy MP1. Policy MP4 seeks to safeguard the environment and prevent irreparable or unacceptable damage to interests of acknowledged importance such as agricultural land, areas of landscape importance, nature conservation, heritage, water resources, transport and cumulative impact on the environment.

A description of the location of the site and the potentially sensitive environmental receptors is provided earlier in the report.

### **Green Belt**

The site is located on agricultural land, outside of the 'Settlement Development Limits' boundary as defined in the NEDLP, and in the North East Derbyshire Green Belt. The North East Derbyshire Green Belt covers a substantial part of the district. Located between Sheffield and Chesterfield in the north, Chesterfield and Wingerworth in the south and also the land to the west of Chesterfield to the Peak District National Park boundary. The Government attaches great importance to Green Belts, the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. The area of Green Belt, within which the proposal is located, is a strategically important area of Green Belt that helps prevent the coalescence of the southern part of the urban area of Sheffield with the towns of Dronfield, Eckington and Killamarsh within North East Derbyshire District.

There is a general presumption against development in the Green Belt. The NPPF at Paragraph 87 advises that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. NPPF Paragraph 88 sets out the basis for considering planning applications relating to Green Belt land and advises that when considering any planning application, Local Planning Authorities (LPAs) should ensure that substantial weight is given to any harm to the Green Belt, and that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. Paragraph 89 of the NPPF advises LPAs that the construction of new buildings should be regarded as inappropriate development, with a number of exceptions. Policy GS2 of the NEDLP also sets out the forms of development that would normally be appropriate within the Green Belt including the re-use of buildings, development associated with agriculture and forestry, essential facilities for outdoor sports and recreation, cemeteries and other uses of land that preserve the openness of the Green Belt and do not conflict with the purpose of including land within it. However, as noted above, the NEDLP does not specifically address mineral development and the NPPF offers more recent advice.

The NPPF at Paragraph 90 notes that mineral extraction is a form of development which is not inappropriate in Green Belt provided that it preserves the openness of the Green Belt and does not conflict with the purposes of including land in the Green Belt. In the appeal decision (Appeal Ref: APP/YB3600/A/11/2166561) and a preceding High Court judgement relating to an exploratory drill site at Bury Hill Wood in Surrey, it was made clear the works in the exploration phase for hydrocarbons must be treated as part of ‘mineral extraction’ for the purposes of Paragraph 90 of the NPPF. On this basis, exploration for minerals should not be treated as inappropriate development in the Green Belt provided that it preserves the openness of the Green Belt and does not conflict with its purposes. Therefore it is necessary to assess the effect of the proposal on Green Belt openness, and on the permanence and purposes of the Green Belt.

Paragraph 80 of the NPPF sets out the five purposes of Green Belts.

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns merging into one another;
- to assist in safeguarding the countryside from encroachment;
- to preserve the setting and special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Of the five purposes, the one that is directly relevant to the proposal is the third “*to assist in safeguarding the countryside from encroachment.*” It is considered that the limited scale and extent of the proposed operations would be unlikely to raise any significant implications for any of the other Green Belt purposes, particularly to check the unrestricted sprawl of large urban areas or to prevent neighbouring towns from merging into one another.

With regard to purpose three and openness, the site is an agricultural field largely bound by hedgerow and is on the whole free from physical development with the exception of the one agricultural building and there is limited activity in the area. I am of the view that the openness of the Green Belt would temporarily be materially compromised, for the period of the proposed operations. The construction compound, the cabins and drilling rig, vehicle movements and parking would encroach in to this area of countryside which forms part of the Green Belt. For the duration of the exploration works the proposal would conflict with one essential characteristic, openness and one of the purposes of the Green Belt.

However, the duration of the operation and the restoration of site should be taken into consideration to determine the effects of the development in the longer term on the characteristics and purpose of the Green Belt. This is a temporary proposal with exploration operation taking place over a period of five years, the most significant effects are likely to be during phases 1 and 2

when the site is established and during drilling operations when operations would be most intense at the site. The effect on Green Belt openness would be relatively short term and would not be permanent. The proposals incorporate the provision of landscape bunds and double stacked cabins, which would help to screen the site and operations to some extent and reduce its visual impact when viewed from the surrounding area.

The site, following completion of the operations, would be restored to its original condition, any encroachment into the countryside would be mitigated by the restoration proposals and would have a neutral effect in the longer term. Any longer term harm to the openness and permanence of the Green Belt would, in my view, be negligible.

For the duration of the operations the characteristics and purpose of the Green Belt would be compromised and this is a negative factor that should be weighed in the planning balance. However, I have taken into consideration the reversibility of the effect on completion and the fact that minerals can only be won where they are located, no site suitable for exploration beyond the Green Belt boundary has been suggested by the applicant. On balance, I am of the view that it would not be proportionate to judge the proposal as inappropriate development in the Green Belt. I do not consider that this planning application could be reasonably refused on Green Belt policy grounds.

### **Landscape and Visual Impacts**

The application site is located close to the settlement of Marsh Lane, in open countryside. The site is located within the Nottinghamshire, Derbyshire and Yorkshire Coalfield National Character Area (NCA) and at a local level within the Wooded Hills and Valleys Landscape Character Type (LCT) as detailed in the Landscape Character of Derbyshire publication. This LCT is described as a “*A broadly undulating upland with a strongly wooded character, defined by woodland, mixed farming and sparsely scattered settlement*”. The site broadly conforms to the description of the LCT being an upstanding hill summit down to arable farming and in the context of its immediate surroundings is distinctly rural in character. The land to the north of the site is designated as a SLA in the NEDLP, however, SLAs are proposed to be progressed to Landscape Character types based on landscape type characterisation in the new NEDLP under draft Policy SDC3 (Landscape Character). The site is also located 300m to the south of a broader landscape unit defined as an ‘Area of Multiple Environment Sensitivity’ (AMES) of primary sensitivity in a study by Derbyshire County Council.

The application is supported by a LVIA undertaken to assess the potential effects of the proposal on the landscape and on views and visual amenity. The overall sensitivity of the site to the proposal is assessed as low and the sensitivity of the wider LCT to be medium. The assessment concludes that the landscape effects at the site level are likely to be substantial in the site development and drilling stages (stages 1 and 2) at the local level, but they

would be temporary. The effects would reduce to minor during the maintenance phase (Stage 3), which is proposed to be the longest period in the site development. However, effects would increase to moderate during the restoration/decommissioning stage (Stage 5). On completion of the site development the landscape effect at the site level is assessed to be neutral.

The landscape of the surrounding area is not unattractive as is recognised by areas currently being defined as an SLA and the AMES work and this reflects the general quality of the local landscape.

The greatest effect on landscape character would be during the drilling phase when the 60m high drill rig is present on the site. Overall, I would agree with the applicant's landscape conclusions that there would be very little impact directly on the landscape fabric, with the exception of the short term loss of arable land and trimming of hedgerows for access, or on the more rural, wooded character of the wider landscape. The boundary hedgerows and trees would be retained and protected throughout the works.

The LVIA sets out the Zone of Theoretical Visibility (ZTV) from which there are likely to be views of the site and assesses the visual impact of the development from 3 viewpoint locations. The viewpoints have been used to predict the potential impact of the development at these locations. The LVIA considers the visual impact of the development during all phases of development. The LVIA concludes that from these selected locations moderate visual effect on views may occur during all stages of the development, substantial visual effects are predicted mainly during the drilling (phase 2) and workover stages (phase 3a) when the drill rigs are on site but these effects would reduce to minor/moderate during the maintenance stage (phase 3). On completion and following the restoration of the site the visual effect is assessed as neutral. All of the effects are considered to be temporary.

Whilst I would generally agree with the conclusions of the applicant's visual assessment, I am of the opinion that the viewpoint selected along the B6056 (viewpoint 3) would have better been selected to coincide with the gap in the hedgerow where (or near to where) the new access is proposed. Furthermore, I do not agree that the effects would reduce to minor during the maintenance stage. In my view, there would continue to be evidence of the development on the site, a somewhat industrial feature in this otherwise rural location by virtue of the embankments, fencing, access road and lighting that would be retained throughout the five year period. However, whilst these impacts might be greater than assessed, I do not consider that they would be significant overall. The visual impact of the site features that would remain on site for the duration, such as the perimeter bunds could, however, in my view, be better mitigated/softened through detailed design, which I would recommend is conditioned in the event that the planning inspector grants planning approval.



The proposal would require the removal and trimming of a section of hedgerow that forms the boundary to the B6056 in order to achieve the required visibility splays for the access. This is an important hedgerow which currently has a height in excess of 2m and provides a significant amount of screening to the site. Whilst in landscape and visual terms it would have been preferable for the overall height of the hedge to be retained, I accept that there is an identified highway safety requirement for this to be reduced.

However, the proposal does not deliver any overall environment benefit and hence the conclusion of the assessment that the proposal would have a 'neutral' landscape effect. The assessment acknowledges that surrounding boundaries to the site are characterised by broken hedgerows but I also note that there is a reliance on the retention of these landscape features in mitigating the visual effects of the proposal on nearby visual receptors, particularly local roads. The applicant has indicated, in additional information received since the submission of the application, that it would be willing to provide appropriate infill planting to the hedges adjacent to the wellpad area of the site to reduce gaps and enhance their biodiversity interest. I would therefore recommend, in the event that the Planning Inspector grants planning permission for the proposal, that a condition is imposed to require advance planting to infill these hedgerows, so that they deliver some long-term enhancement for the landscape, as well as contributing to nature conservation, but in the shorter term might also contribute to the visual screening of the site.

In conclusion, there would be substantial landscape and visual effects from this proposal, however, they would be localised and temporary. The most significant impacts would occur when the drilling rigs are on site, however, in the context of the whole development this would only occur for short periods of time. On balance, I do not find the landscape and visual impacts of the development to be unacceptable in the context of the NPPF or policies MP1, MP3 and MP13 of the DDMLP and policies GS6, NE1 and NE7 of the NEDLP.

## **Ecology**

The application is supported by an ecology report which sets out the baseline conditions at the site. It identifies potential ecological impacts which might arise as a result of the proposals, and outlines ecological mitigation, compensation and enhancement proposals. The report provides details of a desk top survey and a field survey which comprised of two visits to the site in January and February 2017. The ecological appraisal confirms that the application site is not located on or adjacent to any site of recognised ecological interest. The site is not located in any designated sites. The nearest Special Area of Conservation (SAC) or Special Protection Area (SPA) are located in excess of 10km from the site. The site is not located in a SSSI, the nearest being approximately 2km away, but it is located in a SSSI IZR. I am satisfied with the conclusions drawn in the ecology report with respect to designated sites, and I note that Natural England has also drawn the same

conclusion with regards to statutorily designated sites. Considering the distance to designated sites, the nature of the proposals and the lack of concern raised by Natural England, I am satisfied that there would be no likely impacts. In terms of The Conservation of Habitats and Species Regulations 2010, designated sites are unlikely to be significantly affected by the proposals.

The habitats within the site were assessed to be of low to moderate ecological value. The habitats consist of arable fields, with some native hedgerows around the south, east and western boundaries, and adjacent to the main road to the north of the site. The surrounding area supports arable land and improved grassland which is used for grazing. The hedgerows around the main site are described as defunct but species rich, whilst the hedgerow further north is considered to be intact but species poor. With the exception of the northern hedgerow, the hedgerows around the site lie beyond the site boundary and would be unaffected by the proposals. The northern hedgerow would require the removal of 36m hedgerow to create the site access and the cutting back to achieve the proposed access visibility splays (a stretch of approximately 215m). The applicant has stated that the hedgerow to be removed would be replaced upon completion of the works. The applicant's additional survey work carried out in August 2017 has clarified that this hedgerow is an important hedgerow in terms of the Hedgerow Regulations 1997, although it should be noted that the hedgerow qualifies for cultural, rather than ecological reasons, meeting the criteria that it is more than 30 years old and formed part of an integral part of a field system pre-dating the Enclosure Acts. This hedgerow is therefore of some interest and it will be impacted upon. However, the hedgerow will be, on the whole, retained and I do not consider that this would be significant impact, however a condition should be imposed to secure the replacement planting of this hedgerow.

The development proposals would also result in the loss of arable farmland for the duration of the operations, although the amount of land affected (under 2ha in a landscape with abundant arable land) is quite limited.

The likelihood for protected species on site has been assessed. Surveys for badger have been undertaken and some evidence (badger prints) were identified during the walkover survey of the site, although no badger setts were found. Any potential impacts on this species would therefore be small and could be mitigated by careful site working (e.g. no excavations left open overnight) which could potentially be conditioned as part of any planning approval.

Bat roost potential associated with the trees around the site were identified in the initial survey, however, subsequent tree inspections found them to have no or negligible potential to support bat roosts. The habitats on site were considered to be of limited value for foraging bats. DWT, in its first consultation response, did raise concerns about the extent of the bat surveys

that had been undertaken and the level of bat foraging and commuting activity associated with the site had not been established. The introduction of lighting to the area could potentially impact on these bat activities. Following the receipt of additional information from the applicant, DWT concurred with the applicant that bat activity would be likely to be associated with the hedgerows and occasional trees that surround the site, lighting would be directed into the site and away from the hedgerows and trees and a detailed lighting scheme should be secured by condition.

The proposed development would mainly be carried out during daytime hours with the exception of the drilling and coring phase when activities would be taking place on site 24 hours a day for up to 3 months; site lighting would be required at night during this period. The majority of the hedgerow and trees (other than the site access) that may be used by commuting and foraging bats would remain intact and there is similar habitat in the vicinity of the site. Overall, subject to a detailed lighting scheme, as referred to in the Light Pollution section below, being agreed and secured by planning condition, I do not consider that the proposal would significantly impact on bats.

The application site and its surroundings have the potential to support nesting birds. However, both the habitats present are common, and the ecological value of both arable fields and intensively managed hedgerows is known to be limited, in relation to the assemblage of breeding birds they are likely to support. It can therefore be inferred that the species assemblage likely to be found on and around the site will consist of common and widespread species of limited ecological significance. Impacts on nesting birds can be limited by undertaking site clearance, vegetation removal or similar activities only outside of the bird-nesting season, and a condition could be imposed to secure this approach. Accordingly, the residual impacts of the proposals on birds would be limited and restricted to the duration of the development. I note the comments of DWT regarding the presence of skylark and lapwing (both UK BAP species/Species of Principal Importance) and its view that breeding bird surveys are required in order to assess the value of the site understand the impacts of the proposals.

In response to these concerns, the applicant obtained Derbyshire Ornithological Society data records for the area. There is a lapwing record of a winter flock sighting referenced at the site area and a second for feeding birds from 2003, no occurrences of breeding behaviours have been recorded directly or surrounding the site. The applicant does not consider the temporary loss of less than 2ha within the site to be a material loss of variation to the use of the wider area by lapwing. The applicant is proposing pre-construction surveys to prevent any disturbance to breeding birds should construction commence during the breeding bird survey.

I agree with DWT that the absence of records for such species as lapwing and skylark should not be taken to infer their absence from the site. However, I am

of the view that conditions to protect these species could be imposed with any grant of permission. I would therefore recommend that in the event that the Planning Inspector is minded to grant planning permission, that conditions to require ground nesting bird surveys to be carried out prior to the commencement of works on site, and for a mitigation plan to be submitted and approved in the event that ground nesting birds are found.

In conclusion, I consider it unlikely that there would be a significant effect on the ecology of the site. However, as I have indicated above, conditions should be required to protect badger, bat and breeding bird species and to require replacement hedgerow planting from where it is removed. With such conditions, I am satisfied that the proposal would accord with the NPPF and policies MP1, MP3, MP4, MP6 and MP13 of the DDMLP and policies BE2, NE3 and NE7 of the NEDLP. I do not consider that there are ecological reasons that would warrant a refusal of planning permission.

### **Noise and Vibration**

The issue of noise is a significant one for this proposal, the site is located in a rural area and the nearby residential properties currently experience low levels of background noise. When considering the impact of noise from development proposals, the PPG advises MPAs to take account of the prevailing acoustic environment and in doing so, to consider whether or not noise from the proposed operations would give rise to a significant adverse effect or an adverse effect or whether or not a good standard of amenity could be achieved. The PPG refers to the Explanatory Note of the Noise Policy for England which requires identifying whether the overall effect of the noise exposure is, or would be, above or below the “significant observed adverse effect level”.

The PPG advises MPAs to aim to establish a noise limit, through a planning condition at the noise-sensitive property that does not exceed the background noise level by more than 10dB (A) during normal working hours (0700 hours - 1900 hours). Where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit set should be as near that level as practicable. In any event, the total noise from the operations should not exceed 55dB (A) LAeq 1h (free field). For operations during the evening (1900 hours -2200 hours) the noise limits should not exceed the background noise level (LA90,1h) by more than 10dB(A) and should not exceed 55dB(A) LAeq, 1h (free field ). For any operations during the period 2200 hours – 0700 hours noise limits should be set to a minimum to reduce any adverse impacts, without imposing unreasonable burdens on the mineral operator. In any event the noise limit should not exceed 42dB(A) LAeq,1h (free field) at a noise sensitive property.

Where an operation may give rise to particularly noisy short term activities, an increased temporary daytime noise limit of up to 70 dB (A) for periods of up to 8 weeks in a year at specified noise-sensitive properties should be considered

to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this will bring longer-term environmental benefits to the site or its environs.

### *Applicant's Assessment*

The application includes an assessment of noise and background noise levels which have been monitored by the applicant's acoustic consultant. Baseline noise measurements were recorded at three locations around the site chosen to be representative of the housing in the area. Background noise levels were recorded and the modal values are stated in the assessment as ranging from 37 to 41 dB LA90 during the day (0700 hours to 1900 hours), 34 dB LA90 during the evening (1900 hours to 2200 hours) and 25 to 28 dB LA90 at night (2200 hours to 0700 hours), depending on the location. However, the applicant's statement of case for the appeal sets out background noise levels as follows:

	<b>Background Noise Level (LA90 dB) (Modal Value Table 2-3 of Environmental Report) dB LA90 T</b>
Day	37
Evening	33
Night	24

The assessment identifies four noise sensitive receptors (NSR), NSR1 Ten Acres Farm, NSR2 Bramley Road and Ridge Road, NSR3 Heatherlee Farm and NSR4 Ash Lane Farm and considers the likely noise levels that would be experienced at these properties during site development and establishment and the drilling and coring phases of the development. It also takes into consideration the impact from traffic noise generated by the development. The assessment takes into account the mitigation measures that have been designed into the scheme which includes the use of bunds, containers and cabins for screening, noise attenuated top drive, positioning of the drill rig, use of silencers and other noise attenuation on equipment and machinery, restriction on night-time vehicle movements and regular maintenance.

The applicant's predicted noise levels for Stage 1 – Site Development and Establishment during daytime hours at NSR1 would be 65 dB LAeq, 1h Façade and at NSR2 56 dB LAeq, 1h Façade (the equivalent free-field values would be 62 and 53 dB LAeq). No construction works would take place during the evening or the night. This assessment is based on the ABC thresholds from the British Standard BS5228-1:2009 Code of practice for noise and vibration control on construction and open sites (hereafter referred to as BS5228) and measured baseline ambient noise levels. The applicant is of the view that noise levels during this stage would be at or below the resulting BS5228 threshold categories for construction noise of 65 dBLAeq.

During Stage 2 Drilling and Coring the applicant's predicted noise levels are 41 dB LAeq, 1h (free-field) at NSR1 and NSR3, 39 dB LAeq, 1h (free-field) at NSR2 and 37 dB LAeq, 1h (free-field) at NSR4. The applicant is of the view that residual noise levels with embedded mitigation would be below the 42 dB LAeq, 1h (free-field) limit set out in the PPG for night-time noise and below the absolute limit of 55 dB LAeq, 1h (free-field) and background plus 10 dB(A) for daytime and evening.

The applicant has not assessed noise for the subsequent stages 3 to 5, as stages 1 and 2 are considered by the applicant to be representative of the worst case noise emissions from all stages of the development. The applicant has, however, also assessed the noise impact from traffic resulting from changes in road traffic. The assessment concludes that the change in noise levels from road traffic would be imperceptible and the impact is considered to be negligible.

The applicant has suggested that a condition setting noise limits at 55 dB LAeq, 1h (free-field) for daytime operations, 44 dB LAeq, 1h (free-field) for evening and 42 dB LAeq, 1h (free-field) for night-time. With regard to night-time noise the applicant is of the view that trying to reduce night-time noise to a lower level would place unreasonable burden upon them. The applicant has provided a justification for this view and has set out a range of additional measures that could potentially be taken to reduce night-time noise.

The applicant states that the main residual source of noise would be from the top drive of the drilling rig, which would be around 40m above ground level. The applicant has adopted a procurement specification which sets tight noise limits, the proposed installation is based on the quietest available plant. The next step for mitigation would be the erection of an enclosure around the drill rig, but the applicant considers that this would be very costly and would pose unreasonable burden upon them. The applicant states that fitting an enclosure around the top drive would only reduce the noise emitted by the operation by around 1dB which would not be perceptible to the closest receptors and would compromise rig efficiency, thereby potentially extending the duration of drilling and coring. Enclosing the rig unit would also cause a number of health and safety issues and visual intrusion. The applicant indicates that the cost of full enclosure could be as much as £13 million.

The applicant has also considered changes to working practices such as ceasing of drilling at night, but considers that there would be safety and operational issues from prolonging the period the hole is left open. Drilling time could be extended by around 67%. The applicant states that this would add around £1.5 million to the overall cost of the project. Restricting the rotational speed of the drill at night has also been considered, again this would increase the duration of the drilling operation by around 34% and cost in region of £0.7 million.

The applicant refers to the appeal case relating to hydrocarbon exploration at Preston New Road in Lancashire (Ref. APP/Q2371/W/15/3134386). In this case, the developer proposed a partial 7m high enclosure scheme. The Inspector noted that full enclosure would be costly and would lead to increased visual impact, however, the partial enclosure was deemed to be necessary and a reasonable burden on the developer. Other than this improvement, the Inspector did not consider that there was available evidence in this case that any other specific noise reduction scheme could achieve further improvements without placing unreasonable burden on the developer. The applicant therefore contends that as this application is for a much shorter period of time, approximately 10 weeks, (the drilling periods at Preston New Road were 8 and 6 months in duration) and is not directly comparable to the Preston New Road scheme, further mitigation on the Bramblemoor Lane site would be an unreasonable burden.

In relation to ground vibration the applicant does not anticipate that impacts would arise. The applicant states that the drills proposed to be used are rotary bored only and therefore impart relatively small amounts of energy into the ground. The applicant considers that the impact of ground vibration from the drilling rig would be negligible.

#### *Officer Assessment*

##### *Day-time and Evening noise*

The results of the applicant's assessment of noise indicate that during Stage 2 (drilling and coring), daytime and evening noise levels should be below the level recommended in the PPG of background plus 10dB(A). Therefore, I agree with the views of the JEHS that a planning condition setting a noise of limit of no more than 10dB(A) above background to be reasonable in this case. Based on the applicant's predicted noise levels, a noise limit of 47 dB LAeq, 1h (free-field) for daytime and 43 dB LAeq, 1h (free-field) for evening would be appropriate. I do not consider the applicants request for the noise limit to set at 55 dB(A) during this stage to be justified or in accordance with the guidance set out in the PPG.

However, the applicant's assessment of daytime noise for Stage 1 (site development and establishment) indicates that noise would be higher than in Stage 2 (up to 65dB LAeq, 1h Façade). The applicant would not therefore be able to comply with a noise limit set at 10dB (A) above background during this Stage or potentially even the upper limit set out in the PPG of 55 dB (A). The applicant is of the view that noise during Stage 1 would meet the B5228 threshold of 65 dBLAeq and is therefore acceptable. BS5228 provides recommendations for methods of noise control relating to construction and open sites. An 'open site' is defined as significant outdoor excavation, levelling or deposition of material. BS5228 describes noise control for surface mineral extraction sites, however, a mineral site would have to meet the definition of an 'open site'. In the Preston New Road appeal case the Inspector concluded that the site did not meet to the test of being an 'open

site' and BS5228 did not provide specific guidance for determining appropriate noise levels for sites of the type proposed in that case. The same reasoning could be equally applied to the proposal at Bramley Moor Lane. It would not meet the definition of an 'open site', but there are physical constructional elements of the development in Stage 1 and I understand the applicant's reasons for considering it as a construction site in terms of BS5228. However, I am of the view that the relevant guidance for the setting of noise limits for this proposal is contained in the PPG.

The PPG allows for an increased temporary daytime noise limit of up to 70dB(A), to facilitate essential site preparation subject to certain criteria. Importantly, it must be clear that the essential preparation works would bring about longer-term environmental benefits. A description of the works that are proposed during this stage is set out earlier in the report. The applicant's assessment of noise for this stage does not provide information on the noise levels that would be generated by a specific operation or the duration over which they occur. However, noise emissions typically would vary on a day to day or even an hourly basis depending on what is happening on the site, some activities will generate significantly more noise than others. It is unlikely that construction activities would be excessively noisy for the whole duration of this stage. The applicant's noise calculations assume all plant and machinery would be running 100% of the time and is a worst case scenario. Whilst it is not clear that all of the works proposed during this stage would be for environmental benefit, I accept that many aspects of the preparation works such as the stripping of soils, their preservation in bunds which would also serve as noise attenuation and screening bunds, the installation of a protective site liner, drainage and monitoring boreholes, would have environmental benefits.

The application site is located in a tranquil area, the proposal would introduce an industrial type activity into the area and increase the noise environment for a temporary period. There would be periods, particularly during Stage 1, when adverse noise during the daytime would be experienced, however, I do not consider that this would be significant and would not warrant the refusal of the application. There is a difference in opinion as to what is the appropriate standard for site construction noise in Stage 1 should be and I am mindful that there would be periods when the daytime limits set out in the PPG would be exceeded. Further information on noise levels from specific activities in Stage 1 would have helped to clarify the circumstances when the temporary increased noise limit of 70dB(A) should be applied.

However, on balance, I am of the view that the aural amenity of residents during the daytime and evening could be adequately protected through the imposition of the conditions. I would recommend, that in the event the Planning Inspector is minded to grant planning permission for the development, that conditions are imposed setting a daytime and evening noise limit of no more than 10dB(A) above background, to apply to all stages



of the development and a temporary noise limit of up to 70dB(A) for essential site preparation, in accordance with the PPG guidance.

### Night-Time Noise

I now turn to the consideration of night-time noise during the drilling and coring (Stage 2) which is a particular concern of the JEHS and residents as has been described earlier in this report. It is inevitable that this type of operation using deep drilling will increase the noise environment in an area. The most significant source of night-time noise would be from the drilling rig that would operate 24 hours a day for approximately 10 weeks.

The typical modal background noise levels in the vicinity of the site at night are low at 24dB(A). During Stage 2, night-time noise levels would exceed this level by 13 to 17 dB(A) at the noise sensitive receptors. In an area of tranquillity, this is a significant change in the noise environment. The impact of noise at night would be adverse; it would be noticeable and likely to cause annoyance that may result in complaints.

The emphasis of the PPG is for noise limits to be set to reduce to a minimum any adverse impacts, without imposing unreasonable burdens on the mineral operator, and in any event to not exceed an upper limit of 42 dB(A), which is the limit that the applicant has requested for this proposal. A limit below this, the applicant considers, would place unreasonable burden upon them as has been described above. What constitutes unreasonable is not defined in the PPG but the intention of the guidance is not to allow the operator to generate higher levels of noise at the expense of the amenity of the occupiers of noise-sensitive properties. The applicant in the submission of the appeal has provided a "justification of unreasonable burden" which includes an estimate of costs relating to further mitigation measures. The figures are substantial, however, the applicant has not provided any context for these calculations, from which one might understand how significant they are in the overall scheme budget (which is not known). Without this context the calculations are of little assistance in judging whether or not such a condition would be an unreasonable burden.

The Noise Policy Statement for England (NPSE) advises that adverse effects on health and quality of life cease to arise only below the threshold of the LOAEL. The NPSE does not set a value for the LOAEL as this will vary for different situations and sources of noise.

In the Preston New Road appeal case, the Inspector concluded that the 42 dB(A) upper limit in the PPG could not be regarded as representing the LOAEL, with which I agree in the context of this proposal. The wording of the PPG reflects the assumption that in principle, adverse effects can occur below that limit otherwise the requirement to reduce to a minimum below that level would not be required.

The WHO - NNG provides the most recent WHO guidelines in respect of night-time noise. The WHO-NNG recommends LOAEL is set at 40dB L<sub>night</sub>, outside but the site specific circumstances of each case must be considered.

In this case, I do not believe that setting a noise limit of 42 dB(A) would meet the requirement in the PPG to reduce to a minimum any adverse impacts or the second aim of the NPSE to mitigate and minimise adverse impacts of noise. The applicant's noise assessment predicts noise levels at NSR's at night ranging from 37 to 41 dB LAeq, 1h (free-field). Having considered the specifics of this case, and the duration over which the impacts would occur, I do not consider it unreasonable to recommend a night time noise limit of 40 dB LAeq, 1h (free-field). A night-time limit set at this level would represent something of a balance between the requirement to reduce the adverse impact of night-time noise to a minimum, and without imposing unreasonable burdens on the mineral operator. It would accord with the WHO-NNG and with the Inspectors findings in the New Preston Road case regarding the LOAEL. Overall, whilst the impact of night time noise would be adverse, in view of the relatively short time scale over which the impacts would occur, with conditions including conditions to secure the limits for night-time and day-time noise as suggested above, I do not consider that it would be so significant to warrant the refusal of the application.

I do not consider the impact of vibration from this development is likely to be significant.

In reaching these conclusion, I have taken into account the requirements of DDMLP policies MP1, MP3 and MP13 and the guidance in the PPG. I would recommend that, in the event that the Planning Inspector is minded to grant planning permission for the development, conditions are imposed, which set strict limits on noise levels, as I have described above, and also to control the working hours at the site and require the implementation and adherence to the site's noise mitigation plan.

### **Air Quality and Dust**

Local residents are particularly concerned about emissions to air and dust issues from this proposal, and many have raised concerns about the potential impacts on health. Emissions to air would potentially arise from the movements of vehicles, exhaust fumes from vehicles and equipment, dust and potentially hydrocarbon release (methane) during the drilling period. This type of development can also give rise to dust through the movement of soils, construction of the perimeter bunds, vehicles moving around and in and out of the site and through other construction activities, which needs to be mitigated and controlled.

The NPPF at Paragraph 120 advises that in order to prevent unacceptable risks from pollution, planning decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of

pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account. Perceived health fears are a material planning consideration and the importance of the role of planning in promoting healthy communities is set out throughout the NPPF. Paragraph 144 of the NPPF states that when determining planning applications LPAs should ensure, in granting planning permission for mineral development, that there are no unacceptable adverse impacts on human health.

The applicant is of the view that the proposal would result in emissions to air similar to any construction site and the percentage increase in traffic flows for this development does not trigger the assessment thresholds in current guidance and this includes the section of the proposed access route which passes through the Sheffield Air Quality Management Area (AQMA). Localised emissions to air would be caused by on-site generators and the drilling rig which would likely include nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), particulate matter less than or equal to 10 micrometres (PM<sub>10</sub>) and particulate matter less than or equal to 2.5 micrometres (PM<sub>2.5</sub>), carbon monoxide (CO) and volatile organic compounds (VOCs). The applicant states that efficient equipment would be used and emissions would be reduced as far as possible, the equipment and rig would be only on site for between 3 to 6 months. The applicant states that as the well is to be cored only, there would be limited potential for methane to be released during the drilling process and any emission that do occur would be short term, small in volume and are not expected to have material impact on local air quality. The applicant is of the view that dust from site preparations, construction and vehicle movements would be controllable through standard dust control measures.

The EA is the key regulator with respect to emissions to air and it has not raised any objections. The level and type of emissions will be addressed by the EA in its corresponding permit assessments. The JEHS would also have an on-going key role about the concerns relating to ambient air quality issues, it has not raised any air quality related objections to this proposal. PHE is also of the view that the proposals are unlikely to be source of emission to air provided that the Environmental permitting regulations are followed. I do not consider air quality to be significant issue for this proposal.

There is potential for dust generation from this proposal, particularly during the site construction phase of the development. However, I am of the view that the level of ground disturbance would be modest when compared to some other types of mineral extraction operations and therefore, I would expect the potential for dust emissions to be reduced, although dust emissions could be an issue for some specific operations. The generation of dust from the operations is likely to be greatest during the construction phase and, in particular, during the soil stripping and storage part of the development. I am of the view that the potential impact of dust during the construction phase can be controlled so as not to cause any significant impact. Once the site was

developed and operational, and the access road surfaced, I do not consider that there would be any significant dust generated by the development. However, I agree with the JEHS that a dust management plan should be required (by condition) to be submitted and approved should planning permission be granted.

Overall, I am satisfied that the proposal would not give rise to any significant impact on air quality and, with appropriate conditions, any dust impact would not be significant. The development would then accord with the NPPF and policies MP1, MP3 and MP13 of the DDMLP and Policy GS6 of the NEDLP in this respect. I would, therefore, recommend, in the event that the Planning Inspector is minded to grant planning permission for the development, that conditions are imposed to require the implementation of the proposed dust mitigation measures and the dust management plan is required to be submitted to and approved by the MPA.

### **Traffic and Highway Impacts**

The road transport associated with mineral development can potentially impact on local amenity, cause public safety concerns and environmental problems, such as noise, vibration, and air pollution. Policy MP1 of the DDMLP requires regard to be given to *“the transport implications, and in particular the scale and nature of traffic likely to be generated, and its implications for site access, highway capacity, road safety, and the environment generally.”* Policy MP5 of the DDMLP specifically relates to the transport of minerals, in the case of this proposal no mineral would leave the site. Paragraph 32 of the NPPF states that *“development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”*

The applicant's assessment of traffic and transport considers the access to the site and the impact of the proposal on traffic flows and highway safety. A route assessment was undertaken to determine the proposed routing of vehicles to and from the site and swept path assessment for the site access. These assessments conclude that whilst traffic management measures would be required along this route, the range of vehicles travelling to the site would be able to gain access along the road network. The effect of traffic generated by the proposal was also assessed, against the existing baseline. The peak vehicle movement's generated by the proposal would 70 movements (which include 60 HGV's) which would occur during the Stage 1 (site development and establishment). The applicant concludes that the maximum impact of the development traffic amounts to an approximate 1% increase over baseline. This impact would occur on the B6056 in the vicinity of the site between its junction with Bramley Moor Lane and Snowden Lane. The maximum percentage increase in HGVs for this section of the route is assessed as being approximately 17%. The applicant indicates that a Route Management Strategy (RMS) and a Traffic Management Plan (TMP) would be developed and implemented, in consultation with the local Highway Authority. The

applicant has submitted a draft TMP with the application and proposed certain mitigation measures where considered necessary.

The concerns raised in the letters of representation about the impact of additional traffic in the area as a result of the development are acknowledged.

The most significant increase in traffic from the development would occur during stages 1 and 2 which, in the context of the overall timescale of the scheme are relatively short in duration. The increase in HGV's during the peak period of the development would be significantly higher but it would be for a limited number of days. Traffic movements during Stage 3 (maintenance), which is the longest phase of the development, are low. The proposed route to the site is the longest of those that were considered, however, it contains the least sensitive number of locations and built up areas. The Highway Authority consider this route to be acceptable in principle but it is noted that additional traffic management measures would need to be secured at certain points along the route. The Highway Authority is also of the view that there is no evidence to suggest that the impact of the proposed development on the highway network is likely to be severe in terms of either safety or congestion and such have no objection to the proposal, subject to the prior completion of a Section 106 agreement requiring an obligation to provide for monitoring of the Highway and repair in the event of damage, a condition to require the submission, approval and implementation of a full traffic management plan and conditions relating to highway safety. The Highways Agency also does not object to the proposal.

There are local concerns about the impact of traffic on amenity and local congestion, however, I am satisfied that it could be absorbed into the capacity of the existing road network. The most significant impacts would short term and there would be no residual impact once the development was complete. I do not find the development to be unacceptable in terms of traffic and highway safety, and the proposal would not raise conflict with policies MP1, MP3, MP4 and MP13 of the DDMLP and T2 of the NEDLP. The potential amenity impacts of noise, vibration and dust from HGV movements have been considered above.

### **Archaeology and Cultural Heritage**

The heritage assets in the vicinity of the site area described in the description of site and surroundings above. The NPPF at Paragraph 128 states that LPAs *"should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance"*. It then goes on to say *"where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to*

*submit an appropriate desk-based assessment and, where necessary, a field evaluation."*

The applicant has assessed the potential cultural heritage impacts, both archaeological and built heritage, from the proposal through a desk-based study and a geophysical survey. The study area covered a 2km area from the site boundary. The applicant considers that the vast majority of assets in the study area would not be affected by the proposal. The applicant concludes that there is a low potential for low value remains of mining/coal extraction (early medieval through to the modern era) within the site boundary, however, the possibility of other archaeological remains cannot be totally ruled out. The applicant also acknowledges that there may be short term impacts on the settings of some listed buildings, including the Grade II\* West Handley Hall.

The applicant's study suggests that the archaeological record is likely to be dominated by remains of industrial activity associated with coal extraction. The line of an early mineral tramway (pre-1855) is recorded in the Historic Environment Record (HER) approaching the site (HER 4935), which is linked to the former Bramley Moor Colliery approximately 200m to the east. The HER record also suggests that there was a colliery on the application site in the mid-19<sup>th</sup> Century, the applicant's study does not reference this. The geophysical survey identifies a number of features interpreted as 'bell pits' (early shallow mineral workings) which can be medieval or early post-medieval in date, but it is possible that these could represent deeper shafts associated with the possible 19<sup>th</sup> Century colliery. Linear features may represent remains of the early colliery tramway. The potential for archaeology pre-dating the industrial period appears to be low. The applicant has provided further archaeological clarification and is of the view that much of the identified former extractive industry interest would be outside of the development area and there would be minimal interaction with the identified archaeology on the site. The applicant is of the view that an archaeological watching brief for works in the vicinity of the identified features should be undertaken.

There is potential for archaeological remains to be present on this site that may be uncovered as part of the proposed works and from the evidence that has been provided these may be of higher value than the applicant states. I would therefore advise that in the event that the Planning Inspector grants planning permission for the development that the moderate archaeological potential of the site is addressed through a conditioned scheme of archaeological work.

The Moss Valley and West Handley Conservation Areas are located nearby and there are listed buildings in relatively close proximity to the site. Whilst there would be no direct impacts on these heritage assets, visually there will be changes to the landscape which would temporarily impact on their setting. Overall, I am of the view the impact on these assets would be minor and short

term. The significance of these assets are unlikely to be affected by the development.

In conclusion, subject to the recommended condition to protect the archaeological interest at the site, I do not consider it likely that the development would have any significant impact on any historic feature and it would accord with policies MP1, MP3, MP4, MP7 of the DDMLP and policies BE6 and BE9 of the NEDLP and the NPPF in this respect.

### **Water Impacts**

Policy MP4 of the DDMLP includes water resources as an 'interest of acknowledged environmental importance'. The policy states that mineral development proposals, which seriously damage these interests, will not normally be acceptable, particularly where development would adversely affect the quality and quantity of water resources, water supply, land drainage or flood protection interests, or create water pollution problems. The NPPF at Paragraph 103 states that "when determining planning applications, LPAs should ensure flood risk is not increased elsewhere."

The nearest surface watercourse is located approximately 0.8km from the site. The site is located in flood zone 1 which has a low probability of flooding. The site is not located on a Principal Aquifer, and is not located within a groundwater Source Protection Zone (SPZ). The site is located within an area containing the Pennine Lower Coal Measures secondary aquifer.

The applicant has assessed the potential impacts of the proposal on nearby watercourses and water quality, flooding and the hydrogeological effects for this proposal. The applicant has also assessed the potential impact from surface water and flooding for all stages of the development and provided details of mitigation measures that would be built into the proposal. The applicant's assessment concludes that there would be a neutral effect on the water quality of nearby watercourses as there is a lack of hydrological connectivity between the site and the watercourses. It was also assessed that there would be a neutral effect on pressures on watercourses and on recreational uses in the surrounding area. The site has a low risk of flooding which has been assessed as negligible.

The applicant has also assessed the potential effects on the groundwater quality of the underlying bedrock aquifers and other sensitive receptors both within, and surrounding the site for all stages of the development and provided details of mitigation measures that would be built into the proposal. There is a potential risk of contamination to groundwater and of local watercourses from the type of operations proposed, for example from leakage of drilling fluids. The applicant states that the proposed drilling method has been frequently implemented in the UK and the barrier mitigation and monitoring would minimise this risk. The application describes the measures to prevent groundwater/aquifer pollution from spillages and the handling/management of drilling fluids and cuttings, and the escape of drilling fluids, gas and other

fluids into groundwater. These include well and borehole design, casing of the borehole, the use of drilling fluids in accordance with HSE guidance, as well as the types of fluids to be used. It also describes measures to prevent pollution of groundwater or surface water from leaks from construction vehicles or onsite tanks. The applicant's conclusions are that proposal would have a neutral effect.

The EA is the regulatory body with responsibility for the protection of water resources including groundwater aquifers and ensuring appropriate treatment and disposal of mining waste, and these aspects would be separately controlled by the EA through various permitting requirements. The final design of the well and borehole casing would also require approval from the EA and the HSE before drilling could commence on site. Neither, the EA or the HSE has raised any objections to the proposal. The EA and the HSE have both set out in their responses details of other permits, approvals and notifications that would be necessary before drilling could commence on site. The LLFA is responsible for surface water and flooding, and it is noted that its review of the proposal has not suggested there is any significant risk from surface water flooding.

I am therefore satisfied that any potential for the development to provide a source of pollution to the water environment would be adequately regulated and mitigated. I do not find any substantive hydrological, hydrogeological or flood risk argument to warrant refusal. In reaching this conclusion, I have taken into account the requirements of DDMLP policies MP1, MP3, MP4, and MP13, NEDLP policy CSU4, the NPPF and the guidance in the PPG.

### **Light Pollution**

Artificial lighting on any new development has potential for impacts from lighting on local amenity and on ecological interests. I note the concerns of local residents regarding the impact of the proposed lighting on this site at night. The applicant has provided details of the type of lighting that is proposed to be installed at the site which has been described above. Lighting would be required 24 hours a day for approximately 3 months during the drilling and coring stage (Stage2) of the development. It would also be required at night for short periods during stages 3 and 4 in the event that a drilling rig is brought back on to site. For the other stages lighting would be required for hours of darkness, during the standard proposed working hours 0700 hours to 1900 hours, in the winter months.

The applicant has provided a lighting assessment for the drilling and coring stage. The assessment identifies the residential and ecological receptors that may potentially be affected by obtrusive light from the site and sets out the relevant criteria and guidance thresholds for residential receptors from the Institute of Light Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Lighting, GN01, dated 2011. The residential receptors are the same as those identified for noise. The site has been assessed as being



located in a rural area with a low district brightness lighting environment (Zone E2 from the ILP guidance). For each zone the ILP guidance sets out obtrusive lighting limits for exterior lighting installations, which are intended to support decision makers in establishing whether artificial lighting is detrimental to local amenity or a potential statutory nuisance.

The permitted Upward Lighting Ratio (ULR) (i.e. 'sky glow' limit) for lighting installations is 2.5%. The applicants modelling results indicate that the developments ULR would be 2.0% and would not therefore exceed the ILP criteria. Levels of light trespass from the site at residential receptor locations have been modelled and predicted at a height of 3m (first floor window) at each receptor. The modelling indicates that the proposed development would not exceed the light trespass criteria for post curfew hours (2300 hours to 0700 hours). The level of light intensity associated with each individual light source for the site when viewed from each residential receptor location has also been modelled. The modelling results indicate that the development would exceed the light source intensity criterion at two properties (NSR1 and NSR4).

The light source intensity predicted at receptors NSR1 (Ten Acres) and NSR4 (Ash Lane Farm) is higher than desirable when compared to the criteria. The applicant has assessed the screening that would be achieved by trees, vegetation and intervening structures to these properties and set out additional mitigation measures such as reducing the operational lighting area, use of baffles and shields, positioning and orientation of lighting. With these measures the applicant is of the view that the criteria and guidance thresholds would be met.

The ecological receptors are the hedgerows to the east and west of the site and the hedgerow offset from the site to the south, which have previously been identified as potential habitat for foraging and commuting bats. The applicant's assessment of the likely effects of light on bats takes account of guidance from the Bat Conservation Trust that suggests that low level lighting should be as directional as possible and be below 3 Lux at ground level. Vertical illuminance levels (in lux) have been modelled at various heights along the hedgerows, the modelled light levels exceed the relevant criteria and mitigation would therefore be required, the most likely form of this mitigation would be baffling. The applicant indicates that with baffles the maximum lux levels at hedgerows would be below the recommended 3 lux criterion.

Whilst there is potential for some short term impacts from lighting on residential amenity and on ecological receptors, I am satisfied that with good design this could be minimised to an acceptable level. However, I agree with the JEHS that in the event that the Inspector grants planning permission for the proposal a detailed lighting scheme, covering all stages of the development, should be required to be submitted and approved and secured

by a planning condition. Subject to the recommended condition, I am satisfied that the impact of lighting would not be significant and would not conflict with the NPPF and policies MP1, MP3 and MP13 of the DDMLP and Policy GS6 of the NEDLP in this respect.

### **Land Contamination, Land Stability and Mine Entries**

The applicant has assessed the potential for land contamination by reviewing historical mapping. The site has a history of agricultural use, the historical mapping does not indicate that there have been any potentially contaminative historical land uses on the site or in the immediate vicinity. In this respect I note that the EA, which is a key regulator for land contamination issues for this type of development, it has not raised any such concerns for this proposal. The JEHS has also not raised any concerns in this respect. Contamination of the water environment from the proposal has been considered above.

Some residents have expressed particular concerns about ground movement from the drilling operation and the collapse of old mine workings.

The OGA has the responsibility for issuing PEDL and also giving consent to drill under those PEDL, once other permissions and approvals are in place. It also has the responsibility for assessing risk of and monitoring seismic activity. The HSE also regulates the safety aspects of this type of development, including responsibility for ensuring the appropriate design and construction of well casing for any borehole. I am therefore satisfied that any such seismic or safety issues would be identified and satisfactorily addressed through these regulatory regimes.

This part of Derbyshire has been subject to previous coal mining activity and coal is believed to be present under the site. I am also aware that records held by the Coal Authority records that there is a mine shaft close to the eastern boundary of the site. The Coal Authority has been consulted on the application and have not raised any objections. In the event that any unrecorded coal mining hazards were identified they would need to be reported to the Coal Authority.

Overall, it is considered unlikely that there would be a significant effect on the environment in terms of land contamination, ground movement or land stability or on mine entries and the proposal would not conflict with policies MP1 and MP13 of the DDMLP or GS6 of the NEDLP.

### **Climate Change**

Effective spatial planning is considered to be an important part of a successful response to climate change as it can influence the emission of greenhouse gases. Guidance within the PPG states that LPAs *“should ensure that protecting the local environment is properly considered alongside the broader issues of protecting the global environment. Planning can also help increase*

*resilience to climate change impact through the location, mix and design of development.”*

Relevant climate change legislation includes the Climate Change Act 2008 which establishes a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels. The Climate Change Act also requires the government to assess regularly the risks to the UK of the current and predicted impact of climate change; to set out its climate change adaptation objectives; and to set out its proposals and policies for meeting these objectives.

The NPPF at paragraph 93 states that *“planning plays a key role in helping to shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change and supporting the delivery of renewable and low carbon energy and associated infrastructure.”*

Development as proposed at this site, and the associated vehicle movements, would inevitably represent a source of greenhouse gas emissions. Mineral development can produce significant greenhouse gas emissions but this will vary depending on the type of mineral development. It is also likely that vehicular emissions from vehicles associated with the development would also be a relatively significant factor in the generation of such emissions.

The applicant is of the view that the potential contribution to the national greenhouse gas emission would be negligible, that emissions to air associated with the proposal are anticipated to be limited and primarily relating to those from vehicles and drilling equipment. The applicant considers that these would generally be small and not significant. The applicant considers that there would be minimal potential for methane to be released to the atmosphere as a result of the development.

Climate change can be mitigated by reducing emissions. For mineral development, locating sites where the distance that vehicles travel is minimised can help to reduce emissions. Developments can also help to reduce emissions through the careful design, construction and operation of facilities, enabling energy efficient low carbon schemes for the winning and working minerals. The states that there is relatively little an exploratory well can do to minimise its impact on the causes of climate change. The applicant also states that the preferred access route is the most appropriate and this would help to minimise vehicle emissions.

Part of the UK Government's policy support for exploration and development of shale gas clearly relates to lower carbon emission characteristics which gas is recognised to have as an energy source, compared to other types of 'fossil fuels' such as coal. This proposal does not involve gas extraction, although whatever information about shale gas might be gained would be available to

feed into future decisions to propose or not propose shale gas developments. Nevertheless any decisions on any future planning applications for such proposals which may come forward would need to be made on their own merits. I do not consider any wider issues of climate change relating to such possible future proposals can have much bearing on the planning assessment of this proposal.

The proposal will inevitably be a contributor to greenhouse gas emissions and this could be minimised through careful site design. I do not consider that greenhouse gas emissions from the development would be so significant as to warrant refusal of the application.

### **Site Restoration**

It is proposed to restore the site back to agricultural use following the completion of the development and, in principle, this is considered to be acceptable. The applicant indicates that the land would be restored back to its original profile has provided outline restoration details. However, I consider that the specific details of the restoration and related aftercare should be ascertained at a suitable time during the life of the development through the submission to and approval by the MPA of a restoration scheme. I would therefore recommend that if planning permission for the development is to be granted under the appeal, suitable conditions requiring the submission and approval of a detailed restoration scheme and an aftercare scheme covering a five year period after restoration of the site are imposed. Subject to the recommended conditions I am satisfied that the proposal would accord with the NPPF and policy MP10 of the DDMLP.

### **Cumulative Impacts**

The potential importance of cumulative effects from development is recognised in the NPPF. It states, at Paragraph 120, that *“to prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account.”* At Paragraph 144 of the NPPF, it states that *“When determining planning applications, local planning authorities should ..... take into account the cumulative effect of multiple impacts from individual sites/and or from a number of sites in a locality.”*

Policy MP4 of the DDMLP is also instructive with regard to the consideration of cumulative impacts. It advises that one of the aspects for deciding whether a development was acceptable or not would be where it *“would result in an unacceptable cumulative impact on the environment of an area, either in relation to an individual proposal having regard to the collective effect of the different impacts, or in relation to the effects of a number of mineral developments occurring either concurrently or successively.”*

The applicant has not provided a cumulative impact assessment for this proposal, but in its planning statement states in respect of the collective effects of different impacts of the proposal, that it does not consider that the proposal would give rise to any adverse individual effects that cannot be suitably mitigated. The applicant has not identified any specific developments with which there may be cumulative impacts. In terms of wider cumulative effects the applicant states that they are not aware of any other major mineral developments that either have planning permission or are being applied for, occurring either concurrently or successively, that when combined with this proposal and any future proposal of the applicant in the area would have cumulative impacts.

This part of Derbyshire has a long mining history and there has been previous coal mining activity nearby. Considering the time that has lapsed since the closure of previous mining sites in the area, I do not consider that there would be likely to be any successive cumulative effects as a result of this proposal. However, there are sites within the area at Eckington (Eckington Drift Mine) and Renishaw (ash recycling and landfill at Station Yard, Renishaw and Renishaw coated stone plant) with extant planning permissions for mineral development or mineral related development. The applicant company has also submitted two planning applications to Rotherham Metropolitan Borough Council for shale gas exploration that are located approximately 10km to 17km from the site. There are also sites in Nottinghamshire that have recently been granted planning permission for this type of development. The applicant has indicated in the application that the site at Bramblemoor Lane may be used as listening well in the event that another well elsewhere is hydraulically fractured. There is, therefore, in my opinion the potential for simultaneous cumulative effects from concurrent development, in the event that they are taking place at the same time. However, the likely timing of those, assuming the permissions are to be granted for them and they are to be proceeded with, is highly uncertain. Anyhow, considering the limited duration of the proposed operation and the distances by which those sites are separated from this application site, I do not consider that simultaneous cumulative effects would likely to be significant.

I note the concerns that have been raised in the letters of representation about possible further phases of shale gas development and potentially hydraulic fracturing. However, planning permission has not been sought for further phases of shale gas development at Bramblemoor Lane, and no hydraulic fracturing would be taking place under this proposal (nor under the proposals in the applications which have been made to Rotherham MBC). I therefore find that at this time there are no potential cumulative impacts in relation to hydraulic fracturing, or further phases of shale gas development generally, to consider.

Overall, I do not consider that there are any individual impacts for this proposal that would combined to an unacceptable extent, or that there would be any unacceptable would be any significant successive or simultaneous cumulative effects for this proposal. I am satisfied that the proposal would not conflict with the NPPF and policies MP4 of the DDMLP in this respect.

## **Other Considerations**

### *Public Health*

As Paragraph 144 of the NPPF recognises consideration should be given to any impacts of mineral development upon human health. The applicant states that it has assessed the potential health impacts in its environmental report in relation to highway safety, noise and vibration, potable groundwater supply impact, surface water quality and flood risk and land contamination and overall does not consider that there would be any significant effects on human health.

I note the concerns in the letters of representation about the potential effects on human health and that the proposal is causing stress and anxiety to people living in the area. PHE and the Director of Public Health have been consulted on the application and neither has raised any points suggesting that any significant general risk to public health concerns would be generated by this proposal. The JEHS observations about night-time noise and the potential for sleep disturbance to residents in the locality has been considered in the noise section of this report above. In the event that the inspector is minded to grant planning permission with the recommended noise conditions I consider these impacts would be essentially temporary and minimised to acceptable levels. The site would be subject to other permitting requirements, the site would be regulated and monitored and this would limit any potential public health impacts. Overall, I do not consider that there would be any significant impact on human health from this proposal.

### *Economic Factors*

I acknowledge the concerns raised in representations about a lack of local economic benefits. This is a proposal for an exploratory mineral development and the economic benefits at this stage would be limited. The proposal would generate employment, although I anticipate that much of the workforce involved in this project would be either contractor based or come from the developers existing workforce, however there may be some potential for local employment. There would also potentially be indirect expenditure and employment for example from wages to employees, spending on local goods and services, the employment of subcontractors, hauliers and environmental consultants and energy use. There are also potential wider economic benefits from developing shale gas as an energy source, however, at exploration stage this cannot be attributed any substantial weight.

The proposal may also potentially result in some economic disbenefits. Local residents are concerned about the potential impacts on businesses, tourism

and leisure services in the area should this proposal proceed. This type of development, like any mineral development, could potentially adversely impact on the perception of an area and negatively impact on investment into an area. Overall, I am of the view that there would be some minor economic benefit from proposal however this needs to be balanced against the potential for economic disbenefit. On balance, considering the duration of the development, I do not consider any net economic benefit or disbenefit that the development might cause is likely to be particularly significant.

#### *Hydraulic Fracturing*

Concerns have been raised about the possible use of hydraulic fracturing (fracking) as the site develops. The application does not seek permission to use this technique so it is not a consideration for this application.

#### *Legal agreement*

In the event that the planning inspector is minded to grant planning permission for the proposal I recommend that the proposed vehicle route to the site is covered through a legal agreement by a planning obligation under the provisions of Section 106 of the Town and Country Planning Act 1990. I am also of the view that the agreement should also require the provision of a site liaison committee throughout the life of the development, to promote effective communications between developer and local communities affected by the development including consideration of any local concerns in relation to the development that may arise.

### **Conclusion**

There is support from the Government for this type of development, as a means of securing indigenous energy supplies and reducing the UK's reliance on imports whilst generating energy with a 'low carbon footprint'. The principle of this development is supported by the NPPF, the PPG and the Government's Energy Policy. The site is located in the open countryside and in the Green Belt, however, I am satisfied that the development in the proposed location would not be unacceptable. I have assessed the potential environmental impacts of the development and I find there would be no significant impacts or conflict with development plan policy that would warrant an objection from the MPA to a grant of permission under the appeal, provided that a comprehensive set of measures to control and limit the impacts of the development on the environment and local amenity with respect to noise, dust management, ecology, archaeology, lighting, traffic routing and highways safety, landscaping, restoration and aftercare as outlined above are secured through a planning obligation by section 106 legal agreement and imposition of conditions to which the permission is subject.

**(3) Financial Considerations**      The correct fee of £8,037 has been received.

(4) **Legal Considerations** This application was submitted to this Authority as the Mineral Planning Authority under Part III of the Town and Country Planning Act 1990. Because the application is now under appeal, it will be determined on behalf of the Secretary of State.

I do not consider that there would be any disproportionate impact on anyone's human rights under the European Convention on Human Rights as a result of this permission being granted subject to the conditions referred to in the Officer's Recommendation.

(5) **Environmental and Health Considerations** As indicated in the report.

### **Other Considerations**

In preparing this report the relevance of the following factors has been considered: prevention of crime and disorder, equality and diversity, human resources, property, social value and transport considerations.

(6) **Background Papers** File 4.2509.3  
Application documents dated 8 May 2017, with additional information received 15 August, 18 August, 12 September, 15 September, 2 October, and 1 December 2017 from Turley Associates Limited, on behalf of INEOS Upstream Limited.  
Letters and e-mail correspondence from:  
North East Derbyshire District Council dated 12 July 2017.  
Joint Environmental Health Service dated 3 August and 23 November 2017  
Bolsover District Council dated 8 June and 30 November 2017.  
The Coal Authority dated 13 June and 22 November 2017.  
The Environment Agency dated 22 June and 24 November 2017.  
Yorkshire Water dated 30 May and 4 December 2017  
Sheffield City Council dated 11 August 2017.  
Highways England dated 13 June, 9 August, 14 November and 30 November 2017  
Dronfield Town Council dated 13 June 2017.  
Unstone Parish Council dated 22 June 2017.  
Eckington Parish Council dated 28 July 2017.  
Friends of the Earth dated 10 August 2017.  
Campaign to Protect Rural England-Friends off the Peak District dated 10 August 2017  
Woodland Trust dated 2 August 2017  
Derbyshire Wildlife Trust dated 31 June, 18 October and 15 December 2017.  
Natural England dated 20 June, 5 December 2017.  
Historic England dated 30 May and 21 November 2017.  
Health and Safety Executive dated 5 June 2017.  
Public Health England dated 9 August and 12 December 2017  
Lead Local Flood Authority dated 7 June 2017.

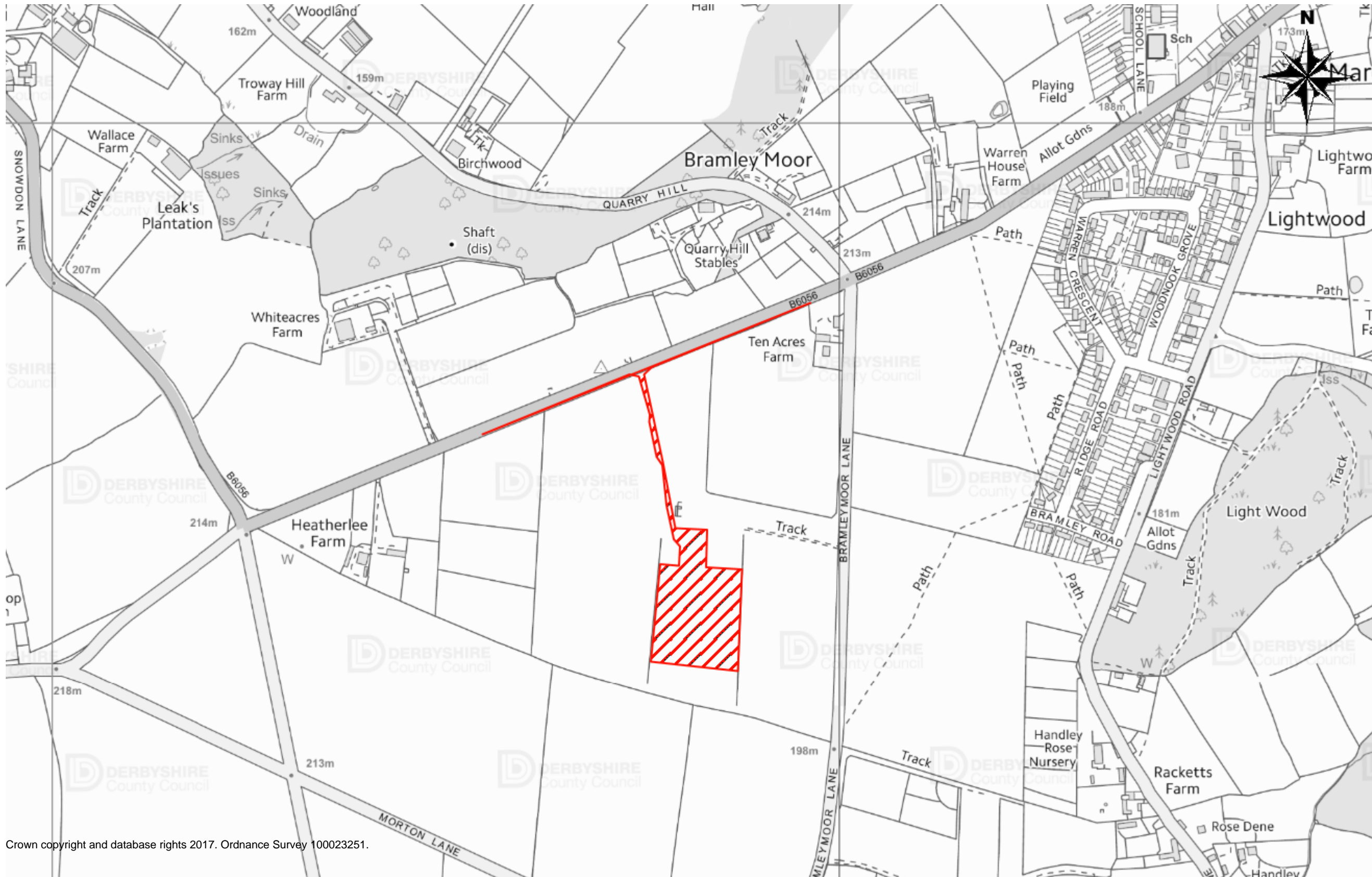


Director of Public Health dated 11 August 2017.  
The Highway Authority dated 9 August and 14 November 2017.  
Councillor Charles dated 26 July 2017.  
Letters of Representation – various dates.

(7) **OFFICER'S RECOMMENDATION** That the Committee resolves to **authorise** the Strategic Director – Economy, Transport and Environment, to arrange the presentation of a case, on behalf of the Council as Mineral Planning Authority, for the appeal to the Secretary of State from non-determination of the application for planning permission on behalf of INEOS Upstream Limited under code no. CM4/0617/10 (appeal reference APP/U1050/W/17/3190838), on the basis that; suitable requirements and limitations in relation to dust, ecology, highway and traffic impacts, archaeology, lighting, and noise, as outlined in this report, must be specified and secured by condition or legal agreement in order for the development to be acceptable to the Council for a grant of permission having regard to the development plan and other planning considerations and referred to in this report.

**Mike Ashworth**  
**Strategic Director – Economy, Transport and Environment**

Land Adjacent to Bramley Moor Lane, Marsh Lane - Application Code No. CM4/0517/10



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Scale = 1 : 5000

26-Jun-2017