APPLICATION NO	**PA/2018/1316**
APPLICANT	Mr Mark Abbott, Egdon Resources UK Ltd
DEVELOPMENT	Planning permission for the retention of Wressle-1 wellsite and access track for the production of hydrocarbons, together with an extension of the site by 0.12 ha for the installation of additional security facilities; site reconfiguration to facilitate the installation of a new impermeable membrane, French drain and surface water interceptor; construction of a new bund, tanker loader plinth and internal roadway system; installation of up to two additional groundwater monitoring boreholes and deepening of three existing groundwater monitoring boreholes; well operation; installation of production facilities and equipment; instillation of gas engine and electrical grid connection; oil and gas production for a temporary period of 15 years; and restoration to arable land
LOCATION	Wressle-1 wellsite, Lodge Farm, Clapp Gate, Appleby, DN15 0DB
PARISH	Broughton
WARD	Broughton and Appleby
CASE OFFICER	Andrew Law
SUMMARY RECOMMENDATION	**Grant permission subject to conditions**
REASONS FOR REFERENCE TO COMMITTEE	Member 'call in' (Cllr Holly Mumby Croft – significant public interest) Objection by Broughton Town Council
POLICIES	

National Planning Policy Framework:

Achieving sustainable development

Paragraph 7 explains that the purpose of the planning system is to contribute to the achievement of sustainable development and that *"At a very high level… sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs."*

Paragraph 8 identifies the three overarching objectives in achieving sustainable development through the planning system. These objectives are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

a) ***"an economic objective*** *– to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at*

the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

b) ***a social objective*** *– to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*

c) ***an environmental objective*** *– to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."*

Paragraph 9 states that *"Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area."* It also explains that it the 3 overarching objectives are not criteria against which every decision can or should be judged.

Paragraph 10 states that at the heart of the Framework is a presumption in favour of sustainable development.

Paragraph 11 sets out the presumption in favour of sustainable development and confirms that, for decision-taking this means:

c) *"approving development proposals that accord with an up-to-date development plan without delay; or*

d) *where there are no relevant development plan policies, or the policies which are most important for determining the application are out of-date, granting planning permission unless:*

   i) *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*

   ii) *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework as a whole."*

Paragraph 12 states that *"The presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. Where a planning application conflicts with an up-to-date development plan… permission should not usually be granted. Local planning authorities may take decisions that depart from an up-to-date development plan, but only if material considerations in a particular case indicate that the plan should not be followed."*

Decision-making

Paragraph 38 states that *"Local planning authorities should approach decisions on proposed development in a positive and creative way… Decision-makers at every level should seek to approve applications for sustainable development where possible."*

Paragraph 47 explains the requirement in planning law that applications for planning permission must be determined in accordance with the local plan, unless material considerations indicate otherwise. It also requires decisions to be made as quickly as possible and within statutory timescales unless a longer period has been agreed by the applicant in writing.

Paragraph 54 states that *"Local planning authorities should consider whether otherwise unacceptable development could be made acceptable through the use of conditions or planning obligations. Planning obligations should only be used where it is not possible to address unacceptable impacts through a planning condition."*

Paragraph 55 explains that planning conditions should be kept to a minimum and only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects.

Paragraph 56 states that planning obligations must only be sought where they meet all of the following tests:

a) *"necessary to make the development acceptable in planning terms;*

b) *directly related to the development; and*

c) *fairly and reasonably related in scale and kind to the development."*

Building a strong competitive economy

Paragraph 80 states that "*Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future."*

Paragraph 82 explains that planning policies and decisions should recognise and address the specific locational requirements of different sectors.

Supporting a prosperous rural economy

Paragraph 83 seeks to promote the sustainable growth and expansion of all types of business in rural areas, through conversion of existing buildings and well-designed new buildings; the development and diversification of land-based rural businesses; sustainable rural tourism and leisure developments that respect the character of the countryside; and the retention and development of accessible local services and community facilities.

Paragraph 84 states that *"Planning policies and decisions should recognise that sites to meet local business and community needs in rural areas may have to be found adjacent to or beyond existing settlements, and in locations that are not well served by public transport. In these circumstances it will be important to ensure that development is sensitive to its surroundings, does not have an unacceptable impact on local roads and exploits any opportunities to make a location more sustainable".*

Promoting healthy and safe communities

Paragraph 91 states that planning policies and decisions should aim to achieve healthy, inclusive and safe places, which promote social interaction; are safe and accessible; and enable and support healthy lifestyles.

Promoting sustainable transport

Paragraph 102 states that *"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

a) the potential impacts of development on transport network can be addressed;

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location and density of development that can be accommodated;

c) opportunities to promote walking, cycling and public transport use are identified and pursued;

d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e) *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*

Paragraph 103 requires significant developments to be focussed in locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes… However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-taking.

Paragraph 108 requires that when assessing specific applications for development, it should be ensured that:

a) "appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety can be cost effectively mitigated to an acceptable degree."

Paragraph 109 states that *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

Paragraph 100 goes on to explain that within this context, applications for development should:

a) *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Paragraph 111 requires all developments that will generate significant amounts of movement to be provided with a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.

Making effective use of land

Paragraph 117 requires planning policies and decisions to promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions.

Paragraph 118 requires planning policies and decisions to:

a) *"encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside;*

b) *recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production;*

c) *give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land;*

d) *promote and support the development of under-utilised land and buildings, especially if this would help to meet identified needs for housing were land supply is constrained and available sites could be used more effectively (for example converting space above shops, and building on or above service yards, car parks, lock-ups and railway infrastructure); and*

e) *support opportunities to use the airspace above existing residential and commercial premises for new homes. In particular, they should allow upward extensions where the development would be consistent with the prevailing height and form of neighbouring properties and the overall street scene, is well-designed (including complying with any local design policies and standards), and can maintain safe access and egress for occupiers."*

Paragraph 121 states that *"Local planning authorities should take a positive approach to applications for alternative uses of land which is currently developed but not allocated for a specific purpose in plans, where this would help meet identified development needs."*

Achieving well-designed places

Paragraph 124 states that *"Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities."*

Paragraph 127 goes on to explain that planning policies and decisions should ensure that developments:

a) *"will function well and add to the overall quality of the area, not just for the short term but over lifetime of the development;*

b) *are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

c) *are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);*

d) *establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;*

e) *optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and*

f) *create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users, and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."*

Paragraph 130 explains that permission should be refused development of poor design that fails to take the opportunities available for improving the character and quality of an area

and the way it functions, taking into account any local design standards or style guides in plans or supplementary planning documents. Conversely, where the design of a development accords with clear expectations in plan policies, design should not be used by the decision-maker as a valid reason to object to development.

Meeting the challenge of climate change, flooding and coastal change

Paragraph 148 states that "*The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change."*

Paragraph 153 states that *"In determining planning applications, local planning authorities should expect new development to:*

a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and

b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."

Paragraph 155 states that "*inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere."*

Paragraph 157 states that all plans should apply a sequential, risk-based approach to the location of development – taking into account the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:

a) "applying the sequential test and then, if necessary, the exception test as set out below;

b) safeguarding land from development that is required, or likely to be required, for current or future flood management;

c) using opportunities provided by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques); and

d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations."

Paragraph 158 goes on to explain that the aim of the sequential test is to steer new development to areas with the lowest risk of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.

Paragraph 159 further explains that if it is not possible for development to be located in zones with a lower risk of flooding (taking into account wider sustainable development

objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in national planning guidance.

Paragraph 160 identifies that the application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. For the exception test to be passed it should be demonstrated that:

a) *"the development would provide wider sustainability benefits to the community that outweigh the flood risk; and*

b) *the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall."*

Paragraph 161 requires both elements of the exception test to be satisfied for development to be allocated or permitted.

Paragraph 163 states that "*when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*

a) *within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*

b) *the development is appropriately flood resistant and resilient;*

c) *it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*

d) *any residual risk can be safely managed; and*

e) *safe access and escape routes are included where appropriate, as part of an agreed emergency plan."*

Paragraph 165 requires major developments to incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate.

Conserving and enhancing the natural environment

Paragraph 170 explains that "*Planning policies and decisions should contribute to and enhance the natural and local environment by:*

a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

Paragraph 175 explains that when determining planning applications, local planning authorities should apply the following principles:

a) "if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

Paragraph 176 identifies that potential SPA's and SAC's, listed or proposed RAMSAR sites and sites identified or required as compensation for adverse effects on habitat sites should be given the same protection as habitat sites.

Paragraph 177 explains that the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

Paragraph 178 states that planning policies and decisions should ensure that:

a) *"a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);*

b) *after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and*

c) *adequate site investigation information, prepared by a competent person, is available to inform these assessments."*

Paragraph 179 makes it clear that where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

Paragraph 180 states that *"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*

a) *mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life60;*

b) *identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and*

c) *limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."*

Paragraph 181 states that *"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified… Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."*

Paragraph 183 makes it clear that "*The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning*

issues should not be revisited through the permitting regimes operated by pollution control authorities."

Conserving and enhancing the historic environment

Paragraph 187 requires local planning authorities to maintain or have access to a historic environment record, which should be used to assess the significance of heritage assets and predict the likelihood that currently unidentified heritage assets will be discovered in the future.

Paragraph 189 requires applicants to "*describe the significance of any heritage assets affected, including any contribution made by their setting."*

Paragraph 190 states that *"Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal."*

Paragraph 192 requires local planning authorities to take account of:

a) "*the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*

b) *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*

c) *the desirability of new development making a positive contribution to local character and distinctiveness."*

Paragraph 193 explains that, when considering the impact of a development on the significance of a heritage asset, great weight should be given to the assets conservation.

Paragraph 194 requires clear and convincing justification to be provided for any harm to, or loss of, the significance of a designated heritage asset.

Paragraph 195 *"where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits"*.

Paragraph 196 states *"where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal…"*

Paragraph 197 requires the effect of an application upon a non-designated heritage asset's significance to be taken into account and where applications directly, or indirectly, affect non-designated heritage assets, *"a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset"*.

Paragraph 198 states that *"Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred."*

Facilitating the sustainable use of minerals

Paragraph 203 states that *"It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite resource and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation"*.

Paragraph 205 relates specifically to decision-making with regard to mineral applications and states that *"great weight should be given to the benefits of mineral extraction, including the economy"*. It goes on to explain that *"minerals planning authorities should:*

a) as far as it is practical, provide for the maintenance of landbanks of non-energy minerals from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites, scheduled monuments and conservation areas;

b) ensure that there are no unacceptable adverse impacts on the natural and historic environment human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;

c) ensure that any unavoidable noise, dust and particle emissions…are controlled, mitigated or removed at source and establish appropriate noise limits for extraction in proximity to noise sensitive properties;

d) not grant planning permission for peat extraction from new or extended sites;

e) provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances;

f) consider how to meet any demand for small-scale extraction of building stone at, or close to, relic quarries needed for the repair of heritage assets, taking account of the need to protect designated sites; and

g) recognise the small-scale nature and impact of building and roofing stone quarries, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites."

Paragraph 209 states that *"Minerals planning authorities should:*

a) recognise the benefits of on-shore oil and gas development, including unconventional hydrocarbons, for the security of energy supplies and the transition to a low-carbon economy; and put in place policies to facilitate their exploration and extraction;

b) when planning for on-shore oil and gas development, clearly distinguish between, and plan positively for, the three phases of development (exploration, appraisal and

production), whilst ensuring appropriate monitoring and site restoration is provided for;

c) encourage underground gas and carbon storage and associated infrastructure if local geological circumstances indicate its feasibility;

d) indicate any areas where coal extraction and the disposal of colliery spoil may be acceptable;

e) encourage capture and use of methane from coal mines in active and abandoned coalfield areas; and

f) *provide for coal producers to extract separately, and if necessary stockpile, fireclay so that it remains available for use".*

Paragraph 210 states that *"minerals planning authorities should ensure that the integrity and safety of underground storage facilities are appropriate, taking into account the maintenance of gas pressure, prevention of leakage of gas and the avoidance of pollution".*

Annex 1: Implementation

Paragraph 212 explains that the policies in the NPPF are material considerations, which should be taken into consideration when determining planning applications.

Paragraph 213 goes on to explain that existing policies should not be considered out-of-date simply because they were adopted or made prior to the publication of the NPPF. Weight should be given to these policies according to their consistency with the Framework.

North Lincolnshire Local Plan:

Policy M1 (Applications for Mineral Workings)

Supports proposals for mineral extraction provided that acceptable proposals are made to mitigate visual and amenity impacts; the order and method of working is satisfactory; restoration proposals are satisfactory; and the local road network and other transport facilities are adequate.

Policy M3 (Residential Amenity and Protection Zones)

Advises that mineral working will not be allowed directly adjacent to proposed housing or other land uses where unacceptable impacts may arise. The separation required will depend on the nature and scale of the proposed working and the potential to use mitigatory measures.

Policy M4 (Ancient Monuments and Archaeological Sites)

Proposals for minerals development affecting sites of known or potential archaeological importance must be accompanied by an archaeological assessment and where necessary, a field evaluation. Minerals applications affecting Scheduled Ancient Monuments will not be allowed unless the reasons for development clearly outweigh the archaeological value of the site.

Policy M5 (Best and Most Versatile Agricultural Land)

Applications for new mineral working on the best and most versatile agricultural land (grades 1, 2 and 3a) will be allowed only where it can be shown that restoration and after-care will preserve the long-term potential of the land.

Policy M7 (Transportation of Minerals)

Planning permission for new mineral workings will only be granted where the council is satisfied that the level of traffic movements can be accommodated on the local road network, and where impacts on local communities can be reduced to an acceptable level.

Policy M23 (Oil and Gas Production)

Proposals for oil and gas production facilities will be permitted, provided that the proposal incorporates environmental protection measures that are adequate to mitigate the impacts arising from a long-term or permanent site.

Policy RD2 (Development in the Open Countryside)

This policy seeks to strictly control development in the open countryside to certain types. Amongst others, policy RD2 identifies employment-related development appropriate to the open countryside as an acceptable type of development. New development in the open countryside will only be permitted provided that the open countryside is the only appropriate location; it would not be detrimental to the character or appearance of the area; it would not be detrimental to residential amenity or highway safety; and the development is sited to make best use of existing and new landscaping.

Policy DS1 (General Requirements)

This policy seeks a high standard of design in all new developments and states "*proposals for poorly designed development will be refused"*. Policy DS1 sets out criteria against which all new proposals will be considered as set out below:

- Quality of design

  i) the design and external appearance should reflect or enhance the character, appearance and setting of the immediate area; and

  ii) the design and layout should respect, and where possible retain and/or enhance, the existing landform.

- Amenity

  iii) no unacceptable loss of amenity to neighbouring land uses should result in terms of noise, smell, fumes, dust or other nuisance, or through the effects of overlooking or overshadowing; and

  iv) amenity open space in the area should be retained, wherever possible; and

  v) no pollution of water, air or land should result.

- Conservation

  vi) there should be no adverse effect on features of acknowledged importance on, or surrounding, the site, including species of plants and animals of nature conservation value; and

  vii) the development must retain existing features that make an important contribution to the character or amenity of the site or the surrounding area; and

  viii) development proposals should include results of archaeological assessment, where appropriate, and adequate measures to ensure that there would be no unacceptable impacts on archaeological remains.

- Resources

  ix) there should be no conflict with an allocated or approved land-use nor should the reasonable potential for development of a neighbouring site be prejudiced; and

  x) the location and design of developments on urban fringes should take into account the need to minimise the impact of the development on adjoining agricultural land; and

  xi) measures to conserve energy will be expected in:

    a) the design, orientation and layout of buildings; and

    b) the location of development; and

    c) improvements to the transport network and in the management of traffic.

- Utilities and Services

  xii) there should be no reliance on public finances being available to provide infrastructure and services; and

  xiii) suitable on-site drainage should be provided and where there are off-site drainage problems the developer will be expected to overcome them.

Policy DS3 (Planning Out Crime)

New development should take into account personal safety and the security of people and property by making sure that paths, play areas and open spaces are overlooked by inhabited buildings; avoiding the creation of spaces with ill-defined ownership; ensuring the development is well integrated into the existing pattern of pedestrian and vehicular movement; ensuring that dark or secluded areas are not created by landscaping or buildings; and ensuring that streets and paths are adequately lit.

Policy DS11 (Polluting Activities)

Planning permission for development will only be permitted where it can be demonstrated that the levels of potentially polluting emissions do not pose a danger by way of toxic release; result in land contamination; pose a threat to current and future surface or

underground water resources; or create adverse environmental conditions likely to affect nearby developments and adjacent areas.

Policy DS12 (Light Pollution)

Planning applications which involve light generating development, including floodlighting, will only be permitted where it can be demonstrated that there would be no adverse impact on local amenities.

Policy DS13 (Groundwater Protection and Land Drainage)

All development proposals must take account of the need to secure effective land drainage measures and ground water protection in order to control the level of water in the land drainage system.

Policy DS14 (Foul Sewage and Surface Water Drainage)

This policy requires satisfactory provision to be made for the disposal of foul and surface water from new development.

Policy DS15 (Water Resources)

Development will not be permitted which would adversely affect the quality and quantity of water resources or adversely affect nature conservation, fisheries and amenity by means of pollution from the development or water abstraction unless the impact is mitigated to an acceptable level.

Policy DS16 (Flood Risk)

Development will not be permitted in floodplains if it would increase the number of people or buildings at risk; impede the flow of flood water; impede access for maintenance of watercourses; reduce the storage capacity of the floodplain; increase the risk of flooding elsewhere; or undermine the integrity of flood defences unless adequate mitigation is undertaken.

Policy T1 (Location of Development)

This policy requires developments that generate significant volumes of traffic to be located in urban areas and where there is good access to transport networks and foot, cycle and public transport provision.

Policy T2 (Access to Development

This policy requires all new developments to be provided with a satisfactory access and continues to state that larger developments should be served by a range of transport modes.

Policy LC4 (Development Affecting Sites of Local Nature Conservation Importance)

This policy seeks to protect areas of local nature conservation importance and only permits developments that are likely to have an adverse impact on these areas if it can be clearly demonstrated that there are reasons for the proposal which outweigh the need to

safeguard the intrinsic nature conservation value of the site. It also requires any damage to be kept to a minimum.

Policy LC5 (Species Protection)

Planning permission will not be granted for development which would have an adverse impact on protected species. Where development is granted that may impact on protected species, the use of conditions or planning agreements will be considered to mitigate this impact.

Policy LC7 (Landscape Protection)

Where development is permitted within the open countryside, special attention will be given to the protection of the scenic quality and distinctive local character of the landscape. Development which does not respect the character of the local landscape will not be permitted.

North Lincolnshire Core Strategy:

Policy CS1 (Spatial Strategy for North Lincolnshire)

This policy sets out the spatial strategy for future development in North Lincolnshire. It goes on to state that *"All future growth regardless of location should contribute to sustainable development"* and that where development has an environmental impact *"mitigation measures should be used for the development to be acceptable"*.

Policy CS2 (Delivering More Sustainable Development)

Asserts that any development in the open countryside will be restricted and only development essential to the functioning of the countryside will be allowed to take place. This includes, amongst other uses, those *"which require a countryside location"*.

It goes on to state that all future development will be required to contribute towards achieving sustainable development and sets out sustainable development principles which development should comply with. These sustainable development principles include, amongst others, a requirement to:

- contribute to achieving sustainable economic development to support a competitive business and industrial sector; and

- take account of local environmental capacity and to improve air, water and soil quality and minimise the risk and hazards associated with flooding.

This policy also requires environmental impacts of developments to be adequately mitigated.

Policy CS3 (Development Limits)

This policy outlines how development limits will be created and applied. It also states that development outside defined boundaries will be restricted to that which is essential to the functioning of the countryside. This includes uses which require a countryside location.

Policy CS11 (Provision and Distribution of Employment Land)

This policy sets out support for the expansion and improvement of North Lincolnshire's economy and outlines strategic employment sites. It also supports development elsewhere in North Lincolnshire that meets local employment needs and maximises other special locations.

Policy CS17 (Biodiversity)

This policy sets out a number of ways in which the council will seek to promote the effective stewardship of North Lincolnshire's wildlife. Amongst others these include:

- *ensuring development retains, protects and enhances features of biological and geological interest and provides for the appropriate management of these features; and*

- *ensuring development seeks to produce a net gain in biodiversity by designing in wildlife, and ensuring any unavoidable impacts are appropriately mitigated for.*

Policy CS18 (Sustainable Resource Use and Climate Change)

This policy promotes development that utilises natural resources efficiently and sustainability including, amongst others:

- *meeting required national reductions of predicted CO_2 emissions by at least 34% in 2020 and 80% in 2050 by applying the following measures on development proposals; and*

- *ensuring development and land use helps to protect people and the environment from unsafe*, unhealthy and polluted environments, by protecting and improving the quality of the air, land and water.

Policy CS19 (Flood Risk)

This policy sets out that the council will support development proposals that avoid areas of current or future flood risk, and which do not increase the risk of flooding elsewhere. This includes a risk-based sequential approach that uses the principle of locating development, where possible, on land that has a lower flood risk. Development in high flood risk areas will only be allowed where there is a wider sustainable benefit to the area that outweighs flood risk; it is on previously developed land unless there are no reasonably alternative sites on previously developed land; and a Flood Risk Assessment has demonstrated that it will be safe from flooding, without increasing flood risk elsewhere. "*The council will also seek to reduce the increase in flood risk due to climate change through measures to reduce carbon dioxide emissions*."

Policy CS20 (Sustainable Waste Management)

Sets out a sequential approach towards waste management facilities and outlines how the council will promote sustainable waste management.

Policy CS21 (Minerals)

This policy explains that the council will safeguard mineral resources in North Lincolnshire from other development that would prejudice future mineral extraction via Mineral

Safeguarding Areas in the Minerals and Waste Development Plan Document (not yet published). It also states that the council *"will provide for a steady and adequate supply of mineral to be maintained in accordance with national and regional guidance"*.

Policy CS21 plans for the sustainable extraction of minerals by:

a) *"reducing the consumption of non-renewable mineral resources by encouraging reuse and recycling of construction and demolition waste, particularly from land reclamation schemes, and the by-products of industrial processes, especially power generation and steel manufacture;*

b) *requiring phased development and progressive restoration of mineral sites;*

c) *the use of restoration materials to progressively restore mineral sites;*

d) *safeguarding natural watercourses;*

e) *planning applications for mineral extraction to be accompanied by an Environmental Statement where required by guidelines;*

where appropriate, site restoration will contribute to the attainment of local biodiversity targets".

Policy CS25 (Promoting Sustainable Transport)

This policy promotes a sustainable transport system in North Lincolnshire that offers a choice of transport modes and reduces the need to travel through spatial planning and design and by utilising a range of demand and network management tools.

National Planning Practice Guidance:

Air quality

This section of the guidance provides guiding principles on how planning can take account of the impact of new development on air quality.

Paragraph 001 when referring to why planning should be concerned about air quality explains that *"action to manage and improve air quality is largely driven by EU legislation. The 2008 Ambient Air Quality Directive sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen dioxide (NO_2). As well as having direct effects, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems".*

Paragraph 005 sets out that when deciding whether air quality is relevant to a planning application, considerations could include whether the development would (in summary): significantly affect traffic (through congestion, volumes, speed, or traffic composition on local roads); introduce new point sources of air pollution; expose people to existing sources of air pollutants; give rise to potentially unacceptable impact (such as dust) during construction; or affect biodiversity (due to pollutants).

Paragraph 008 states that mitigation measures will be *"locationally specific, will depend on the proposed development and should be proportionate to the likely impact"*. It further sets

out that examples of mitigation could include: amendments to a site's layout to increase distances between pollution sources and receptors; using green infrastructure; means of ventilation; promoting means of transport with low impact on air quality; control of dust and emissions from construction, operation and demolition; and contributing funding to measures designed to offset the impact on air quality.

Paragraph 009 explains, through the means of a flowchart, the considerations in respect of air quality in the development management process.

Climate change

This section of the guidance advises how planning can identify suitable mitigation and adaptation measures in plan-making and the planning application process to address the potential impacts of climate change.

Paragraph 001 requires local authorities to *"ensure that protecting the local environment is properly considered alongside the broader issues of protecting the global environment".* Addressing climate change is one of the core land use planning principles underpinning both plan-making and decision-taking.

Paragraph 003 cites the consideration of the *"availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality"* as an example of the planning system's means of adapting to a changing climate.

Paragraph 005 states that the impact of climate change *"needs to be taken into account in a realistic way"* such as looking at *"the potential vulnerability of a development to climate change risk over its whole lifetime"*.

Conserving and enhancing the historic environment

This section of the guidance advises on enhancing and conserving the historic environment.

Paragraph 017 states that *"what matters in assessing if a proposal causes substantial harm is the impact on the significance of the heritage asset"* and asserts that *"significance derives not only from a heritage asset's physical presence, but also from its setting.*

Whether a proposal causes substantial harm will be a judgement for the decision taker… In general terms, substantial harm is a high test, so it may not arise in many cases".

Flood risk and coastal change

This section of the guidance advises on how planning can take account of the risks associated with flooding and coastal change in plan-making and the application process.

Paragraph 001 advises that, where development needs to be in locations where there is a risk of flooding that *"development is appropriately flood resilient and resistant, safe for its users for the development's lifetime, and will not increase flood risk overall"*.

Paragraph 029 states that *"developers and applicants need to consider flood risk to and from the development site"* and that *"the broad approach of assessing, avoiding, managing and mitigating flood risk should be followed"*.

Health and wellbeing

This section of the guidance advises on the role of health and wellbeing in planning.

Paragraph 001 states that local authorities *"should ensure that health and wellbeing, and health infrastructure are considered in…planning decision-making".*

Paragraph 002 declares the built and natural environments to be *"major determinants of health and wellbeing"* and goes on to list, amongst others, that planning authorities should, in considering new development proposals, ensure that *"potential pollution and other environmental hazards, which might lead to an adverse impact on human health, are accounted for"*.

Land affected by contamination

This section of the guidance provides guiding principles on how planning can deal with land affected by contamination.

Paragraph 001 asserts the need for authorities to adequately deal with contamination and states that failure to do so *"could cause harm to human health, property and the wider environment"*.

Paragraph 009 advises that local planning authorities should work with developers to find acceptable ways forward if there are concerns about land contamination. *"However, local planning authorities should be satisfied that a proposed development will be appropriate for its location and not pose an unacceptable risk"*.

Land stability

This section of the guidance provides advice to local authorities and developers to ensure that development is appropriately suited to its location, and that there are no unacceptable risks caused by unstable land or subsidence.

Paragraph 001 explains that the effects of land instability may result in *"landslides, subsidence or ground heave. Failing to deal with this issue could cause harm to human health, local property and associated infrastructure, and the wider environment"*. Evidence available to the local planning authority does not suggest that the area within which the application is situated is vulnerable to either landslides, mining hazards or subsidence.

Light pollution

This part of the guidance advises on how to consider light within the planning system.

Paragraph 001 explains that artificial light *"can be a source of annoyance to people, harmful to wildlife, undermine enjoyment of the countryside or detract from enjoyment of the night sky"* and advises that appropriately designed lighting schemes are key.

Paragraph 002 advises local planning authorities, when assessing whether a development proposal might have implications for light pollution, to consider whether they will *"materially alter light levels outside and/or have the potential to adversely affect the use or enjoyment of nearby buildings or open spaces…protected site or species…or protected area of dark sky"*.

Paragraph 003 explains that when light spills onto areas outside the immediate area of a proposed development it *"can impair sleeping, cause annoyance to people, compromise an existing dark landscape and/or affect natural systems (e.g. plants, animals, insects, aquatic life)"*. It goes on to advise that light intrusion can usually be avoided with careful lamp design selection and positioning.

Paragraph 004 advises that *"lighting only when the light is required can have a number of benefits, including minimising light pollution, reducing harm to wildlife and improving people's ability to enjoy the night sky"*.

Paragraph 005 states that *"the character of the area and the surrounding environment may affect what will be considered an appropriate level of lighting for a development. In particular, lighting schemes for developments in…intrinsically dark landscapes should be carefully assessed as to their necessity and degree"*. Glare should be avoided for safety reasons.

Minerals

This section of the guidance provides guidance on the planning for mineral extraction in plan-making and the application process.

Paragraph 012 sets out the relationship between planning and other regulatory regimes noting that *"the planning system controls development and the use of land in the public interest"* including ensuring that development is appropriate for its location and an acceptable use of land. The guidance reiterates the NPPF's stated approach that *"the focus of the planning system should be on whether the development itself is an acceptable use of land and the impacts of those uses, rather than any control processes, health and safety issues or emissions themselves where these are subject to approval under regimes. Mineral planning authorities should assume that these non-planning regimes will operate effectively"*.

Paragraph 013 sets out the environmental issues that authorities should address when dealing with applications for mineral-related development including noise, air quality, lighting, visual impact, traffic, risk of contamination to land, geological structure, flood risk, impacts on protected landscapes, surface and, in some cases, ground water issues, and water abstraction.

Paragraph 014 sets out issues which are for other regulatory regimes to address, including, for example, ground and surface water and mining waste permits, for which the Environment Agency is responsible. With specific respect to hydrocarbon extraction, paragraph 014 links to later paragraphs within the online guidance which sets out the key regulators in addition to the Mineral Planning Authority.

Paragraph 015 states that *"minerals operators should look to agree a programme of work with the mineral planning authority which takes into account, as far as practicable, the potential impacts on the local community and local environment (including wildlife), the proximity to occupied properties, and legitimate operational considerations over the expected duration of operations"*.

Paragraph 017 notes that the cumulative impact of mineral development can be a material consideration in determining planning applications.

Paragraph 019 relates to noise and states,

"Those making mineral development proposals…should carry out a noise impact assessment, which should identify all sources of noise and, for each source, take account of the noise emission, its characteristics, the proposed operating locations, procedures, schedules and duration of work for the life of the operation, and its likely impact on the surrounding neighbourhood.

Proposals for the control or mitigation of nose emissions should:

- *consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties and sensitive environmental sites;*
- *assess the existing acoustic environment around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties;*
- *estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations;*
- *identify proposals to minimise, mitigate or remove noise emissions at source;*
- *monitor the resulting noise to check compliance with any proposed or imposed conditions".*

Paragraph 020 asks how noise impact should be determined and states,

"Mineral planning authorities should take account of the prevailing acoustic environment and in doing so consider whether or not noise from the proposed operations would:

- *give rise to a significant adverse effect;*
- *give rise to an adverse effect; and*
- *enable a good standard of amenity to be achieved.*

…this would include identifying whether the overall effect of the noise exposure would be above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation…".

Paragraph 021 advises on the appropriate noise standards for mineral operators for normal operations and sets out certain noise limits that mineral planning authorities should seek to establish, through a planning condition. These limits vary depending on the time that the operations take place and there is also guidance with regard to tonal elements of noise. *"Care should be taken, however, to avoid any of these suggested values being implemented as fixed thresholds as specific circumstances may justify some small variation being allowed*."

Paragraph 022 identifies a number of operations that may give rise to particularly noisy short-term activities. It is suggested that "*increased temporary daytime noise limits for periods of up to eight weeks in a year…should be considered to facilitate essential site preparation and restoration work…where it is clear that this will bring longer-term*

environmental benefits to the site or its environs". Where work is likely to take longer than eight weeks, a lower limit over a longer period is advocated.

Paragraph 039 identifies that proposals for restoration and aftercare of the site should be submitted as part of the planning permission.

Paragraph 040 states that *"the level of detail required on restoration and aftercare will depend on the circumstances of each specific site"* and that *"it must be sufficient to clearly demonstrate that the overall objectives of the scheme are practically achievable"*.

Paragraph 110 states that the *"key regulators for hydrocarbon extraction are:*

a. ***Department of Energy and Climate Change*** *– issues Petroleum Licenses, gives consent to drill under the License once other permissions and approvals are in place, and have responsibility for assessing risk of and monitoring seismic activity, as well as granting consent for flaring or venting;*

b. ***Mineral Planning Authorities*** *– grant permission for the location of any wells and wellpads, and impose conditions to ensure that the impact on the use of the land is acceptable;*

c. ***Environment Agency*** *– protect water resources (including groundwater aquifers), ensure appropriate treatment and disposal of mining waste, emissions to air, and suitable treatment and manage any naturally occurring radioactive materials; and*

d. ***Health and Safety Executive*** *– regulates the safety aspects of all phases of extraction, in particular responsibility for ensuring the appropriate design and construction of a well casing for any borehole".*

Paragraph 112 provides further detail on the roles and responsibilities of these regulatory bodies stating that *"there exist a number of issues which are covered by other regulatory regimes and mineral planning authorities should assume that these regimes will operate effectively. Whilst these issues may be put before mineral planning authorities, they should not need to carry out their own assessment as they can rely on the assessment of other regulatory bodies. However, before granting planning permission they will need to be satisfied that these issues can or will be adequately addressed by taking the advice from the relevant regulatory body:*

- *Mitigation of seismic risks – the Department of Energy and Climate Change is responsible for controls, usually through the license consent regime, to mitigate seismic risks. Seismic assessment of the geology of the area to establish the geological conditions, risk of seismic activity and mitigation measures to put in place is required by the Department of Energy and Climate Change for all hydraulic fracturing processes.*

- *Well design and construction – the Health and Safety Executive are responsible for enforcement of legislation concerning well design and construction. Before design and construction operators must assess and take account of the geological strata, and fluids within them, as well as any hazards that the strata may contain.*

- *Well integrity during operation – under health and safety legislation the integrity of the well is subject to examination by independent qualified experts throughout its operation, from design through construction and until final plugging at the end of operation.*

- *Operation of surface equipment on the well pad – whilst planning conditions may be imposed to prevent run-off of any liquid from the pad, and to control any impact on local amenity (such as noise), the actual operation of the site's equipment should not be of*

- *concern to mineral planning authorities as these are controlled by the Environment Agency and the Health and Safety Executive.*

- *Mining waste – the Environment Agency is responsible for ensuring that extractive wastes do not harm human health and the environment. An environmental permit is required for phases of hydrocarbon extraction and this will require the operator to produce and implement a waste management plan.*

- *Chemical content of hydraulic fracturing fluid – this is covered by the environmental permit as operators are obliged to inform the Environment Agency of all chemicals that they may use as part of any hydraulic fracturing process.*

- *Flaring or venting of any gas produced as part of the exploratory phase will be subject to Department of Energy and Climate Change controls and will be regulated by the Environment Agency. Mineral planning authorities will, however, need to consider how issues of noise and visual impact will be addressed.*

- *Final off-site disposal of water – water that comes back to the surface following hydraulic fracturing may contain naturally occurring radioactive materials. Whilst storage on-site and the traffic impact of any movement of water is of clear interest to local authorities, it is the responsibility of the Environment Agency to ensure that the final treatment/disposal at suitable water treatment facilities is acceptable.*

- *Well decommissioning/abandonment – following exploration, the well is likely to be suspended and abandoned for a period of time. Health and Safety Legislation requires its design and construction so that, so far as reasonably practicable, there is no unplanned escape of fluids from it. The mineral planning authority is responsible for ensuring the wells are abandoned and the site is restored."*

Notwithstanding the above, paragraph 112 highlights where mineral planning authorities are able to have regard to matters which would ordinarily be assumed to fall to others stating *"some issues may be covered by other regulatory regimes but may be relevant to mineral planning authorities in specific circumstances. For example, the Environment Agency has responsibility for ensuring that the risk to groundwater is appropriately identified and mitigated…mineral planning authorities can and do play a role in preventing pollution of the water environment from hydrocarbon extraction, principally through controlling the methods of site construction and operation, robustness of storage facilities, and in tackling surface water drainage issues"*.

Paragraph 124 states that account should be taken of national energy policy, making clear *"energy supplies should come from a variety of sources"* including onshore oil and gas, as set out in the Annual Energy Statement (October 2013).

Natural environment

This section of the guidance explains key issues in implementing policy to protect and enhance the natural environment.

Paragraph 001 states that *"planning should recognise the intrinsic character and beauty of the countryside"*.

Paragraph 007 explains the statutory responsibilities of planning authorities in determining applications and, at its core, a duty to *"contribute to conserving and enhancing the natural environment and reducing pollution"*.

Paragraph 008 requires local planning authorities to *"consider the opportunities that individual development proposals may provide to enhance biodiversity and contribute to wildlife and habitat connectivity in the wider area"*.

Paragraph 011 confirms that updated guidance on the law affecting European sites, protected species and Sites of Special Scientific Interest is being prepared by DEFRA. In the absence of this updated advice local authorities are directed to *'Circular 06/05: Biodiversity and geological conservation'* (published 16 August 2005).

Paragraph 016 advises that where there is *"reasonable likelihood of a protected species being present and affected by development"* then ecological surveys may be warranted and these surveys should be *"proportionate to the nature and scale of development proposed and the likely impact on biodiversity"*. Planning conditions and/or legal agreements may be appropriate for monitoring and/or biodiversity management plans where these are needed.
Paragraph 017 seeks to encourage bio-diversity enhancement through planning decisions.

Paragraph 018 explains the *'mitigation hierarchy'* of information, avoidance, mitigation and compensation to facilitate decision-taking.

Paragraph 020 requires the securing of mitigation and/or compensation measures such as off-setting, in instances where *"significant harm to biodiversity is unavoidable"*.

Paragraph 024 states that the *"planning system should protect and enhance valued soils and prevent the adverse effects of unacceptable levels of pollution. This is because soil is an essential finite resource that provides important 'ecosystem services'"*.

Paragraph 026 expects local planning authorities to *"take into account the economic and other benefits of the best and most versatile agricultural land…and…should seek to use poorer quality land in preference to that of a higher quality"*.

Noise

This section of the guidance advises on how planning can manage potential noise impacts in new development.

Paragraph 001 states that *"noise needs to be considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment"*.

Paragraph 002 advises that whilst noise can override other planning concerns, neither the Noise Policy Statement for England nor the NPPF expects noise to be considered in isolation, separate from the economic, social and other environmental dimensions of the proposed development.

Paragraph 003 advises planning authorities to consider:

- *whether or not a significant adverse effect is occurring or likely to occur;*
- *whether or not an adverse effect is occurring or likely to occur;*
- *whether or not a good standard of amenity can be achieved; and*
- *whether the overall effect of the noise exposure is, or would be, above or below the significant observed adverse effect level".*

Paragraph 006 identifies a number of factors that are likely to give rise to noise being a concern and these include the following:

- the source of the noise;
- absolute level;
- time of the day;
- number, frequency and pattern of noise events; and
- the duration and/or character of the noise.

Planning authorities are also advised to consider the cumulative impacts of noise that can arise and also their effects upon wildlife and ecosystems, particularly upon designated sites, as well as those living in the vicinity of proposed developments.

Paragraph 008 explores possibilities for mitigation against the adverse noise impacts that can arise from proposed developments.

Open space, sports and recreation facilities, public rights of way and local green space

This section of the guidance gives key advice on open space, sports and recreation facilities, public rights of way and the new Local Greenspace designation.

Paragraph 004 refers to the Rights of Way Circular (1/09) which states that the *"effect of development on a public right of way is a material consideration in the determination of applications for planning permission and local planning authorities should ensure that the potential consequences are taken into account whenever such applications are considered".*

Planning obligations

This section of the guidance provides advice on the use of planning obligations and the process for changing obligations.

Paragraph 001 of Section 23b asserts that planning obligations only constitute a reason for granting planning permission if they meet the following tests:

- they are necessary to make the development acceptable

- they are directly related to the development, and

- they are fairly and soundly related in scale and kind.

Paragraph 004 makes clear that planning obligations *"must be fully justified and evidenced"*.

Travel plans, transport assessments and statements in decision-taking

This section of the guidance provides advice on when transport assessments and transport statements are required, and what they should contain.

Paragraph 004 explains that transport assessments are ways of assessing the potential transport impacts of developments.

Waste

This section of the guidance provides further information in support of the implementation of waste planning policy.

Paragraph 005 directs local authorities to the National Planning Policy for Waste.

Paragraph 10 encourages authorities to promote *"sound management of waste from any proposed development, such as encouraging on-site management of waste where this is appropriate, or including a planning condition to encourage or require the developer to set out how waste arising from the development is to be dealt with"* as well as *"including a planning condition promoting the provision of facilities for the storage and regular collection of waste"*.

Water supply, wastewater and water quality

This section of the guidance advises on how planning can ensure water quality and the delivery of adequate water and wastewater infrastructure.

Paragraph 016 advises that whether water is likely to be a material consideration *"will depend on the proposed development, its location and whether there could be concerns about water supply, water quality or both"*. With regard to water supply it advises that this would normally be addressed through the local plan and is therefore unlikely to be a material consideration for most planning applications. However, it does point out that there might be exceptions to this, for example:

- *"large developments not identified in Local Plans that are likely to require a large amount of water; and/or*

- *where a Local Plan requires enhanced water efficiency in new developments as part of a strategy to manage water demand locally and help deliver new development".*

With respect to water quality paragraph 016 states that it is *"only likely to be a significant planning concern when a proposal would:*

- *involve physical modifications to a water body such as flood storage areas, channel diversions and dredging, removing natural barriers, construction of new locks, new*

culverts, major bridges, new barrages/dams, new weirs (including for hydropower) and removal of existing weirs; and/or,

- *indirectly affect water bodies, for example,*

- *as a result of new development such as the redevelopment of land that may be affected by contamination, mineral workings, water or wastewater treatment, waste management facilities and transport schemes including culverts and bridges;*

- *through a lack of adequate infrastructure to deal with wastewater".*

When assessing the impacts upon water quality, they could include:

- *"the likely impacts of the proposed development (including physical modifications) on water quantity and flow, river continuity and groundwater connectivity, and biological elements (flora and fauna);*

- *how the proposed development will affect measures in the river basin management plan to achieve good status in water bodies;*

- *how it is intended the development will comply with other relevant regulatory requirements relating to the water environment (such as those relating to bathing waters, shellfish waters, freshwater fish and drinking water) bearing in mind compliance will be secured through the Environment Agency's permitting responsibilities".*

NATIONAL POLICY ON ENERGY

Overarching National Policy Statement for Energy (EN-1): EN-1 was published by the Department of Energy and Climate Change (DECC) in July 2011 with a stated intention to provide national policy for consideration of proposals for energy infrastructure dealt with by the Infrastructure Planning Commission under the provisions of the Planning Act 2008. However, the Statement indicates that it is likely to be a material consideration in decision making on planning applications that fall under the Town and Country Planning Act (as amended). It indicates that whether and to what extent the Statement is a material consideration will be judged on a case by case basis. There are a number of policy objectives within the policy document that are considered to be relevant.

These objectives include, amongst other things, the need to:

- meet legally binding targets to cut greenhouse emissions by at least 80% by 2050, compared to 1990 levels, which will require major changes in the way that energy is generated and used by individuals, industry and the public sector;
- have secure and reliable supplies of energy resources to be achieved by ensuring the existence of reliable supply chains (for example fuel for power stations) to meet demand as it arises;
- to have a diverse mix of technologies and fuels, including the need to source fuels from a wide range of locations;
- to address issues raised by increased imports of oil and gas as North Sea reserves decline in an environment where energy demand is rising and supply is increasingly politicised; and

- to make substantial and timely investment in new infrastructure over the next two decades, including in new fossil fuel generating capacity during the transition to a low carbon economy.

Annual Energy Statement (AES) 2014: Published by DECC on 6 November 2014 sets out the Government's progress against its energy policy priorities, namely:

1. *supporting consumers and keeping energy bills down;*

2. *supporting investment in the UK's energy infrastructure; and*

3. *promoting action in the EU and internationally to maintain energy security and mitigate dangerous climate change as we chart the way towards a global deal on climate change in 2015.*

In summary, the Government's energy policies "seek to meet three primary objectives: ensuring light, power, heat and transport are affordable for households and businesses; providing energy security; and reducing carbon emissions in order to mitigate climate change. In addition, government policy supports the energy sector in its role as a major contributor to the UK economy" and the fundamental aim of the AES is to provide guidance on how the UK can move towards an Energy secure future, ensuring that all energy consumers have access to reliable and secure energy supplies. The AES 2014 remains a material consideration until such a time as it is superseded.

NATIONAL POLICY ON CLIMATE CHANGE

White Paper on energy ("Meeting the Energy Challenge") (2007): Published by the Department of Trade and Industry on 23 May 2007 sets out the Government's intended approach to the two main challenges:

- cutting greenhouse gases to meet climate change objectives and targets, and

- ensuring the availability of secure, clean and affordable energy as imports replace declining North Sea production.

The White Paper identified that these challenges should be addressed in a way that was consistent with energy policy goals including cutting CO_2 emissions, maintaining reliability of energy supplies, promoting competitive markets and ensuring that every home is adequately and affordably heated.

Climate Change Act 2008: This Act requires that levels of the main greenhouse gases in 2050 emitted by UK households, industry, transport and the energy generation sector are at least 80% lower than 1990 levels.

UK Low Carbon Transition Plan – National strategy for climate and energy (2009): This document published by DECC proposes a move towards a system based on renewables in order to meet climate change objectives, including relevant obligations in the Climate Change Act of 2008. The Plan identifies that there will be a continuing need for energy generation from fossil fuel sources, including gas, as part of this transition together with an emphasis on use of associated carbon capture technologies in order to help meet climate change objectives.

Carbon Plan – Delivering our low carbon future (2011): Published by DECC in 2011 this document outlines the Government's plans for achieving the greenhouse gas emissions reductions it has committed to via the Climate Change Act 2008, including actions and milestones.

Paris Climate Change Agreement: Under the United Nations Framework Convention on Climate Change this Agreement aims to *"set a new goal to reach net zero emissions in the second half of the century" "to limit warming below 2°C and strive to keep temperatures at 1.5°C above pre-industrial levels"*. This Agreement was agreed on 12 December 2015 and came into force on 4 November 2016.

NATIONAL POLICY ON NOISE

Noise Policy Statement for England: *'Significant observed adverse effect level'* (SOAEL) is defined as the level above which adverse effects on health and quality of life occur and *'lowest observed adverse effect level'* (LOAEL) is defined as the level above which adverse effects on health and quality of life can be detected. While taking into account the guiding principles of sustainable development, this policy has three main aims:

- *"significant adverse effects on health and quality of life should be avoided*
- *where the impact lies somewhere between LOAEL and SOAEL, it requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life, and*
- *where possible, positively to improve health and quality of life through the pro-active management of noise".*

NATIONAL POLICY ON WASTE

National Planning Policy for Waste: States that, when determining waste planning applications, waste planning authorities should amongst other matters *"consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B and the locational implications of any advice on health from the relevant health bodies"*. The locational criteria in appendix B are:

a. protection of water quality and resources and flood risk management;

b. land instability;

c. landscape and visual impacts;

d. nature conservation;

e. conserving the historic environment;

f. traffic and access;

g. air emissions, including dust;

h. odours;

i. vermin and birds;

j. noise, light and vibration;

k. litter; and

l. potential land use conflict.

This document confirms that local planning authorities should concern themselves with implementing the planning strategy in the local plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced.

CONSULTATIONS

Highways: Having considered the submitted Transport Statement and considered its contents, raise no objection subject to a condition to secure the traffic management and inspection/mitigation works set out within the proposed methodology.

Environment Team (Ecology): No objection to the application. A planning condition is proposed to secure biodiversity enhancement in accordance with the National Planning Policy Framework.

Historic Environment Record (Archaeology): The submitted Heritage Impact Assessment is sufficient to assess the impact on the application site and on Thornholme Priory. Any harm to the scheduled monument will be less than substantial. The proposals will not directly affect any archaeological heritage assets. No objection is raised and no mitigation or conditions are necessary.

Environmental Health: No objection subject to conditions in respect of noise and light.

Public Rights of Way: No response received.

Environment Agency: The site has a current Environmental Permit for the proposed operations. The revised scheme set out in the application documents will only enhance the environmental protection measures already agreed for the site.

Natural England: Initially requested clarification that the input into the gas engine and flare will be below 20MW. Following further clarification that the input will not exceed 20MW Natural England has confirmed that they are satisfied that the proposal will not have a significant impact on Broughton Far Wood SSI and raise no objection to the proposal.

Natural England would expect the LPA to assess and consider the other possible impacts resulting from this proposal on local sites, local landscape character and local or national biodiversity priority habitats and species.

Natural England welcomes the proposed biodiversity enhancement measures as detailed in Section 7 of the Updated Ecological Appraisal.

Lincolnshire Wildlife Trust: No response received.

Cadent Gas: Raise no objection. Make informative comments relating to the presence of operational gas apparatus in the area and the requirement for the developer to liaise with Cadent's Plant Protection Team.

Humberside Fire and Rescue: Raise no objection. Make informative comments relating to the provision of water supplies for fire-fighting.

PARISH/TOWN COUNCILS

Appleby Parish Council: The Parish Council believes that it has insufficient technical knowledge to comment on the application overall, but would like reassurances as to how the new application will overcome concerns about spring water contamination.

Broughton Town Council: Strongly object to the proposed development due to concerns of the potential hazard to drinking water in the future.

Brigg Town Council: No objection.

PUBLICITY

Under the provisions of the Town and Country Planning (Development Management Procedure) Order 2015, this application has been advertised by means of a site notice being posted close to the site and a notice being published in the Scunthorpe Telegraph.

At the time of writing this report more than 80 letters of objection have been received. Of these representations, multiple responses have been received from certain individuals. There is a vast spatial distribution to the representations, with a large number of responses being received from addresses outside of North Lincolnshire. Furthermore, whilst some representations have been received citing objections to this specific proposal, the vast majority are more general responses that object to fracking and/or the production of fossil fuels in North Lincolnshire or, indeed, the rest of the country.

The representations received in opposition to the application raise the following concerns/issues:

Operational issues

- The applicant seeks to mislead by disassociating their proposal from fracking.
- The key features defining fracking include fluid and proppant being injected at very high pressure to open and keep open fractures in target rock. This is exactly what proppant squeeze is designed to do and so this application is for fracking.
- This is a fracking application.
- Fracking is extremely dangerous and is categorised by the HSE as ‘high risk’.
- Due to the production from fracking wells declining rapidly, it is likely that the well will need to be re-fracked and/or extensions or other wells drilled.
- This development will result in further wells.
- It is likely that repeated well stimulation will be required.
- Only a third of recoverable oil will be extracted via Wressle-1, so at least two more wells will be needed here.

- Any future applications for additional wells will be considered in isolation and will result in an accumulation of chemicals and polluted water. How will this be monitored and who will decide when there is a problem and how it will be dealt with?

- The development will result in radioactive and carcinogenic waste. How will this be disposed of?

- The proposal includes the injection of toxic chemicals into the earth.

- The toxic chemicals proposed cannot be safely stored on site, or transported to the site.

- The proposal includes a range of industrial chemicals (hydrocarbon fuels, lubricants, acids, solvents and proppants). The applicant cannot guarantee 100% failsafe handling at the Wressle site.

- Potential impacts of acidisation are not fully understood and the potential for chemicals to remain in the ground is concerning.

- The technology to be used in the development has not been properly tested.

- The Environment Agency has no experience of the use of hydrofloric acid in the onshore oil industry.

- Hydrofloric acid is extremely hazardous and even eats through metal and as such cannot be stored or transported safely.

- Effective monitoring of the process is not possible.

- There are no effective regulations in place for this type of development.

- The Environment Agency has neither the manpower nor expertise to monitor the works and relies on self-regulation. This has failed in other instances.

- Despite the licensing regimes operated by the Environment Agency, other government bodies have raised concerns regarding the general ability of regulators to assess impacts so deep underground.

Climate change

- The application does not present evidence or assessment of the impact of the activity on climate change mitigation despite being an application for the production of 100,000 cubic metres of oil and gas.

- It was made clear by the agreement of the Secretary of State with the Inspector on the Chat Moss Peat Works appeal that planning decision-makers must take account of the need to reduce greenhouse gas emissions.

- The proposed development will increase dependence on fossil fuels and thereby delay the switch to clean, renewable energy.

- We should leave hydrocarbons in the ground and focus on clean, renewable energies.

- Known fossil fuel reserves currently in production are approximately five times what can be extracted and still meet with the climate change commitments made by the UK government in Paris last in December 2015.

- There are sufficient oil reserves in the North Sea.

- The development will result in the release of methane into the atmosphere.

- The volumes of gas in the planning statement are unclear.

- The flaring of methane on the site will result in an increase in global warming.

- The development will result in the release of greenhouse gases.

- Methane is much more potent than CO_2 as a greenhouse gas.

Hydrology and hydrogeology

- The site is located in an area of hydrogeological sensitivity.

- This is a Groundwater Vulnerability Zone close to several aquifers and Ella Beck. There is no guarantee that these water sources will not be contaminated via spills and leaks.

- How can the Environment Agency guarantee that the development will not prejudice the UK's fresh water supply?

- Where will the water to be used for the proppant squeeze come from? Does the company have its own abstraction licenses?

- The proposed development may result in contamination of Ella Beck.

- Surface water is to be discharged to Ella Beck, following cleaning. What happens if there is a failure of the lining of the beck or a spillage on site?

- The proposed proppant squeeze process will turn clean water into polluted water that cannot be used again. Where will this water go?

- The proposal involves drilling through an aquifer and there is no guarantee that the casings will not crack.

- The well casings will leak at some point. The oil and gas industry has a bad record for this.

- The proposal will impact on boreholes which provide water to the British Steel site, potentially contaminating and/or lowering water yields from these boreholes.

- Any spillages or contamination of the site would affect adjacent farmland which is used for crop growing.

- There is no guarantee that pollution of groundwater will not occur following decommissioning of the site as monitoring is only required for five years.

- The additional information submitted with this application fails to allay previous concerns regarding ground contamination.

- The overall risk of contamination remains ambiguous.

- Groundwater protection seems to be overly reliant on best practice drilling techniques and based on risk management rather than the provision of tangible mitigation.

- There is no absolute scientific proof that groundwater contamination will not occur. The council would be sensible to again invoke the precautionary principle linked to the EU Water Framework Directive.

- Whilst considered to be unlikely, has there been consideration for flooding if it does occur? What would be the implications of this for waste water stored on site and the capacity of the impermeable membrane to hold such water?

- The bund surrounding the site is full of rabbit holes.

- The water monitoring boreholes are uphill so the results will always come back as clean.

Ecology

- Wildlife in adjacent woodland, Far Wood SSSI and Clapgate Pit Nature Reserve may be disturbed by lighting, noise, vibration and increased HGV traffic.

- There is a nature reserve and ancient woodland around the site.

- The light, noise and air quality impacts of the development could impact on protected species in the locality.

- This is a water vole sensitive area.

Landscape

- The proposed development constitutes industrialisation of the countryside.

- This development would destroy a beautiful part of the countryside.

- Industrial operations and structures would have an adverse visual impact on the open countryside.

- This development would result in other well sites in the countryside which would have a cumulatively degrading impact on the local landscape.

- A landscaping scheme should be required. It was stated in the determination of the exploratory drilling application that the reason no additional landscaping was required was due to the short-term nature of any impacts.

Noise

- The proposal will result in noise from 24 hour/day drilling over several weeks, and further noise from compressors, pumps and HGVs.

- Traffic noise from the development needs to be taken into account.
- Noise from the development will destroy the tranquillity of the area.
- Noise during the evening can adversely affect health and wellbeing.

Air quality

- How will air quality be monitored? Will there be alarms on site?
- The development will result in methane and other pollutants being released into the atmosphere.
- Will fine silica dust get into the air?
- There will be air pollution as a result of traffic movements to and from the site.
- There will be pollution of the air from the flaring of gases on site.
- Scunthorpe was recently listed in the top 15 towns in the country for air pollution and action should be taken to reduce pollution and permission should not be granted for developments such as that proposed, which would result in further pollution.

Health and wellbeing

- Concerns over the impacts of water and air pollution, and noise and sleep disturbance, on public health.
- More information is needed in relation to health implications.

Highways

- The development will result in significant traffic generation on rural roads.
- The entrance to the site is on a sharp bend with limited visibility.
- The B1208/A18 junction is unsuitable for a large increase in HGV traffic.
- The local roads are unsuitable for large numbers of HGVs.
- No detail on how waste water will be disposed of. If this needs taking off site to an Environment Agency facility then it would put additional pressure on the local highway network.
- If the HGVs are carrying chemicals to the site then this will be extremely dangerous.
- The development will pose a risk to pedestrian, cyclist and horse riders' safety in the area.

Lighting

- The development will introduce artificial lighting into a predominantly dark rural area.

- Light pollution from night-time working.

Seismicity and/or vibration

- The development site is located on a prominent fault line.
- The proposed development may cause earthquakes in the area.
- There are already subsidence problems in the area due to ore mining and this will be exacerbated as a result of vibrations from fracking activities.
- Increased seismic activity and vibrations from drilling could affect the foundations of houses in the area.
- The Government's ESIOS Service Plan makes it clear that the geology is far more complex in the UK than in the USA and Australia and that current technology cannot effectively monitor what the impact of such process will be.

Socio-economic

- The development would have little or no benefit to the local community.
- The proposed development is economically high risk in a time of geopolitical uncertainty.
- The development will only employ a small number of people.
- The proposal results in the loss of agricultural land which could be used for the growing of crops.

Restoration

- Concerns have been raised with regard to the restoration of the site and how it will be monitored to ensure that it is safe and not contaminated.
- Concerns relating to the length of time (five years) that monitoring is required on the site following restoration, that this is not long enough and that there could be contamination that arises after this time.
- The company could be long gone before the full effects of the development are felt.
- The operator is a Ltd company. Who will pay for restoration of the site or remediation of any damage if they go bankrupt?
- There is no insurance provision for homes and businesses which may be damaged by the development.
- The site should be restored to agriculture.

Miscellaneous issues

- If approved, the development would set a precedent for future well sites in the area.

- There are no regulations in place which satisfactorily control developments of this type.
- There is no guarantee that oil produced from the well will be for our own use and it could be sold to the highest bidder.
- Objection to the Government's policy/approach towards fracking.
- Devaluation of local house prices.
- Fracking has caused severe problems in America and Australia and has been banned in many countries.
- This development has been refused by the local planning authority twice and dismissed at appeal. The current application is almost identical to the previous applications and should also be refused.
- Egdon are in breach of the planning conditions imposed by the inspector requiring the site to be restored by 28 April 2018.
- The exploratory application was only granted planning permission due to the short-term nature of any impacts. Therefore the proposed development should be refused on the basis that any impacts would be long-term.

At the time of writing this report the local planning authority has also received fourteen letters in support of the application. Comments made in support include:

- The country needs a selection of energy sources going into the future. As long as the development is as safe as possible then permission should be granted.
- The country needs its own oil supply.
- This is conventional extraction, not fracking, and this method of extraction has been employed in this country for many years.
- Provided that safety and environmental issues are addressed the development will provide huge employment benefits and tax revenues.
- All conditions and issues raised by the inspector at the previous Inquiry have now been addressed.
- The Government now sees the benefit of approving such applications.
- Development like this are vital for energy security, jobs and the economy.
- Importing oil and gas from abroad to meet the country's need is not saving the planet.
- There are strict regulations and controls to make this a safe process. Such regulations and controls are not necessarily applied in countries where we currently import oil and gas from.
- Following the decision on Brexit the country needs to become self-sufficient.
- If oil prices rise then everything rises in price.

It is important to note that there are matters that have been raised in objection to the proposed development to which regard cannot be had in the determination of this planning application. These include:

- negative impact on property prices;
- lack of regulations;
- lack of resources on the part of regulatory bodies;
- would set a precedent;
- unproven technology; and
- other matters controlled under other non-planning legislation.

STATEMENT OF COMMUNITY INVOLVEMENT

No Statement of Community Involvement has been submitted in support of this planning application. However, this is the third application for long term hydrocarbon production on the site and follows the dismissal of the previous two applications at Public Inquiry in January 2018. These previous applications were subject to significant public consultation.

In addition, Egdon are proposing to set up a community liaison group should planning permission be granted. The intention would be that the group would meet on a regular basis as required, to provide information on the planned operations, to listen to local concerns and respond to these concerns and any issues which may arise from the proposed development. The details of the participants, terms of reference and schedule of meetings would be agreed through consultation with both Broughton Town and Appleby Parish Council.

ASSESSMENT

The application site is a piece of land which measures approximately 1.85 hectares in area and lies within a flat, rectilinear field located approximately 1.6 kilometres to the north of Wressle and approximately 1.7 kilometres north-east of Broughton. The site is outside of any defined development boundary and as such is located with the open countryside.

The site currently comprises an existing temporary, exploratory well site which was granted planning permission by North Lincolnshire Council on 18 June 2013 (MIN/2013/0281). The wellsite pad and earth bund is contained by a 2 metre high fence. Following the drilling of the well in 2014, and subsequent flow testing operations during 2015, there is currently only a limited amount of equipment and facilities on site. The development on site at present comprises:

- a production tree (a system of valves to manage hydrocarbon flow and well entry) over the wellhead;
- a metal container over-housing the production tree;
- a temporary bund with some test equipment and pipework;
- a diesel fuel tank, sited within a separate temporary bund;

- some stored residual production tubing and ancillary pipework;
- site office/cabin;
- 3 storage containers;
- an access gate and hardstanding for parking for up to 12 vehicles; and
- 4 groundwater monitoring boreholes installed within the confines of the application site.

The site is partially screened along its northern and western boundaries by existing earth bunds.

The surrounding landscape is characterised by a mix of flat agricultural land and areas of woodland. There are blocks of woodland located to the south, east and west of the application site. With regard to existing structures within the surrounding landscape, there are agricultural buildings to the north of the site and a sub-station to the north-east. Additionally, a network of pylons and electricity lines cross the agricultural fields to the north and east of the site.

The closest residential property to the application site is North Cottage, located approximately 530 metres to the east. This dwelling forms part of a small residential development at Lodge Farm, to the west, which is centred around the original farmhouse. Decoy Cottage, located to the south, is approximately 580 metres away from the site.

Access to the site is currently obtained via an existing agricultural track. This track passes in a westerly direction from the B1208, through Lodge Farm courtyard and runs partly parallel to Ella Beck before crossing over an existing bridge into the existing arable field (in which the site lies). There are no public footpaths within the immediate vicinity of the site, with the nearest footpath 215 lying approximately 0.8 kilometres away.

Constraints

The application site is not designated as a national or local wildlife site. The closest statutory designated site, Broughton Far Wood SSSI, lies to the north-west, approximately 700 metres away. This designated site is part of an extensive block of commercial woodland and includes, in the north-east corner, Claygate Pits, a former quarry with rich limestone flora. Broughton Alder Wood, another SSSI, is located approximately 1.3 kilometres to the west of the application site. Broughton Alder Wood lies in a shallow valley, fed by springs that arise in adjacent pastures and forestry plantations. The nearest non-statutory site is Rowland Plantation, a Local Wildlife Site which is approximately 270 metres to the north of the application site.

The application site is not designated as an area of national or local archaeological importance. The closest designated heritage asset is a Scheduled Ancient Monument and Protected Wreck Site located approximately 1.5 kilometres to the north, known as Thornholme Augustinian Priory. This monument includes the earthwork remains of Thornholme Priory, including the church, cloister and other inner court buildings as well as the service buildings of the outer court. The nearest listed building to the site is Broughton Grange Farmhouse, which is grade II listed and is located approximately 600 metres to the south. Approximately 10 metres to the east of Broughton Grange Farmhouse is the coach house and stables which are also grade II listed.

The site is located in an area which was previously designated as being of 'high landscape value' in the North Lincolnshire Local Plan (2003). However policy LC8 of the local plan is not a saved policy and as such this policy and the aforementioned landscape designation no longer applies. Therefore the site is not designated as being of special landscape importance.

The application site is located in flood zone 1 of the Environment Agency flood maps and the Environment Agency has confirmed that the site is not considered to be in an area of high flood risk. The eastern edge of the site abuts flood zone 2/3a (fluvial) of the Strategic Flood Risk Assessment, with the access to the site being located in this flood zone and the rest of the site being within flood zone 1 (low risk).

Water abstraction wells are located within 100 metres of the site but are separated by Ella Beck, a 'main river' (as defined by the Environment Agency), which has a flow monitoring station adjacent to the site. There are also identified secondary aquifers lying beneath the site.

Planning history

On 18 June 2013 planning permission was granted by North Lincolnshire Council for the construction of a temporary wellsite for the drilling of an exploratory borehole with associated structures and works. The consented exploratory borehole was drilled in 2014 and flow testing operations undertaken in 2015. Since these previous operations were undertaken the site has been largely cleared, with a limited amount of equipment and structures remaining.

On 11 January 2017 North Lincolnshire Council Planning Committee refused planning permission (MIN/2016/810) for the retention of the existing wellsite and access road and for the long-term production of hydrocarbons from the site. This decision was contrary to the recommendation of officers. The reason for refusal was as follows:

"Insufficient information has been submitted in support of the planning application to allay the concerns of the local planning authority with regard to ground contamination from both water run-off and the infiltration of water used in the development into water courses. The proposal would therefore have an unacceptable impact on local residents, the community and the local economy. The proposed development is therefore considered to be contrary to saved policies M23, DS13 and DS15 of the North Lincolnshire Local Plan (2003) and policy CS18 of the North Lincolnshire Core Strategy (2011)".

The applicant lodged an appeal with the planning inspectorate against the refusal of MIN/2016/810 (Appeal A), whilst also submitting an application (PA/2017/268) to extend the life of the original 2013 planning permission (MIN/2013/0281), referenced above, by varying condition 24 of that permission. The intention of 2017/268 was to allow the applicant's time to prepare a new application for long-term hydrocarbon production and for the appeal against the refusal of MIN/2016/810 to be determined.

The applicant subsequently submitted a new application for hydrocarbon production from the site (PA/2017/696) on 4 May 2017 as a re-submission of the previously refused application (MIN/2016/810). Both PA/2017/268 (extension of time) and PA/2017/696 (hydrocarbon production) were taken to planning committee on 3 July 2017 and were refused on the following grounds:

- PA/2017/268 – *"Exploratory works have been completed and there is no justified reason to extend the time period for restoration of the site. Therefore the proposed variation of condition 24 is contrary to policy M21 of the North Lincolnshire Local Plan.*

- PA/2017/969 – *"Insufficient information has been submitted in support of the planning application to allay the concerns of the local planning authority with regard to ground contamination from both water run-off and the infiltration of water used in the development into water courses. The proposal would therefore have an unacceptable impact on local residents, the community and the local economy. The proposed development is therefore considered to be contrary to saved policies M23, DS13 and DS15 of the North Lincolnshire Local Plan (2003) and policy CS18 of the North Lincolnshire Core Strategy (2011)".* This is identical to the reason for refusal issued for the previous application for hydrocarbon production at the site (MIN2016/810).

Egdon lodged further appeals against the refusal of PA/2017/696 (Appeal B) and PA/2017/268 (Appeal C) on 21 July 2017 and 23 August 2017 respectively. All three appeals (A, B and C) were co-joined and a public inquiry was held in November 2017. The Inspector's decision letter was issued on 4 January 201. Appeals A and B (for hydrocarbon production) were dismissed and Appeal C (extension of time) was allowed, extending the period for restoration until 28 April 2018.

Following the public inquiry Egdon stated their intention to address the inspectors concerns and submit a further application for hydrocarbon production from the site (this current application). To allow them to produce this application and for the existing consent to remain extant during its determination Egdon submitted a further application (PA/2018/794) to vary condition 11 of Appeal C to extend the time period for restoration of the wellsite for an additional 12 months. PA/2018/794 was presented to North Lincolnshire Council Planning Committee on 1 August 2018 and was refused on the following grounds:

"The proposal conflicts with paragraph 205 of the National Planning Policy Framework and policy M21 of the North Lincolnshire Local Plan, which require that restoration and aftercare is provided at the earliest opportunity. Furthermore, it is considered that material considerations would not outweigh this policy conflict."

Egdon have now lodged an appeal against the refusal of PA/2018/794 and this appeal is currently pending.

Reasons for dismissal at inquiry and measures to address them

The reasons that resulted in the refusal of appeals A and B were set out in the Inspector's decision letter dated 4 January 2018. The inspector concluded that Egdon had failed to demonstrate that unacceptable adverse impacts to groundwater resources and water courses would not arise during the life of the development. The inspector identified the following key issues:

a) the absence of a ground investigation report;

b) the absence of sufficient evidence of the adequacy of the Geosynthetic Clay Liner (GCL) and its covering (stone thickness); and

c) uncertainty with regards to the near surface geology and specifically the presence of capping layers to the underlying aquifers.

The applicants have provided updated and revised technical reports covering archaeology and heritage, ecology, noise, transport and hydrogeology and flood risk. The application is also accompanied by additional reports covering civil and structural design, landscape and visual impact and lighting. All of the previous drawings have been updated and revised, as has the Planning and Sustainability Statement, which includes a copy of the approved Environmental Permit. The applicants have specifically addressed the key issues raised by the Inspector in the following ways:

- a geotechnical investigation has been carried out to confirm the nature of the underlying strata, and a ground investigation report has been prepared by Opus International Consultants (UK) Limited;

- the ground investigation report has been used by Alan Wood and Partners, an independent firm of consulting civil and structural engineers, to prepare a Civil and Structural Design Statement (CSDS). The CSDS forms part of this planning application submission and the ground investigation report is an appendix to the CSDS;

- the CSDS summarises the redesign and reconfiguration of the wellsite;

- the reconfiguration will result in the installation of a new high-density polyethylene (HDPE) impermeable membrane and additional associated protection layers across the entire wellsite. As part of this, the existing site surface aggregate will be stripped and regraded, before being re-laid on top of the new HDPE impermeable membrane system;

- to confirm the suitability and thickness of the surface aggregate, a representative sample of the current site aggregate and proposed HDPE impermeable membrane system has been subject to independent testing to simulate the ground-bearing pressure of the proposed installation. This involved a cylinder test under laboratory conditions by BICS Laboratories Ltd, an independent United Kingdom Accreditation Service (UKAS) laboratory, using Environment Agency Methodology (LFE2, 2011);

- a load bearing capacity test has been undertaken on the existing substrate (subgrade) ("Terzaghi's method" (1943));

- as a result of these tests (included with the CSDS), the design team at Alan Wood and Partners, in consultation with the impermeable membrane manufacturer Naue, has assessed that a 300mm thickness of screened and graded stone platform material (aggregate) provides effective protection to the proposed HDPE impermeable membrane system. This is confirmed in Appendix 7 of the CSDS.

- a Construction Quality Assurance (CQA) plan will be used to ensure the installation of the lining system is robust and constructed to the highest engineering standards;

- Egdon commissioned an independent Hydrogeological Risk Assessment (HRA) study of the wellsite using the services of Envireau Water Limited. The objective of the study was to address uncertainty identified by the Inspector with regard to near surface geology and specifically the presence of capping layers to the underlying aquifers;

- core samples from 2 new (2018) boreholes on the wellsite have undergone laboratory testing to quantify the hydraulic conductivity of key claystone sequences. The data generated from these tests provide evidence that demonstrates the existence of a

laterally continuous impermeable claystone capping layer above the Primary Aquifer in the Lincolnshire Limestone formation beneath the wellsite;

- Envireau Water's report defines a hydrogeological conceptual model (GCM) which has utilized regional, local and wellsite specific data, including the drilling of site investigation boreholes and laboratory testing of core samples;

- the HCM has assessed and quantified the risk to 'water receptors' e.g. water supplies (public, private and industrial) using the EA's Source-Pathway-Receptor methodology. The assessed risks relating to all identified hazards range from 'Low' to 'None'.

The proposed wellsite configuration has been revised following the public inquiry and these reconfiguration works include the installation of a 2mm fully welded HDPE impermeable membrane (Naue 'Carbofol') and associated protective geotextiles laid over the existing Geosynthetic Clay Liner. This is a thick plastic membrane of completely different design to the existing GCL, which was the subject of concerns at the public inquiry. The installation guidelines for Naue Carbofol does not specify a minimum aggregate cover. Instead, it makes reference to a 'project specification', which is an installation specification developed and agreed between the manufacturer and Egdon's consulting civil and structural engineers. The project specification has been informed and validated by cylinder testing, which determines the specification of the protective geotextile, necessary to ensure the HDPE impermeable membrane is protected throughout the life of the wellsite, including areas of frequent traffic. Naue has agreed the project specification with Egdon's consulting civil and structural engineer as set out in the letter which is included in the CSDS.

Although Naue and the consulting civil and structural engineers support the use of a 300mm cover over the site, including the areas of frequent traffic, the area of most prolonged and frequent traffic use is proposed to have a poured reinforced concrete internal roadway constructed as part of the wellsite reconfiguration works. The internal roadway performs 2 functions. Firstly, it minimises any mud and debris being transferred from the access track on to the wellsite, and secondly, its reinforced concrete construction provides even greater weight distribution and protection above the HDPE impermeable membrane.

Proposed development

Whilst this is a stand-alone application which must be assessed on its own merits, it essentially forms a re-submission of the previously refused applications for hydrocarbon production at the site (MIN/2016/810 and PA/2017/696) and the application site and proposed development remain the same. However, as detailed above the technical documents supporting the application have been updated and revised and the embedded mitigation proposed as part of the scheme has been re-designed. The application seeks planning permission for the retention of the existing wellsite and access road and for the long-term production of hydrocarbons.

There are four main phases of the proposed development consisting of site reconfiguration and set-up works; well operations; production of hydrocarbons and well decommissioning and restoration. The proposed works necessary for the long-term production of hydrocarbons from the site are:

- installation of additional security facilities;

- extension of the current wellsite area by 0.12 hectares to manage site access and accommodate additional security facilities;

- site reconfiguration to provide a new HDPE impermeable membrane, French drain system and an approved surface water interceptor;

- the construction of a purpose-built bund area to facilitate storage tanks, a tanker loading plinth and an internal roadway system;

- installation of production facilities and equipment;

- installation of up to 2 new groundwater monitoring boreholes and deepening of 3 of the 4 existing boreholes;

- a workover to facilitate the removal of the existing completion (tubing and associated subsurface wellbore equipment) and replacement with a new completion;

- one or more of the following well stimulation operations to enable the production of oil and gas at the site:

  - acidisation;

  - proppant squeeze;

  - a sidetrack drilling operation with a drill rig up to 40m in height.

- the production of oil and gas for a period of 15 years;

- grid connection and installation of a gas engine, in the event of sufficient volumes of gas, in order to generate electricity for site use and export of surplus back to the distribution network; and

- well decommissioning and site restoration.

It is proposed that one or more productions operations will be employed to increase the flow of oil and gas at the site. These operations consist of:

- **Side track drilling:** This includes the mobilisation and assembly of a drill rig (maximum 40 metres height), leading to the drilling of a short side-track borehole of approximately 25 metres in length from the existing casing, aiming to intersect the hydrocarbon bearing reservoir that may have formation damage. This overall operation is expected to last three to four weeks with the drilling itself forming a small element of this.

- **Proppant squeeze:** This process involves a slurry of sand and gelled water being injected through the existing perforations in the well casing into the formation to reinstate and enhance channels of communication through near-wellbore formation, which has become blocked with drilling muds during the initial drilling operation. The fluid is pumped under pressure to create small fractures in the near well-bore, and the injected particles then acts as the “proppant” to “prop open” the fractures and enable enhanced oil recovery. The proppant squeeze operation involves pumping for approximately one hour to measure rock properties and then again for approximately one to two hours the following day to create a fracture and inject the proppant. This

operation will be carried out once only. It would involve around 20-30 tons of sand (1-2 lorry loads) with 150 cubic metres (150,000 litres) of gelled liquid.

- **Acidisation:** A low concentration of acid solutions would be injected through the existing perforations in the casing in order to improve the permeability of the Ashover Grit sandstone to enable flow from the formation to reach its full potential. It is stated that at Wressle, the sandstone rock is made up of different grain types and so a combination of acid types is needed to target quartz, clays and carbonates within the sandstone. This would include approximately 50 cubic metres (50,000 litres) of dilute hydrochloric acid, ammonium biflouride and ammonium chloride, together with corrosion inhibitors and surface tension reducing additives being injected. The applicant has confirmed that approximately 85% of this fluid mix would be water. The acid mix is intended to treat the near-wellbore area only, extending to a radius of approximately 4-6 metres from the wellbore. The acid mix that is injected creates hydrofluoric acid deep underground near the wellbore area, and this reaction dissolves the fine particles and solids that are blocking the natural pores of the rock and the perforations in the arising. The applicant has confirmed that there will be no transportation of hydrofluoric acid to or from the site. As soon as the acid treatment enters the sandstone reservoir, the chemical reaction starts and very quickly the acids are “spent” through the dissolution of the particles and solids blocking the rock pores and casing perforations. The fluids are then flowed back to the surface and any residual acidic properties are treated with soda ash. It is anticipated that this entire process would be completed within three days, with no additional equipment being required.

For production operations, fluids will be recovered from the well either by free-flowing naturally, or with the aid of a surface pump facility that artificially lifts fluids to the surface. The choice/type of pump mechanism has not been confirmed but it would likely comprise a ‘nodding donkey’ or similar surface pumping system.

Separated fluids would be stored within storage tanks on site. Oil would then be collected by road tanker and sent off site for processing, and water would be collected by a licensed waste contractor and managed via a licensed facility.

The planning application provides full details of fluid containment systems for the proposed development. There are three principal containment mechanisms on site referred to as primary, secondary and tertiary containment. Primary containment consists of fluid storage such as tanks and pipelines. Secondary containment consists of bunds or containment mechanisms within which the primary containment is situated (e.g. storage bunds). Finally, tertiary containment consists of the system designed to prevent or minimise the effects to the environment from a release of product or firewater that would result from a loss of primary or secondary containment (i.e. the HDPE membrane and GCL liner).

There is no requirement to tanker in or abstract potable water as all water at the wellsite will be supplied via the existing mains connection. Other than the proposed proppant squeeze and acidisation, the only water that will be used will be for drinking water and toilets – comprising less than 0.2m3 or 200 litres per day for “domestic” type use.

It is expected that site energy requirements will be provided via electricity from the main electricity distribution network, by running either underground or overhead cables to the site from a local connection point. It is not expected that the grid connection will be completed

prior to production starting, which is why a diesel generator is shown as part of the indicative facilities and equipment.

If gas is evident in sufficient volume during the oil production process, it is planned to use the gas to generate electricity on site via a gas engine and export electricity to the electricity network. The gas engine will be housed in a noise deadening container on site. If this option is proven to not be technically or commercially viable due to low volumes of gas, then the proposal would be to manage gas via an enclosed flare on site, should volumes be sufficient to maintain combustion. For any scenario where gas is evident there would need to be a relief flare on site in the event of equipment failure.

All of the proposed oil and gas production operations outlined above would be subject to the Environmental Permit which has been issued by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2010, as amended.

Once production has ceased, the well would be abandoned by plugging the wellbore in accordance with Department of Energy and Climate Change (DECC) procedures and the site will be restored to agricultural use.

"Fracking"

The applicant has stated in their submission that this application is for 'conventional' oil and gas production and that it is not a 'fracking' application. However numerous responses received in opposition to the application make reference to the proposed "proppant squeeze" process and assert the opinion that this application should be considered as a proposal for 'unconventional' oil and gas production and that it constitutes a proposal for 'fracking'.

A proppant squeeze is where a slurry of sand and gelled water (water and natural gum mixture) is injected through the existing perforations in the casing into the surrounding rock to enhance flow through the near-wellbore sandstone formation. The fluid mix is pumped under pressure to clear any blockage in the perforations and to create very small fractures in the near wellbore area to allow the well to flow efficiently. The process affects an area of a few metres to a few tens of metres around the well.

The applicant's state that this is a small-scale conventional oil field operation which historically has taken place extensively throughout the UK, including Lincolnshire (e.g. nearby Crosby Warren well some 5 miles from Wressle). The fluid is injected for a total of 1–2 hours, with the overall operation taking two days and involving small volumes of up to 20–30 tons of sand (one skip load) with a maximum volume of around 100–150 cubic metres of gelled liquid.

The proppant squeeze has also been referred to by others as a "mini-frac" and there is a common misconception that this is the same as High Volume Fracturing of shale rocks for gas or oil, commonly referred to as "fracking". Fracking is defined in the Infrastructure Act 2015 as the injection of more than 1,000 cubic metres of fluid at each stage of hydraulic fracturing or more than 10,000 cubic metres of fluid in total.

Fracking is the process generally used to produce oil and gas from shale or strata encased in shale. This process of fracking would be used where there are shale rocks deep underground where gas and oil are trapped within the shale itself. Gas and oil will not flow

unless these rocks are “opened up” by fracturing them, using large volumes of water and solids/particles pumped down the steel casing within the borehole. The fluids are pumped under high pressure to generate fractures many hundreds of metres in length within the shale rocks.

In summary, the proppant squeeze should not be confused with High Volume Hydraulic Fracturing (“fracking”). The applicants have confirmed that production operations at Wressle will not, either now, or in the future, involve the process of fracking for shale gas or oil. This area of Lincolnshire does not have the specific rock formations that contain shale gas or oil. The proposed oil field development at Wressle and associated operations are all related to conventional oil and gas.

This issue was duly considered by the Inspector at the public inquiry into the refusals of the previous planning applications on the site. The inspector also concluded that the proposed extraction can be regarded as “conventional”.

On this basis, it is considered that the proposed development does not constitute an application for “fracking”, but relates to conventional oil and gas production.

The principal issues to consider in the determination of this application are assessed below and comprise the following:

- **the principle of development**
- **impact on the landscape**
- **impact on hydrology/hydrogeology**
- **impact on ecology**
- **heritage impact**
- **impact on air quality**
- **noise impact**
- **highway safety**
- **lighting**
- **waste**
- **seismicity.**

Principle

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the Development Plan, unless material considerations indicate otherwise. Such other important considerations include other relevant policy and guidance, particularly national planning policy in the National Planning Policy Framework (NPPF) and other relevant Government policy statements, as well as that which is provided within the National Planning Practice Guidance (NPPG).

Amongst the aims of the North Lincolnshire Local Plan are those ensuring the adequate and steady supply of minerals, preventing the unnecessary sterilisation of mineral resources and sustaining the contribution of mineral-related employment to the rural economy whilst simultaneously ensuring the sustainable use of resources in a way which protects the local environment, both natural and historic as well as safeguarding the amenities of those living and working in local communities (Chapter 15 of the NLLP and Chapter 13 of the Core Strategy relate).

As there is no requirement for specific landbank provision for energy minerals such as oil and gas, and thereby no specific allocations of land for such purposes, each application seeking permission for energy mineral-related development must be considered on its individual merits and with due regard to the relevant development plan policies at the time of the determination of the application.

Without exception the planning policies contained in chapter 15 relating to minerals development within the North Lincolnshire Local Plan have been 'saved' by Direction of the Secretary of State and remain extant in the determination of planning applications. Text within chapter 15 explains that *"An important aspect of mineral planning, which is different to other types of land use planning is that mineral resources can only be worked where they are found"*. This text goes on to state that *"The working of minerals is a fundamentally unsustainable activity. However, while accepting society's unavoidable need for minerals, there is considerable scope for minimising the negative effect of mineral working and conserving resources through proper planning"*. The development of hydrocarbon resources is seen as a national need and prospective developers are not expected to argue need by justifying proposals in terms of their economic credentials.

Saved policy M23 is the most relevant development plan policy in the determination of this application in that it sets out the council's approach to proposals for oil and gas production within North Lincolnshire. Policy M23 states that *"Proposals for oil and gas production facilities will be permitted, provided that the proposal incorporates environmental protection measures that are adequate to mitigate the impacts arising from a long-term or permanent site"*. It is considered that the proposed development complies with the development plan policies, including 'saved' NLLP policy M23 in that the protection of the natural environment (including air, land and water) have been taken into account. The proposal is also considered to comply with NLLP policy M1 in that proposals to minimise visual and other amenity impacts as well as proposals for restoration to a beneficial after-use are considered. Furthermore, the proposal does not give rise to any material conflict with locational policy within the development plan, including policy RD2 of the NLLP which seeks to restrict development in the open countryside, when it is acknowledged (chapter 15 of the NLLP) that "*mineral resources can only be worked where they are found"*. In this regard consideration also has to be given to the existence of infrastructure already in place from the exploratory/appraisal phase.

With regard to other material considerations, paragraph 80 of the NPPF (2018) is supportive in encouraging economic growth and productivity, taking into account local needs and wider opportunities for development. Paragraphs 203 and 205 of the NPPF are similarly supportive of the development of the country's oil and gas resources and this is mirrored in the national policy statements discussed within the Policy section of this report. Guidance set out in the Minerals section of the NPPG (paragraph 124) gives emphasis to the Government's view that, nationally, energy should come from a variety of sources, including oil and gas, and states that when making decisions; authorities should have regard to national energy policy. The Government's Annual Energy Statement (October

2013) referred to in that same paragraph explains that national energy policy has two key drivers: the need for energy security and carbon emission reduction. Whilst acknowledging that renewable energy will have a part to play, the Government's view is that oil and gas, especially indigenous oil and gas, will remain key to energy security and, at the same time, facilitate the reduction in greenhouse gas emissions.

For the reasons outlined in the paragraphs above, it is considered that the proposed development is generally in accord with the relevant development plan policy and is, therefore, acceptable 'in principle'.

Landscape and visual impact

The relevant extant development plan policies against which to assess the proposed development's effect upon landscape and visual impact are 'saved' policy M1 of the NLLP, which requires mineral extraction proposals to mitigate visual and amenity impacts; 'saved' policy RD2 of the NLLP, which seeks to protect the character and appearance of the countryside; 'saved' policy DS1 of the NLLP, which requires all new development to respect and where possible retain and/or enhance the existing landform; and 'saved' policy LC7, which requires special attention to be given to the protection of the scenic quality and distinctive local character of the landscape.

The assessment of the effects of the proposed development in respect of its impact on the landscape and visual amenity is provided within the submitted *"Wressle Well Site, Landscape and Visual Appraisal"* document produced by AECOM on behalf of the applicant's. This document considers the landscape effects (effects on the landscape as a resource in its own right), visual effects (effects on specific views and on the general amenity experienced by people) and provides an appraisal of the likely residual effects. The Report describes the existing landscape and visual characteristics of the Application Site and its context and then analyses the potential landscape and visual effects arising from the Proposed Development.

The application site is not located in any area designated either nationally or locally for its landscape importance. The surrounding has a largely rural character and the area is predominantly flat, arable farmland broken up by blocks of deciduous and coniferous woodland. In the immediate vicinity around the site there are numerous man-made features within the landscape, including large electricity pylons which run through the adjacent field to the north and east of the site, there are also large agricultural buildings to the north and a sub-station to the north-east. Furthermore, there are no public rights of way running through or adjacent to the site.

The Site is encompassed by the Heathy Woodland Local Character Type (LCT) as defined in the *'North Lincolnshire Character Assessment and Guidelines'*. The 'key characteristics' of this regional LCT, reaching from Risby Warren in the north to Broughton and the M180 motorway corridor in the south, can be summarised as follows:

- Elevated, gently undulating landscape of deciduous and coniferous woodland containing areas of open scrub and heathland;

- Attractive character, intimate and enclosed, within the woodland contrasting with more open heath areas;

- Contains three SSSI's (Broughton Far Wood, Broughton Alder Wood and Risby Warren) and Ancient replanted woodland at Far Wood, West Wood and Spring Wood;

- Views to the west towards Scunthorpe restricted by vegetation; and

- Local historical interest provided by Ermine Street, a Roman road that bisects the woodland.

The well pad and fenced compound covers a relatively small area and is already in place and has been since the exploratory borehole was drilled in 2014. The LVA states that the Site is considered to be of very low landscape value by virtue of land use, scenic quality, rarity, conservation interest and perceptual aspects. It goes on to determine that the surrounding Study Area is considered to be of overall low landscape value as there is a lack of rarity, landscape and scenic quality within an ordinary agricultural context.

Interactions between proposed developments and landscape receptors potentially occur in two ways; through direct loss of landscape elements (i.e. subtractive changes which change landscape character) or through additions which change landscape character (additive). Change in landscape character would potentially occur as a result of construction activity and the presence of hydrocarbon extraction machinery and vehicles through to the post restoration phase. Effects on landscape character beyond the Site would be dependent on inter-visibility within the wider Study Area. However, the proposed development utilises an area of existing hardstanding and the proposed development would not entail any significant removal of landscape elements. Changes in visual amenity/views would relate entirely to effects arising from temporary visibility of the drilling/workover rig.

The nature of the landform and the extent of both built form and vegetation limit the availability of views of the Site from within the wider Study Area. Long viewing distances also further obstruct opportunities to view the Site in isolation as it becomes difficult to distinguish in a broad panorama. With the exception of locations within relatively close proximity, land falling within the red line boundary of the Site is generally not well defined within the wider landscape.

The LVA also states that the soil storage bunds and the woodland outside of the Site boundary provide a high degree of screening. Topsoil and sub-soil screening bunds along both the northern and western boundaries of the Site restrict some views into the site and will reduce the apparent scale and mass of the proposed built structures associated with the development. Due to the nature of the Site and the proposed development, no further mitigation of landscape and visual effects beyond that existing in the baseline is proposed. Once production has ceased, the Site would be restored to agricultural use following the short duration of the restoration phase of the development.

The LVA concludes that the effects from the Proposed Development on the landscape character within the study area would be negligible. Effects on adjacent, indirectly impacted Landscape Character Areas is considered to be neutral given the short duration and temporary nature of the drilling/workover rig, which are the only aspects of the Proposed Development, likely to be most visible and influence the landscape character. It goes on to conclude that the drilling/workover rig would be mostly screened by the woodland around Broughton and the B1207. It does acknowledge that in some locations, the rig would protrude over the woodland. However, it concludes that the Proposed Development would only be an indistinct element within most of these views due to the woodland. The short

duration of the rig operations reduces the magnitude of any landscape or visual impact and further mitigation is also offered by the screening provided by the soil bunds along the northern and western boundaries.

Some of the responses received in opposition to the application make reference to the proposed artificial lighting which will be used on site and that this will alter what is essentially a dark area. There will be low-level lighting used during the initial few weeks of production to ensure safety. During normal production operations the site would be manned during the daytime with lighting only required during the winter months or if there is an unforeseen operational requirement or emergency. If a side track drilling operation is undertaken, drilling operations would progress on a 24-hour basis for up to four weeks (drilling operations likely considerably shorter) and as such site and rig lighting would be required during this time. Therefore the use of artificial lighting throughout the night will be a short-term measure only and will not be in use for the majority of the development. Furthermore, it is proposed to use lighting which is selected and designed to avoid unnecessary light spillage. For these reasons it is considered that the potential effects of the temporary external lighting upon the local landscape and in terms of visual impact are not significant.

Taking into account the absence of any significant impacts upon the local landscape and the fact that the acknowledged visual impacts that would arise from specific changes in view, by way of the introduction of a temporary drill rig, as well as the 'glow' from artificial lights, would be temporary and of negligible significance, it is considered that the proposed development would not result in adverse visual impacts or impacts upon the local landscape.

Notwithstanding representations made objecting to the development which are acknowledged and understood to be material concerns, the proposed development as set out in the submitted details is considered to accord with policies M1, DS1, RD2 and LC7 of the NLLP with regard to its effect on landscape and visual impact.

Hydrology/hydrogeology

The relevant extant development plan policies against which to assess the proposed development's effect upon the water environment are 'saved' NLLP policy DS13 which requires all development proposals to take account of the need to secure effective land drainage measures and groundwater protection, and 'saved' NLLP policy DS14 which states that developments will not be permitted if they *"adversely affect the quality and quantity of water resources…unless the impact is mitigated to an acceptable level"*. 'Saved' policy M23 of the NLLP also requires all proposals for oil and gas production to incorporate protection measures adequate to mitigate their impacts.

The assessment of the effects of the proposed development in respect of the water environment, including potential adverse impacts upon both ground and surface waters, is provided within the submitted *"Hydrogeological & Flood Risk Assessment"* document produced by consultants Envireau Water on behalf of the applicants. There have been several previous hydrogeological and flood risk assessments undertaken for the Wressle wellsite previously. This HRA draws together data presented in previous assessments, together with new proprietary data acquired by the applicants (including new cored boreholes drilled in 2018) and integrated with environmental and planning resources to support the hydrogeological conceptual model for the wellsite, and to define the surrounding water environment. The purpose of the hydrogeological risk assessment

(HRA) is to consider the potential risks of the development to the water environment and what mitigation measures may be necessary to reduce risks to an acceptable level.

The application is also supported by a *"Civil and Structural Design Statement"* document which has been prepared by Alan Wood & Partners, a professional engineering and construction management consultancy, detailing the design review and upgrade details associated with the reconfiguration of the wellsite. This document specifically details the upgrading of the wellsite and the embedded mitigation measures in response to the concerns raised by the Inspector at the previous inquiry.

The HRA explains that detailed shallow site investigation work undertaken in February and March 2018 has proven the superficial deposits beneath the wellsite. Made ground and topsoil was encountered to a depth of 0.4m. This was underlain by slightly clayey sand of the Sutton Sand Formation to a depth of 4.5m. Within boreholes in the west of the site, sands interpreted as being the underlying Kellaways Sand Member of the Kellaways formation were encountered under the Sutton Sand Formation. The Jurassic age strata which are taken to mark the base of the shallow geology are underlain by the Penarth and Mercia Mudstone Groups, and the Sherwood Sandstone Group of Triassic age, which are in turn underlain by Permian and Carboniferous age bedrock. The rock formations dip at a shallow inclination to the east.

There are no faults mapped in the immediate vicinity of the wellsite by the British Geological Survey (BGS). Furthermore, the wellsite borehole data and borehole data from the Clapgate boreholes operated by British Steel do not suggest the presence of faults local to the wellsite. Egdon's 3D seismic data shows that the Wressle-1 wellsite does not intersect any major, regional or extensive geological faults.

The geology underlying the wellsite comprises formations which have been grouped into 4 hydrostratigraphic Layers. Layer 1 contains the Aquifers which have a resource value, and extends down to the base of the Lias Group (Scunthorpe Mudstone Formation). Layer 2 comprises a thick sequence of very low hydraulic conductivity materials including mudrocks and evaporites within the Penarth and Mercia Mudstone Groups. Layer 3 comprises the Sherwood Sandstone Group, which contains saline water and Layer 4 comprises Permian and Carboniferous age strata, including the oil reservoir formations and a number of low permeability intervals, and is characterised by saline groundwater. Layer 2 provides a barrier to upward movement of saline formation waters from Layers 3 and 4 into Layer 1, which is demonstrated by the water quality within Layer 1.

The shallow geology is considered to be more important in terms of the presence of a significant groundwater resource than the deeper geology. The most noteworthy Aquifers in terms of water supply are the Unconsolidated Sands Aquifer and the Lincolnshire Limestone Formation. While the Blisworth Limestone Formation is recognised as an aquifer, at the wellsite this formation does not constitute an effective aquifer. Due to its significant thickness, the Lincolnshire Limestone Formation is considered to be the shallowest local Aquifer likely to be exploited for water supplies. This is also the Aquifer that is the primary source of water to the British Steel boreholes at Clapgate.

Core samples recovered from 2 new (2018) boreholes on the wellsite have undergone laboratory testing to quantify the hydraulic conductivity of key claystone sequences within Layer 1. It is stated that the data generated from these tests provides conclusive evidence that demonstrates the existence of a laterally continuous impermeable claystone capping layer above the Primary Aquifer, the Lincolnshire Limestone Formation beneath the wellsite

and more widely. The Cornbrash (Secondary B aquifer) is overlain beneath the wellsite area by the Kellaways Formation (Clay), which forms an impermeable capping layer.

In respect of the deeper geology, the Penarth Group is classed Unproductive strata and the Mercia Mudstone Group Secondary Aquifer will also act as Unproductive strata at this location due to its depth. In the vicinity of the site, the depth of the Mercia Mudstone and resulting overburden pressure will result in low hydraulic conductivities. Together these two groups provide a hydraulic barrier between the shallow groundwater system that has resource value, and water bearing systems in the deeper Triassic, Permian and Carboniferous strata that contain formation water with no resource value. Geothermal investigation in the area shows that the Triassic Sherwood Sandstone at this location contains formation water with a brackish salinity. The Water Bearing Formations in the underlying Permian and Carboniferous bedrock are also likely to contain saline water and act as potential reservoir rocks for the oil and gas. The proposed well operations will only be undertaken within this deep hydrogeological environment, within the Carboniferous strata.

It is asserted that The HRA presents conclusive evidence to demonstrate a laterally continuous impermeable capping layer above the Lincolnshire Limestone Formation and thus comprehensively addresses the Inspector's third reason for refusal as detailed in his decision letter.

Based on a search of the Environment Agency abstraction license database, there are three licensed groundwater abstraction and six licensed surface water abstractions within a 2km radius. The British Steel boreholes are the only licensed groundwater abstraction wells within 1.5km of the wellsite. These boreholes are identified as being installed into the Lincolnshire Limestone, the Principal regional Aquifer, although they may also be connected to the Cornbrash Limestone. It is noted that these boreholes abstract from the Lincolnshire Limestone within layer 1, which is a separate hydrostratigraphic unit, isolated form the oil reservoir located in layer 4 by layers 2 and 3.

There is one registered private water supply borehole serving 9 dwellings at Brigg Road, Wressle and there is potential for further unregistered private water supply boreholes, which have been considered in the HRA. Based on local geology, any unrecorded supplies in the vicinity of the wellsite would be most likely to target Superficial Deposits, or the Lincolnshire Limestone Formation or the Marlstone Rock. In addition, 35 water well record have been identified within 2km of the wellsite. The majority of these records relate to wells targeting the Lincolnshire Limestone Formation or the Marlstone Rock Formation, with a few shallow wells targeting the Kellaways Formation Sand Member. The EA has raised no concern regarding potential impact on abstraction boreholes and, whilst no response has been received to the current application, British Steel has previously confirmed that they consider that there will be no impact on the volume or quality of the water that they abstract.

The Wressle wellsite is shown to be located outside of the Source Protection Zones for all of the identified abstractions. Furthermore, whist the wellsite is located within a Nitrate Vulnerable Zone, the proposed development will not result in additional nitrates.

Ella Beck is the nearest surface water feature to the wellsite and will be the receptor of clean rainfall runoff water discharged off site. Ella Beck lies adjacent to the northern boundary of the site and is classified as a Main River by the EA. Approximately 400m to the north-east of the site Ella Beck joins the West Drain and flows northerly for about 10km

before joining the River Ancholme close to the mouth of the River Humber. There will be no discharge of production or process/treatment fluids from the wellsite.

Following the dismissal of the previous appeals at public inquiry in January 2018, a programme of wellsite reconfiguration is proposed, informed by a new ground investigation report. The production of the ground investigation report addresses one of the reasons for dismissing the appeals and informs the enhanced embedded mitigation proposed as part of the wellsite reconfiguration.

The reconfigured wellsite design incorporates various embedded mitigation features to reduce the potential impact and occurrence of the potential impacts, such as the designed containment systems (primary, secondary and tertiary) and the proven presence of the geological protection from the low hydraulic conductivity formations in Layer 1 and the low conductivity barriers formed by Layer 2.

The reconfiguration will result in the installation of a new high-density polyethylene (HDPE) impermeable membrane and associated protection layers across the entire wellsite, including the containment ditch system. As part of this, the existing wellsite surface aggregate will be stripped and regraded, before being re-laid on top of the new HDPE impermeable membrane system. To confirm the suitability and thickness of the surface aggregate, a representative sample of the current wellsite aggregate and proposed HDPE impermeable membrane system has been subject to independent testing to simulate the ground-bearing pressure of the proposed installation. This involved a cylinder test under laboratory conditions by BICS Laboratories Ltd, an independent UKAS accredited laboratory, using EA Methodology. A load bearing capacity test has been undertaken on the existing substrate (subgrade).

As a result of these tests (both included with the CSDS), the design team at Alan Wood and Partners is satisfied that a 300mm thickness of screened and graded stone platform material provides effective protection to the proposed HDPE impermeable membrane system. The design includes a new internal roadway and tanker loading bay, offering robust construction for heavily trafficked areas. This also avoids the need for wheel washing.

The CSDS confirms that the proposed containment systems will provide the necessary storage volumes for all expected rainfall volumes including climate change allowance. The storage tank bunds have been designed to meet all statutory requirements and construction standards. In addition, the CSDS includes a French drain and full retention interceptor to manage clean surface water run-off into the Ella Beck. A full CQA system will be employed to ensure the competency and integrity of the site reconfiguration works.

The Civil and Structural Design Statement (CSDS) provides a detailed overview of the reconfiguration works as follows:

<u>Working platform</u>

1. Remove existing 300mm of granular material down to original protective geotextile layer above GCL membrane;

2. Process all granular material by screening and removing large cobbles (greater than 125mm);

3. Remove 1 layer of existing protective geotextile (2 layers present);

4. Install a new protective geotextile layer above existing GCL;

5. Install new 2mm HDPE plastic membrane;

6. Install new protective geotextile layer above the HDPE membrane;

7. Re-install nominal 300mm processed granular material to performance compaction requirements;

8. Nominal fall to proposed final surface levels towards existing perimeter ditches/drains to be employed to encourage surface water run-off; and

9. Full Construction Quality Assurance (CQA) regime to be employed throughout in conjunction with all specialist installation requirement s of membrane supplier and principal contractor.

Drainage

1. Remove existing section of piped drainage ditch adjacent and across current entrance;

2. Carry out works 4-8 as above (working platform) to existing open ditches in conjunction with works to platform;

3. Install 300mm perforated (twin wall plastic) drain to all open ditches and install inspection chambers at each ditch junction position;

4. Backfill ditches with a 40mm single size washed aggregate up to the new platform level to form a French drain;

5. Install new drainage run (sealed plastic), Class 1 full retention interceptor, isolation valves and sampling chamber including new headwall structure within Ella Beck;

6. New interceptor to be Kingspan NSFP006, Class 1, fully fitted with oil alarm system to include flashing beacon and audible alarm;

7. Create new ramped bund across existing entrance to provide/accommodate storm water attenuation for 1:100 year rainfall event + 5% for climate change – height/level to be confirmed by FRA specialist; and

8. Full CQA regime to be employed throughout in conjunction with all specialist installation requirements of membrane supplier, interceptor supplier and principal contractor.

New Structures

1. Provide new RC (Reinforced Concrete) bunded storage area to accommodate sufficient storage for 5 Nr 52,000L tanks in accordance with CIRIA guide C763 – Containment Systems for the Prevention of Pollution (area 27.5m x 15m, bund height 450mm = 186 cubic metres storage);

2. Install new RC tanker unloading bay including dedicated sump adjacent to storage bund;

3. Install new RC turning/reversing hammer head for tankers/articulated vehicles;

4. Extend existing RC slab surrounding drilling cellar;

5. Install sundry RC slabs above ground to non-working platform areas; and

6. Full CQA regime to be employed throughout in conjunction with all specialist installation requirements of membrane supplier and principal contractor.

The proposed platform design provides for the upgrading of the existing surface water drainage infrastructure on the site, as detailed above. The new drainage system will be constructed such that it discharges clean rain water run-off via the interceptor to Ella Beck, at a maximum volume of 5l/s.

As a minimum the CQA regime will include the following:

- Seam and weld testing of the liner (pull test using existing liner)

- Air testing of the liner welds, spark test over panel before covering (contractor & independent)

- Liner panel layout plan (showing joint locations, roll number, repairs and pipe penetrations etc.)

- Air testing of drainage (ditch to interceptor and discharge)

- In-situ plate bearing tests (on platform following installation)

- As-built topographical survey (upon completion)

The well operations will be undertaken within an already constructed and tested well that has been designed and constructed in accordance with all regulations, which includes verification by an independent well examiner, and notified to the Health and Safety Executive. Well testing includes pressure testing of the well linings and seals to ensure that they do not leak. The natural geological barriers provide a seal between the oil production zone, where the well operations will be undertaken, and the sensitive receptors in Layer 1. These seals are proven to exist and operate by virtue of the lack of any evidence of hydrocarbon leakage at surface. Well operations will only affect the natural rock strata a short distance from the well casing.

A qualitative Hydrogeological Risk Assessment has been carried out with reference to the source-pathway-receptor approach.

The HRA identifies that the sources of potential pollution during the 4 phases of site activity are:

- Mobilisation of contaminated soils during reconfiguration and removal of existing platform;

- Fuel spilling from plant and machinery;

- Construction of monitoring boreholes creating a pathway to the Unconsolidated Sands Aquifer;

- Migration of fluids into the water bearing formations;

- Leakage/spills of hydrocarbons, fuels, produced water and other fluids stored on the wellsite; and

- Migration of fluids, gases and formation water from the wellbore.

The potential pollutant linkages (pathways) between potentially polluting activities and surface water and groundwater receptors, are:

- Runoff to surface waters;

- Vertical movement through the Unconsolidated Sands Aquifer into underlying groundwater;

- Downwards movement along interface between formation and monitoring boreholes;

- Downwards leakage through the HDPE impermeable membrane;

- Migration from the wellbore into permeable/porous formations; and

- Migration through leaking well casings and along annuli.

The following receptors have been identified:

- Surface water receptors comprising the field drains and becks (streams and rivers), principally Ella Beck, in close proximity to the Wressle-1 wellsite;

- Groundwater receptors close to the wellsite with a resource value including:

    - Shallow, Unconsolidated Sands Aquifer (Secondary A Aquifer); Lincolnshire Limestone, Northampton Sand / Grantham Formations (Principal Aquifer); and

    - Marlstone Rock Formation (Secondary B Aquifer);

    - Licensed abstractions by British Steel targeting the Lincolnshire Limestone and Cornbrash Formations (Clapgate Pumping Station); and

    - Potential un-licenced private water abstraction from any of the Layer 1 hydrogeological units; and

- Deeper water bearing formations beneath the Lias Group with limited or no resource value. Other than for the deep well operations (Phase 2), and wellbore hazards in Phases 3 and 4, these deeper water bearing formations are not considered to have a S-P-R linkage from the surface activities, as a result of the separation between the deep geology and Layer 1, by virtue of the Layer 2 barrier. Similarly, during the deep well operations, there is no S-P-R linkage back to Layer 1.

Volumes of neutralised (“spent”) acid mix returned from the acidisation will total 50m3 (2 tanker loads). The fluids returned to surface from the proppant squeeze will be approximately 150m3 which equates to 5-6 tanker loads in total. Both waste fluids will be transferred off site to a licenced waste treatment or disposal facility. All fluids will be sampled and analysed to determine the appropriate receiving facility.

The Risk Analysis results in a ‘Low’ to ‘Very Low’ risk attributed to surface waters and shallow groundwaters from the Proposed Development due to the implemented mitigation measures. As would be expected, the highest risk (‘Low’) is associated with site reconfiguration and restoration activities when the HDPE impermeable membrane is being installed or removed. It should be noted that the Risk Analysis is conservative in this regard as it does not take into account the mitigation provided by the existing GCL, during the short duration of these works.

The risks arising from deeper sub-surface activities (well operations) are assessed as ‘None’, due to the low hydraulic conductivity that exists in the Penarth and Mercia Mudstone Groups (Layer 2) and the fact that the deep water bearing formations have no resource value.

The HRA confirms that, to demonstrate the effectiveness of the embedded mitigation measures, an appropriate scheme of monitoring is required. A scheme of monitoring has been developed for the wellsite taking into account the hydrogeological setting and the risk profile of the development. The base scheme of monitoring has been agreed with the EA as part of the environmental permitting process.

The base scheme comprises 3 shallow boreholes constructed to monitor the shallow groundwater system in the Unconsolidated Sands Aquifer below the wellsite. A single, deeper borehole has also been constructed to monitor the Lincolnshire Limestone Formation. However, following construction of the boreholes and based on more detailed geological information, it has become clear that the 3 shallow boreholes did not fully penetrate the Unconsolidated Sands Aquifer. It is, therefore proposed to deepen these boreholes so that they are drilled 0.5m into the underlying Kellaways Formation (clay).

To extend the scheme further it is proposed to install an additional shallow borehole on the northern side of the wellsite, to ensure that any potential pollution moving north towards Ella Beck is picked up. This new borehole will likewise be drilled 0.5m into the underlying Kellaways Formation so that any heavier hydrocarbons within the Unconsolidated Sands Aquifer would be detected. The existing deep monitoring borehole, which targets the Lincolnshire Limestone Aquifer will remain as is.

In addition to the groundwater monitoring boreholes, Ella Beck has been included in the scheme of monitoring. This monitoring will take place at 3 locations on the Beck; upstream of the wellsite; at the midpoint of the wellsite; and downstream of the wellsite and the new outfall from the interceptor.

The scheme of monitoring for both ground and surface water requires water samples to be collected for laboratory analysis. The analysis will be carried out for a wide range of chemicals that are defined in the environmental permit. The environmental permit requires monitoring 3 months prior to any well operations being undertaken. This will be undertaken once per month, with the frequency of monitoring increasing to weekly during well operations and returning to monthly once well operations are concluded.

It is concluded that the scheme of groundwater and surface water monitoring will demonstrate the effectiveness of the proposed mitigation measures and will provide a robust water quality baseline against which any changes in chemical and physical attributes can be measured prior to and during production.

With regard to flood risk to the site, a Flood Risk Assessment (FRA) is incorporated within the HRA. The FRA identifies that:

- The wellsite is wholly located within the EA Flood Zone 1 (Very Low probability of flooding from tidal and fluvial sources).

- The Proposed Development is classified as 'Less Vulnerable' development, which is identified within the NPPG as an acceptable development type in Flood Zone 1.

- The risk of surface water flooding at the wellsite is considered Very Low. Surface runoff will be managed in accordance with the proposed drainage scheme.

- The overall existing risk of flooding from groundwater, public sewers, artificial waterbodies and roads to the wellsite is considered to carry 'No Risk' to 'Very Low Risk'.

- The risk of flooding from site operations is mitigated by the controlled discharge rate at 5 L/s and the containment available on the wellsite.

The FRA concludes that the Site carries 'No Risk' to 'Very Low Risk' from all sources of flooding and will not increase the risk of flooding off site.

In addition to the above, Paragraph 100 of the Minerals section of the NPPG sets out the key regulators with regard to hydrocarbon extraction. The Environment Agency is identified as the key regulator with regard to the protection of water resources (including groundwater aquifers). Further advice is set out in paragraph 112 which states that "*there exist a number of issues which are covered by other regulatory regimes and mineral planning authorities should assume that these regimes will operate effectively. Whilst these issues may be put before mineral planning authorities, they should not need to carry out their own assessment as they can rely on the assessment of other regulatory bodies".* It should be noted that the Environment Agency recently approved an Environmental Permit for the proposed development and that this permit imposes controls with regard to the protection of water resources. As part of the Environmental Permitting regime, all fluids used for production activities (including proppant squeeze) have to be assessed by the Environment Agency for suitability and use.

The Environment Agency has been consulted on this application and has reviewed the evidence submitted in support of the proposed development, including the *Hydrogeological Risk Assessment.* The Environment Agency has raised no objection to the application with regard to the potential impact on water resources confirming that "*The site has a current Environmental Permit for the proposed operations. The revised scheme set out in the application documents will only enhance the environmental protection measures already agreed for the site*." Responses have also been received from the council's Drainage and Environmental Health officers, raising no objections to the proposed development subject to conditions.

In addition to the aforementioned statutory consultee's, the LPA has employed the services of JBA Consulting to undertake a review of the technical documents submitted as part of the planning application. JBA are professional consultants that represented North Lincolnshire Council at the recent public inquiry in respect of the previous planning applications for hydrocarbon production at the Wressle wellsite and as such are familiar with the site and the proposed development. The review of the technical documents has

been undertaken in light of the findings of the public inquiry, which concerned risks associated with potential water pollution at the site.

JBA have confirmed that overall the new documents submitted with this application provide considerable additional information in terms of:

1. New ground investigation data, including some geotechnical data;

2. Additional mitigation measures;

3. Assessment of the conditions on site; and

4. Additional design regarding the site bearing capacity.

JBA identify the main groups of issues that the planning inquiry identified as hydrological conceptualisation; containment design; and monitoring requirements.

In respect of hydrological conceptualisation the inspector's decision raised a series of issues related to the interpretation of the hydrogeological setting and the hydrogeological risk assessment. JBA's review identifies several limitations to the new hydrological risk assessment, such as the conceptual model produced within this document. However, these limitations are not considered to be sufficient to change the overall conclusions of the hydrogeological risk assessment and as such the new documentation is considered to address the concerns raised by the inspector.

With regards to containment design the inspector's decision raised a number of issues related to how the site containment had been designed, constructed and its current state. JBA's review confirms that the new application deals with the containment design through a new design based upon geotechnical data and which will be verified through CQA. It is concluded that this new reconfigured design addresses the concerns raised at the inquiry. JBA further recommend that the CQA process is formalised as a planning condition to ensure that the site is built as proposed.

Finally, in respect of monitoring requirements, the inspector's decision identified issues with the construction and location of monitoring boreholes. JBA have confirmed that the issues regarding monitoring appear to be addressed by new monitoring boreholes to replace the existing ones and an additional borehole to cover a gap in the monitoring coverage. Again, it is recommended that the proposed improvements to the monitoring are secured by condition.

Overall JBA conclude that in comparison with the previous applications, in the new documentation the main weaknesses identified by the Inspector appear to be have addressed, or can be addressed in planning conditions. They go on to conclude that it is very important that the proposed measures for the site are enforced via planning conditions. Suggested conditions are proposed as part of the review.

Having considered the review produced by JBA the applicants have provide further comments as follows:

- The applicant's disagree with the criticism of the conceptual model provided within their HRA. They state that *"A conceptual model is, by definition, a simplification of a complex system… The detailed and complex geological description is simplified and summarised in the Hydrogeological Conceptual Model to show that the hydrogeological*

setting below the site and the connections to the closest abstractor comprise layers of permeable and poorly permeable materials."

- The applicants clarify that "*the civil and structural design of the proposed reconfiguration works provides for no reliance on the GCL impermeable membrane. This is intentional and serves to remove any ambiguity about the suitability of the existing GCL impermeable membrane, which was the subject of extensive debate during the Planning Inquiry. The intention is to install a new HDPE impermeable membrane, providing new tertiary containment which will be installed in accordance with the CQA plan."* This is in response to the suggestion by JBA that the existing GCL should be inspected and repaired (if required) during site re-engineering.

- The applicants raise issue with the negative wording of a statement within JBA's review in respect of the level of aggregate cover and do not agree that a condition restricting trafficking to the reinforced concrete areas only is necessary. They state that *"It is proposed that where repeated and frequent HGV movements occur across certain areas of the site (associated with longer term production of hydrocarbons), the surface of these areas will be constructed using reinforced concrete. Areas outside of the reinforced concrete will be subjected to infrequent and sporadic HGV movements and has been designed to ensure that there will be no adverse impact on the HDPE impermeable membrane. For example, a more substantial protective geotextile is proposed above the HDPE impermeable membrane, a Naue Secutex R801. This latter protective layer has not been referenced by JBA."*

- The applicants note that JBA state on page 16 of 22 that *"If the Cornbrash Formation is contaminated the contamination is highly likely / certain to end up in the British Steel boreholes …".* It is stated that this statement is not placed in any risk context and comes across as alarmist. The applicants go on to explain that "*The HFRA describes in detail the geology below the site and discusses that on the extreme western side that the Cornbrash Formation may be in contact with the overlying Unconsolidated Sands Aquifer. This creates a situation, when the site is being re-constructed, where there is an increase in risk to the Cornbrash Formation from spillage from plant and machinery during the work. This situation only exists for the very short time (a few days) while the existing platform is being stripped and the new Tertiary impermeable barrier is being installed. The hazard is the same as that associated with any building work where soil is stripped and the risk is much less because in this case the work is of a very short duration."* In this regard it is concluded that "*The overall risk assessment to the British Steel boreholes is appropriate in this context and has been accepted by British Steel, the Environment Agency and JBA in their conclusions."*

- In response to JBA's recommendations in respect of conditions the applicants have presented draft conditions to the LPA which they consider address the issues raised by JBA where appropriate and have challenged the need for conditions in respect of site containment and site access (points 6 & 7 raised by JBA under the heading of *Planning Conditions).*

The comments raised by the applicants are acknowledged in response to the issues raised in JBA's review. It is noted that JBA confirm that none of the issues raised in their review of the submitted documentation would be sufficient to alter the conclusions of the hydrogeological risk assessment. They confirm that the additional information addresses the concerns raised at the public inquiry and as such overcome the reasons given by the

Inspector for dismissing the appeals. Overall JBA consider that the new application is acceptable subject to robust conditions to secure the proposed mitigation.

Having reviewed the submissions of the expert consultants appointed in support of the application, the responses received objecting to the application and taking into account the consultation responses from the Environment Agency, the council's own internal departments and specialist external consultants (JBA), it is considered that the risks of an adverse impact upon groundwater is very low and that there would be appropriate measures in place to ensure the protection of ground and surface water and nearby watercourses.

Notwithstanding representations made objecting to the development which are acknowledged and understood as being material concerns, the proposed development, appropriately mitigated as proposed by the applicant in their submitted details, and weighed in the planning balance, is considered to accord with the requirements of policies DS13, DS14 and M23 of the North Lincolnshire Local Plan with regard to the protection of the water environment.

Ecology

The relevant extant development plan policies against which to assess the proposed development's effect upon the natural environment, including protected species, are 'saved' policy LC4 of the NLLP, which seeks to protect areas of local nature conservation importance; 'saved' policy LC5 of the NLLP, which requires development proposals to have no adverse impact on protected species; 'saved' policy M23 of the NLLP, which requires environmental protection measures adequate to mitigate the impacts of oil and gas production sites; 'saved' policy DS1 of the NLLP, which requires developments to have no adverse effect on features of acknowledged importance, including species of nature conservation importance; and policy CS17 of the Core Strategy for North Lincolnshire, which seeks to retain, protect and enhance features of biological interest and secure biodiversity gains from developments.

The assessment of the effects of the proposed development in respect of the natural environment, protected species and designated habitats, is set out within the submitted *Updated Ecological Appraisal Report* prepared by consultants AECOM on behalf of the applicant. This report follows on from the original ecological appraisals submitted by the applicant in support of the previous applications for both exploratory drilling and long-term hydrocarbon production on site and includes an updated desk study, updated phase 1 habitat survey (15 May 2018), updated ecological appraisal, a consideration of any additional ecological mitigation/compensation requirements and updated restoration requirements.

Species assessed as part of this appraisal include bats, breeding birds, barn owls, kingfishers, woodlark, badgers, reptiles, great crested newt, water vole, otter and brown hare. It is explained that the baseline habitat and species conditions associated with the site remain broadly as previously described and assessed and therefore this ecological assessment report is largely identical to that submitted with the 2016 and 2017 applications for hydrocarbon production at the Wressle well site. In addition, any potential changes in air quality arising from flaring of gas at the site and use of gas engines have been assessed, following the completion of a revised air quality impact assessment for the proposed development by AECOM.

The assessment identifies that possible effects could arise from the proposed development as a result of dust, odour or other emissions affecting air quality, noise and visual impacts and possible adverse impacts on surface and/or groundwater through accidental spills, leaks or loss of well integrity. Because the wellpad from which oil and gas is proposed to be produced already exists, the potential for any additional pathways for impacts on protected or notable habitats and species is considered to be negligible. This is because the application does not include the drilling of a different well (the proposed side track drilling will use the existing well). The main change identified in potential source-receptor pathways is the installation of an outfall to Ella Beck to discharge clean surface-water run-off; the current drainage arrangement stores surface water run-off on site prior to removal via tanker. Any potential for significant adverse effects upon protected species and/or designated habitats by virtue of dust deposition, possible sources of contamination of surface or ground water, process contributions to air quality parameters, noise emissions (including traffic movements) and the emission of artificial light from the site is predicted to be negligible. The residual effects assessment concludes that *"no residual adverse effects on ecology are predicted during the development"*.

The only change in the assessment is with respect to water vole, for which additional pre-works checks are considered necessary to address the low residual risk that this species would be affected by the installation of the drainage outfall into Ella Beck. If water voles are confirmed as present, a precautionary working method statement, or Natural England licence may be required to ensure legislative compliance with the Wildlife and Countryside Act 1981 (as amended). It is proposed that a planning condition can be applied to enforce this requirement. No other mitigation measures specific to habitats or protected species are considered necessary, as no significant effects on ecological receptors have been identified. A Biodiversity Management Plan similar to the one agreed for the site at the exploratory stage is suggested by the applicant in order to secure biodiversity enhancement in line with policy CS17 of the Core Strategy.

With regard to mitigation, the ecological appraisal identifies that well integrity is managed mainly by the Health and Safety Executive (HSE), through review of the well design and construction, and then through the Environment Agency via a submission under the Water Resources Act 1991 Section 199. These processes ensure best practice in terms of well integrity and protection of aquifers through the drilling of a borehole. During borehole drilling, cement bond logging and Formation Integrity Testing provide documented evidence that the borehole is constructed and sealed appropriately. Monitoring of groundwater through the installation of groundwater monitoring boreholes has been previously applied and will again be a requirement under the issued environmental permit, regulated by the Environment Agency.

The document also identifies that there is embedded mitigation in the drainage design, which includes an inspection chamber for water quality inspections and valves to control flow rate, the requirements for which will be controlled by the granted Environmental Permit. A Noise Management Plan will be prepared and agreed to ensure noise is minimised during works. The selection and design (i.e. downward and directional) of external artificial lighting will minimise obtrusive light spillage. Light impact has been assessed through a separate Light Impact Assessment (Strenger, 2018) and concludes that the proposed development will be compliant with the Institute of Lighting Professional's Guidance Notes for the Reduction of Obtrusive Light (2011).

Consultations have been received from Natural England and the council's own ecologist following assessment of the submitted information. No objections have been raised with

regard to the proposal's impact on protected or priority species or habitats. The council's ecologist does, however, recommend conditions to secure biodiversity enhancements in accordance with policy CS17 of the Core Strategy.

Having reviewed the submissions of the expert consultants appointed in support of the application, the responses received in objection to the application and taking into account the consultation responses from the Natural England and the council's own internal ecologist it is considered that the proposed development is unlikely to have any adverse impact on protected or notable species or habitats and that mitigation of the effects of the development with regard to the natural environment, including the proposed biodiversity enhancements, are both appropriate and proportionate. Notwithstanding representations received in opposition to the proposed development, which are acknowledged and understood to be material concerns, the proposed development, appropriately mitigated as put forward by the applicant within the submitted details is considered to accord with policies DS1, LC4, LC5 and M23 of the NLLP and policy CS17 of the Core Strategy.

Heritage

The most relevant extant development plan policies against which to assess the proposed development's effect upon heritage assets are 'saved' policy M4 of the NLLP, which restricts minerals proposals that affect Scheduled Ancient Monuments unless the reasons for development clearly outweigh the archaeological value of the site; and 'saved' policy DS1, which requires adequate measures to ensure no unacceptable impacts on archaeological remains in all new development.

The assessment of the effects of the proposed development in respect of the historic environment are set out in the submitted *"Heritage Impact Assessment: Proposed Hydrocarbon Production at Lodge Farm, Wressle, Broughton, North Lincolnshire"* prepared by Paul Cope-Faulkner on behalf of the applicant.

The assessment undertaken at the site in April and May 2014 did not identify any archaeological remains at the wellsite. Although there is a Bronze Age barrow cemetery approximately 30m to the south-west of the Site and a cropmark complex of buildings, from a post-medieval farm immediately to the north of the Site, there are no above ground remains. Consequently, the setting of archaeological remains is considered to be minor.

The report also includes a heritage impact assessment of the potential effects of the proposed development on the nearby Thornholme Priory Scheduled Ancient Monument. The assessment indicates that there may be a visual and setting impact on the Scheduled Monument, due largely to the height of the proposed drilling rig. The views from the Priory towards the south are already impacted upon by electricity pylons. However, views are not constant and woodland belts mask or partially hide these existing vertical elements. It is concluded that the setting of the priory will be slightly impaired by the proposed development; however, any perceived impact will be of temporary duration lasting approximately 3-4 weeks (duration of siting of drill rig on site for side-track drilling operation) after which the site will have no significant impact on the heritage asset.

The council's Historic Environment Record (HER) has considered the content and findings of the submitted Heritage Impact Assessment and considers that this report provides sufficient information with which to assess the impact on Thornholme Priory and its setting. The council's HER conclude that the proposed drilling rig will be visible in a number of views from within the monument, but concur with the findings of the report, that *"any visual*

impact on the monument setting would be of slight/moderate scale and for a short, temporary period only". The HER are satisfied that any harm to the designated heritage asset will be less than substantial (NPPF para 196) and as such raise no objection to the application. Furthermore, mitigation is not considered necessary in this instance and no archaeological conditions are recommended.

Having given due regard to the expert information submitted in support of the application and the consultation response from the council's HER, it is considered that the risks of an adverse impact being caused to heritage asset's historic importance or heritage value, arising from the proposed development is very low. Notwithstanding the representations received in opposition to the application, it is considered that the proposal accords with policies M4 and DS1 with regard to its impact on heritage assets.

Air quality

The most relevant extant development plan policies against which to assess the proposed development's effect upon air quality are 'saved' policy DS1 of the NLLP, which requires that development proposals do not result in pollution of air, water or land; 'saved' policy DS11 of the NLLP, which seeks to prevent development that would result in dangerous levels of polluting emissions; and 'saved' policy M23 of the NLLP, which requires environmental protection measures to adequately mitigate impacts of oil and gas production.

The assessment of the effects of the proposed development in respect of air quality are set out in the *"Air Quality Dispersion Modelling Assessment"* document prepared by AECOM on behalf of the applicants. The assessment considers particulate matter emissions in relation to the site reconfiguration works, and restoration works at the end of the life of the site, that could impact upon the amenity and health of nearby human receptors and the health of ecologically sensitive habitats. The assessment considers operational emissions due to the installation of a gas engine generator and a permanent flare that will burn excess gas, which is the proportion of gas generated from the operational processes at the site, but not used by the onsite gas-fired generator.

The rate of excess gas sent to the flare will depend on the amount of gas generated during the operational works and the capacity of the onsite gas-fired generator. The aim will be to send as much of the gas as possible to the onsite generator, to first power the site and then to provide power to the National Grid, with only excess gas being sent to the flare.

For production operations AECOM considered four scenarios, associated with production and use of gas. These scenarios considered different potential gas engine loads and associated flaring of any excess gas. The scenarios comprised:

- Scenario 1 – Gas engine operating at full load and flare is flaring at a rate of 60m3/hr of excess gas sent to the flare. This is the most expected scenario;

- Scenario 2 – An alternative likely scenario, with the gas engine operating at 75% loading and flare flaring at rate of 300m3/hr of excess gas sent to the flare;

- Scenario 3 – An emergency case scenario where the gas engine is not in operation but the flare flaring at a maximum theoretical flow of gas sent to the flare; and

- Scenario 4 – A worst case scenario where the highest emissions from the gas engine and from the flare are concurrently taking place, which is unlikely.

The emissions calculations have been based on maximum theoretical flow rates for the design capacity of the proposed flare unit. This is use the figure of 600m3/ per hour which is the threshold limit in respect of the Environmental Permit. However, this gas flow rate is the highest possible forecast and is highly unlikely to be met in reality during production operations.

The report explains that the reconfiguration and operation of the Wressle Well site will generate additional vehicle movements on the local road network. Project-related vehicles will access the site via the B1208 Brigg Road, the A18 and the M180. Additional vehicle movements will be generated throughout all of the operational phases, from site reconfiguration, well operations, production and decommissioning/restoration. The number of additional vehicle movements is below the criteria described in relevant guidance (Environmental Protection UK (EPUK), 20102 and EPUK & IAQM, 20173) to suggest whether there is a risk of a significant effect occurring and there is no need to undertake a detailed assessment of such emissions.

NLC has declared two Air Quality Management Areas (AQMA), the nearest of which is within 2 km of the Wressle Well site flare. However, both AQMAs have been declared as a result of exceedance of air quality objective values for PM10. As the proposed Wressle Well site flare will burn waste gas, no particulate emissions are likely to occur.

The Air Quality Assessment also predicted the long and short-term impacts on pollutant concentrations at the nearby residential properties and ecological receptors. The Air Quality Assessment concluded that the operation of the proposed gas engine and flare will not have a significant impact or effect on local air quality.

The report goes on to explain that a number of mitigation measures can be adopted to reduce the production and/or dispersal of dust to lessen the potential for harm to amenity and limit the human health impacts and that, ideally dust should be controlled at the source as once airborne it is difficult to suppress. It also identifies that construction dust usually responds well to appropriate measures as long as a co-ordinated construction environmental management plan (or equivalent) is implemented and the measures are enforced and adhered to. The Institute of Air Quality Management considers that where suitable construction dust mitigation controls are implemented it will ensure that potential significant adverse effect will not occur and there should be no significant residual effects. A list of the appropriate dust control measures applicable to the construction phase of the proposed development has been suggested and are listed in Appendix C of the assessment document. No additional mitigation measures are considered necessary to reduce the impact of operational gas engine and flare emissions, beyond those incorporated into the design of site. Such incorporated mitigation measures include the location of the stack and the height of emissions release.

The council's Environmental Health department has been consulted on the application and has confirmed that environmental effects of the long term production operations will be managed under the Environmental Permitting system and that the Environment Agency is responsible for regulating emissions from the site; this is further clarified by paragraph 110 of the Minerals sections of the NPPG which identifies the Environment Agency as the key regulator for emissions to the air.

Notwithstanding this the Environmental Health officer has considered the submitted Air Quality Assessment and has confirmed agreement with the conclusions of the report. In particular, they agree that the air quality impacts associated with the construction phase can be adequately controlled via mitigation measures as set out in Appendix C of the assessment and they recommend a condition in this regard.

The Environment Agency has raised no objection to the proposed development with regard to its impact on air quality, nor has it requested additional information in this regard. As part of the Environmental Permitting regime, the applicant will be required to undertake regular monitoring and reporting of air quality on site. The Environmental Permit also controls odorous emissions from the site. The gas flare on site is limited to a maximum gas feed rate of 10 tonnes per day, in accordance with DECC restrictions, and the Permit secures control measures to ensure that this rate is not exceeded.

Having given due regard to the expert information submitted in support of the application and the consultation responses from experts within the Environment Agency and the council's Environmental Health department, it is considered that the risks of an adverse impact upon air quality, either in respect of local residents or sensitive habitats, is very low and that there would be appropriate measures to ensure the protection of air quality. Suggested conditions have been offered where the consultee is of the opinion that controls are necessary (in relation to dust). Notwithstanding the responses received in opposition to the application with regard to air quality, which are acknowledged and understood to be material concerns, the proposed development, appropriately mitigated, is considered to accord with policies DS1, DS11 and M23 of the NLLP with regard to air quality.

Noise

The most relevant extant development plan policies against which to assess the proposed development's effect upon noise are 'saved' policy M1 which requires acceptable proposals to mitigate amenity impacts of mineral extraction proposals; 'saved' policy M3 which seeks to prevent mineral working directly adjacent to housing sites or other land uses where unacceptable impacts may arise; 'saved' policy M23, which requires adequate environmental protection measures to mitigate the impact of oil and gas sites; 'saved' policy RD2, which seeks to prevent development in the open countryside that would be detrimental to residential amenity; 'saved' policy DS1, which requires that new developments do not result in unacceptable loss of amenity to neighbouring land uses; and 'saved' policy DS11, which requires that developments do not create environmental conditions likely to affect nearby developments and adjacent areas.

The assessment of the effects of the proposed development in respect of noise is set out in the *"Assessment of Environmental Noise Emissions"* document prepared by consultants ACIA Engineering Acoustics on behalf of the applicant. This report presents an assessment of the effects on ambient noise levels in the locality likely to result from the construction and operation of oil and gas production facilities, and from other potential activities related to the production of oil and gas. The Report includes details of the noise survey undertaken on 15 May 2018, which measured night time background sound levels.

It is concluded that site reconfiguration works will not give rise to noise levels that would affect the nearest receptors, and will be controlled by a proposed planning condition limiting operations to the approved working hours which are proposed as 07:00-19:00 Mondays to Saturday inclusive.

In respect of operational noise, studies of environmental noise levels in the vicinity of the site show that a noise limit at the previously applied level (during the exploratory drilling phase) of 42dB $LA_{eq,\ 5min}$ is appropriate and should be controlled via a planning condition for the side-track drilling operation. If proppant squeeze is applied, then mitigation measures may need to be considered appropriate to the equipment used. However, it is unlikely that these measures will be needed as the operation will be conducted and completed within two days and confined to operational working hours which are proposed as 07:00 – 19:00hrs Monday to Saturday inclusive. The acidisation operation is considered to have no impact on environmental noise.

The report also proposes noise limits and operational hours restrictions for construction operations in line with those imposed on the previous permission for the drilling of the exploratory borehole. Furthermore, it is concluded that noise from the production phase will be inaudible at any noise-sensitive property. Planning conditions for the production phase will be set according to the typical minimum background sound levels determined by a survey conducted in accordance with BS.4142:2014.

Furthermore, previous monitoring undertaken during drilling in 2014 (the phase with the highest potential for adverse noise impacts) and production testing in 2015 demonstrated that noise limits were not breached and there were no adverse night-time impacts at the closes residential dwellings.

In conclusion, the applicants are of the opinion that any potential effects from noise can be controlled through the use of previously proposed planning conditions as confirmed by the Inspector in his Decision Letter. Noise monitoring applied previously has demonstrated that there was no noise impact from operations at the wellsite.

The council's Environmental Health officer has reviewed the submitted noise impact assessment and has recommended conditions to mitigate the noise impact of the development to acceptable levels; these conditions include specific limits on the noise that can be emitted by operations on the site and are in line with noise conditions that were imposed on the previously consented exploratory drilling operation and those suggested in the noise impact assessment. It should be noted that the applicant was able to comply with these previously imposed noise conditions and that the exploratory borehole was drilled without objections being received by the local authority from neighbouring residential properties. On this basis it is considered that the applicant would be able to comply with the proposed conditions and that they would not place an unacceptable burden on their operations. The Environmental Health officer also advises that noise emissions will be regulated by the Environment Agency under the Environmental Permitting system. The Environment Agency has raised no objection to the application with regard to potential noise impacts.

Having due regard to the submission of expert consultants appointed in support of the application and the responses of the council's Environmental Health officer it is considered that the mitigation, via the use of planning conditions, of the effects of the development with regard to the adverse effects of noise are appropriate and proportionate and will adequately protect the amenity of neighbouring residential properties. Notwithstanding the representations received in opposition to the application, it is considered that, subject to the recommended conditions, the proposed development accords with policies M1, M3, M23, DS1, DS11 and RD2 of the NLLP with regard to protecting the amenity of surrounding land uses.

Highways

The most relevant extant development plan policies against which to assess the proposed development's effect upon highway safety are 'saved' policy M1 of the NLLP, which requires that the local road network and other transport facilities are adequate for proposed mineral workings; 'saved' policy M7 of the NLLP, which requires new mineral workings to be located where the council is satisfied that the level of traffic movements can be accommodated on the local road network; 'saved' policy RD2 of the NLLP, which requires that new development in the open countryside is not detrimental to highway safety; 'saved' policy T1, which requires developments that generate significant vehicle movements to be located in urban areas or where there is good access to transport networks; and 'saved' policy T2 of the NLLP, which requires all new developments to be served by a satisfactory access.

The assessment of the effects of the proposed development in respect of traffic and transport is set out in the *"Transport Assessment"* document prepared by Local Transport Projects Limited on behalf of the applicants.

This document confirms that vehicular access to/from the development site is to be from the B1208 utilising an existing farm access which currently serves Lodge Farm. A temporary parking area of 0.12 ha is proposed for short-term use and security facilities. Parking is to be provided for cars and LGVs (light goods vehicles) for each activity. 18 car parking spaces are to be provided on site during the drilling activity when demand for parking will be at its highest, with a reduction to 12 spaces during the proppant squeeze activity and 10 spaces during the production activity as demand for parking provision falls. The highway network within the vicinity of the site measures in excess of 5.5m, which is sufficient to accommodate the passing of two HGVs.

The report considers the highway network in the area to be good, with the M180 located 4 km to the south of the site and having a junction (4) with the A18 immediately south of Broughton. Northbound HGV traffic is barred from using the B1207 through Broughton, so HGV traffic for areas north of Broughton is routed eastwards along the A18 to the minor junction with the B1208. HGV traffic then travels along the B1208 north through Castlethorpe and Wressle up to the road junction of the B1208 with the B1207, it can then continue northward along the B1207. The B1208 is signposted as a designated lorry route for Winterton and South Ferriby. The B1208 has a dog-leg just north of Castlethorpe with two 90 degree bends; this has the effect of calming the traffic, although the rest of the route is mainly open with good visibility.

It is further considered that the classified roads (major roads intended to provide large-scale transport links within or between areas) are adequate in terms of road capacity to accommodate the limited number of additional vehicle movements that the development is projected to generate during the construction and operational activities.

A total of 10 collisions, resulting in 18 casualties, have occurred within the study area (B1208 between the B1207 and A18) during the extended five year study period (01/01/2012 to 30/09/2017). Analysis of the study collisions has not revealed any identifiable existing collision issues associated with the expected movements of the proposed development, Therefore it is considered that there are no existing road safety issues pertinent to the development of the site.

The main traffic impacts associated with the proposed operation are the temporary movements associated with stages 1-4 of the Proposed Development. Once the wellsite is in production, the number of vehicle trips generated by the operation is expected to be very small. A maximum of 20 temporary two-way daily HGV trips are expected, which would occur during acidisation and the final activity (removal of equipment, well decommissioning and site restoration). A maximum of 44 temporary daily two-way personnel (car/LGV) trips are expected to be generated, which would occur during the drilling (operation) activity.

It is expected that the production activity would generate a maximum of 32 average daily two-way trips (8 personnel trips, 6 production HGV trips and 18 grid connection HGV trips), reducing to a maximum of 14 average daily two-way trips following completion of the grid connection activity. As the grid connection activity would only last for two weeks the associated increase in two-way trips occurring would be for a short period only.

Deliveries are expected to be timed to maximise site efficiency and as such it is expected that deliveries will take place throughout the working day, rather than being condensed into peak periods. Where possible, deliveries will be timed to avoid the morning and afternoon road network peak periods and other predictable peak periods.

The report concludes that the traffic generation of the proposed development is expected to have at worst a moderate traffic impact on the local highway network, although this would only be for 1 day during the acidisation-demobilisation stage and over a short timeframe during parts of the equipment removal/decommissioning/restoration activity, with most activities expected to have a low or negligible impact on the local highway network.

It is considered that the projected trip generation associated with the facility does not represent a significant amount of movement, with a maximum of 54 daily temporary two-way trips generated by the site and a maximum of 32 daily two-way trips generated once the site is operational, reducing to a maximum of 14 average daily two-way trips following completion of the grid connection activity. Given that the development is projected to generate a significantly lower number of trips than the DfT threshold for assessment of 30 two-way peak hour vehicle trips, the development should have a negligible impact on the operation of the local highway network. Therefore, as the impact of the proposals is not expected to be severe, the proposals are considered to be in accordance with the NPPF, which states that *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network are severe"* (para. 109).

It is concluded that vehicle trips expected to be generated by the proposed development suggest that the development when compared against the existing average daily traffic flows should generally have a negligible to low impact on the local highway network, with only a moderate traffic impact during a short timeframe for specific activities.

The council's Highways department has considered the submitted Transport Statement and agrees with its conclusions. The highways officer recommends conditions to secure the management of traffic in accordance with the details set out in the TS and to secure suitable inspections and mitigation works in accordance with the proposed methodology.

Having given due regard to the submission of the expert consultants appointed in support of the application, the representations received in opposition to the application and the response from the council's expert Highways officer, it is considered that the impacts of the

vehicle movements associated with the proposed development are limited in their duration and extent and thereby, taking account of the proposed mitigation of those effects (e.g. timings of HGV movements etc.) to safeguard the amenity of local residents, the proposals are considered acceptable insofar as their effects on traffic and highway safety. Notwithstanding the representations received in opposition to the application, which are acknowledged and understood to be material concerns, it is considered that the proposal accords with policies M1, M7, RD2, T1 and T2 of the NLLP with regard to its impact on the local highway network.

Lighting

The impact of the proposed development with regard to artificial lighting has been considered above in relation to the impact on visual amenity. However the introduction of artificial lighting on site also has the potential to impact upon the amenity of neighbouring residential properties as a result of light spillage and glare. The most relevant development plan policies against which to assess the proposed development's effect with regard to artificial lighting are 'saved' policy M1 of the NLLP, which requires that visual and amenity impacts are mitigated; 'saved' policy M23 of the NLLP, which requires adequate environmental protection measures to mitigate impacts of oil and gas proposals; 'saved' policy RD2 of the NLLP, which requires that new developments in the open countryside are not detrimental to residential amenity; 'saved' policy DS1 of the NLLP, which requires no unacceptable loss of amenity to neighbouring land uses from all new developments; and 'saved' policy DS11 of the NLLP, which requires that new developments do not create environmental conditions likely to affect nearby developments and adjacent areas.

The assessment of the effects of the proposed development in respect of lighting is set out in the *"Lighting Assessment"* document prepared by Strenger on behalf of the applicants. This Report comprises:

- A review of the Application Site and surrounding area;
- A baseline light survey of the surrounding area;
- Detailed 3D modelling of both a pre- and post-mitigation scheme of lighting;
- Calculation of light trespass and glare at residential receptors; and
- Calculation of sky-glow for the lighting installation.

As there are various work phases associated with the Proposed Development (all with differing artificial lighting requirements) this assessment is based on the Sidetrack Drilling Phase only; such as to represent a reasonable worst-case scenario as drilling operations are undertaken on a 24-hour basis and could take up to two weeks.

The Assessment concludes that the Proposed Development will be compliant with the Institute of Lighting Professionals (2011) Guidance Notes for the Reduction of Obtrusive Light for residential receptors, subject to specific mitigation measures applied to the rig lighting. Levels of Obtrusive Lighting would also be in accordance with the criteria set out in ILP Environmental Zone E2 by implementing the following mitigation measures, thereby not affecting the surrounding residential areas:

- All vertically orientated derrick luminaires shall be reoriented such that they are aimed downwards;

- All lighting tower floodlights shall have an uplift angle of no more than 5º above the horizontal;

- All 400W metal halide floodlights should have 0º above the horizontal;

- All 400W SON-R luminaires shall be fitted with an aluminium reflector and shall be aimed directly downwards;

- All bulkhead luminaires attached to cabins shall have an upward light ratio of no more than 2.5%; and

- All floodlights attached to cabins shall have an uplift angle of no more than 35º above the horizontal.

The above criteria are detailed within the light mitigation plan contained within the Assessment. The Lighting Assessment concludes that, subject to the proposed light mitigation plan, the Proposed Development will be compliant with all guidance and will not have adverse impacts on the surrounding area.

The council's Environmental Health officer has considered the submitted assessment and agrees with its conclusions. A condition is recommended to secure the mitigation measures set out in the Lighting Assessment.

Having given due regard to the submission of the expert consultants appointed in support of the application, the representations received in opposition to the application and the response from the council's expert council's Environmental Health officer, it is considered that the risks of an adverse impact arising from the use of external/artificial lighting is very low and that these impacts are capable of being controlled by the suggested planning conditions. Therefore, notwithstanding the representations received in opposition to the application, which are acknowledged, it is considered that the proposed development accords with policies M1, M23, RD2, DS1 and DS11 of the NLLP with regard to the impact on residential amenity as a result of artificial lighting.

Waste

The most relevant development plan policies against which to assess the proposed development's effect with regard to waste are 'saved' policy M23 of the NLLP, which requires that environmental protection measures are adequate to mitigate the impacts of oil and gas production; and 'saved' policy DS11 of the NLLP, which requires that new developments do not create environmental conditions likely to affect nearby developments or adjacent areas.

Paragraph 110 of the Minerals section of the NPPG identifies that the key regulator with regard to waste from minerals sites is the Environment Agency. Further advice is set out in paragraph 112 of this section of the guidance which advises that the Environment Agency is responsible for ensuring that extractive wastes do not harm human health or the environment; it goes on the identify that an Environmental Permit is required for hydrocarbon extraction and that the operator is required, as part of the Environmental

Permitting regime, to produce and implement a Waste Management Plan. It is noted that the applicants have been granted an Environmental Permit for the proposed operations.

Paragraph 112 of the NPPG also advises that water that comes back to the surface following hydraulic fracturing may contain normally occurring radioactive materials (NORM's) and that it is the responsibility of the Environment Agency to ensure that the final treatment/disposal at water treatment facilities is acceptable, whilst identifying that local authorities will want to consider on-site storage of contaminated water and the impact of vehicle movements associated with taking it off-site for treatment. This paragraph also makes it clear that it is the Environment Agency's responsibility to monitor the chemicals used in the hydraulic fracturing process and that operators are obliged to agree all chemicals as part of their Environmental Permit.

The applicant has confirmed that for production operations, fluids will be recovered from the well either by free-flowing naturally, or with the aid of a surface pump facility which artificially lifts fluids to the surface (e.g. nodding donkey). The approximate 150 cubic metres of proppant squeeze fluid, once returned to the surface will equate to 5-6 tanker loads in total that would need to be transferred off site to a licensed waste treatment or disposal facility. Volumes of neutralised ("spent") acid mix returned from the acidisation will total 50m3 (2 tanker loads). Separated fluids would be stored within storage tanks; waste water would be collected by a licensed waste contractor and managed via a licensed facility. It has also been confirmed that all equipment that has the potential to contaminate the surface of the wellsite is contained within the bunded area which is underlain by an impermeable membrane. Surface water within the bunds is contained, with outflow into the drainage ditched controlled by an interceptor.

The Environment Agency as the key regulator with regard to the treatment/disposal of waste from minerals sites has been consulted on the application and has raised no objection to the proposed development with regard to the design of the site and the proposals for the containment and final discharge of waste. Nor have the council's Environmental Health officers raised concerns or objections with regard to waste storage or disposal. This is something that is controlled under the Environmental Permitting regime by way of a Waste Management Plan, which will be monitored by the Environment Agency. All waste will be temporarily stored on site, sampled and tested to determine the appropriate licensed waste treatment facility; the presence of NORM's within returned fluids following the proppant squeeze operation would not necessitate any additional activities above and beyond these measures.

Having given due regard to the fact that the site will be subject to a Waste Management Plan as part of its Environmental Permit, which will be agreed with and monitored by the Environment Agency, the mitigation proposals put forward by the applicant (bunding of the site, impermeable membrane etc.) and given the fact that the Environment Agency, who are the key regulator with regard to waste from hydrocarbon extraction sites, have raised no objection to the planning application, it is considered that the proposed development poses no unacceptable risk with regard to the production, storage and/or disposal of waste. Notwithstanding the responses received in opposition to the application in this regard, it is considered that the proposal complies with the relevant requirements of policies M23 and DS11 of the NLLP.

Seismicity

Numerous representations have been received raising concerns that the proposed hydraulic fracturing operation proposed (proppant squeeze) could result in induced seismicity which could result in an earthquake or vibrations which could damage local property and former mine workings in the area.

Paragraph 110 of the Minerals section of the NPPG makes it clear that the key regulator responsible for assessing the risk of and monitoring of seismic activity is the Department of Energy and Climate Change (DECC). Paragraph 112 of this section of the guidance goes on to explain that DECC are responsible for controls, usually through the licence consent regime, to mitigate seismic risks and that "*Seismic assessment of the geology of the area to establish the geological conditions, risk of seismic activity and mitigation measures to put in place is required by the Department of Energy and Climate Change for all hydraulic fracturing processes".* In 2012, DECC introduced measures to control seismic risk from hydraulic fracturing operations, with operators now required to assess the location of any relevant faults before operations take place.

Notwithstanding the fact that no high volume hydraulic fracturing is proposed and that seismicity is regulated by DECC, the applicant has confirmed that they will *"undertake, in accordance with Oil and Gas Authority guidance, a programme to monitor seismicity"*. They have also confirmed that, whilst they consider *"the potential for the proppant squeeze to induce a seismic event leading to vibration at surface is extremely remote (the operation being of small scale and short duration). Egdon is proposing to install a number of monitors at surface during the operation".* Therefore, there is a clear mechanism proposed to monitor the proppant squeeze process with regard to seismicity and this will be secured via other regulatory regimes (DECC).

As the jurisdictional control over seismicity and/or induced seismicity lies with DECC, there are no development plan policies against which to assess the proposed development in this regard. Indeed paragraph 122 of the NPPF makes it expressly clear that the authority's focus should not be upon *"the control of processes or emissions themselves where these are subject to approval under pollution control regimes"* and that it must assume that *"these regimes will operate effectively".* As referred to above, regulatory control over seismicity/induced seismicity lies with DECC, and there are no development plan policies that are relevant in this regard.

Provided that best practice is followed and appropriately enforced (responsibility lies with DECC) then there is no reason to believe that the impact of seismicity or induced seismicity as a result of the proposed development would be significant or adverse to such a degree that would warrant the refusal of planning permission on this ground.

Reference has been made to seismic events at a site in Lancashire , resulting from oil extraction operations. However, the case referred to concerned hydraulic fracturing for shale gas or oil, which is not proposed here. In this case hydraulic fracturing would be of a small scale as a one time only operation and carried out at very considerable depth.

In addition to the above, it is noted that in his consideration of the appeals relating to the previous applications for hydrocarbon production from this site, the Inspector concluded that *"the balance of evidence does not suggest an unacceptable risk of harm through seismic activity in this case."* Nothing has changed in respect of the proposed development

or the application site since the Inspectors decision in January this year that would result in an increased risk of seismicity and/or change this conclusion.

Other material considerations

Climate change

The relevant development plan policy with regard to climate change is policy CS18 of the Core Strategy for North Lincolnshire. This policy promotes development that utilises natural resources efficiently and sustainability, specifically with regard to climate change by *"meeting required national reductions of predicted CO_2 emissions by at least 34% in 2020 and 80% in 2050"*. It aims to achieve this aim by requiring all industrial and commercial premises greater than 1000 square metres to provide 20% of their expected energy demands from on-site renewable energy until the code for such buildings is applied nationally.

Numerous responses received in opposition to the application raise concerns with the government's national energy policy and that supporting a scheme for hydrocarbon production will promote the use of hydrocarbons which should be left in the ground in favour of developing clean, renewable energy sources.

Paragraph 124 of the NPPG emphasises the Government's view that, nationally, energy should come from a variety of sources, including oil and gas, and states that when making decisions, authorities should have regard to national energy policy. The Government's Annual Energy Statement (October 2013) referred to in paragraph 124 asserts that national energy policy has two key drivers: the need for energy security and carbon emission reduction. Whilst acknowledging that renewable energy will have a role to play, the Government's view is that oil and gas, especially indigenous oil and gas, will remain key to energy security and, at the same time, facilitate the reduction in greenhouse gas emissions.

The applicant has stated that *"If Wressle remains undeveloped, it will just mean that an equivalent volume of oil and gas is imported at greater environmental impact because of the energy requirement to transport the hydrocarbons from overseas. In 2015, around 45% of UK gas supply was made up of net imports. Similarly, net imports of oil comprise around 40% of the oil we use. Projections suggest net imports could increase to 73% by 2030. With reserves in the North Sea declining together with the increasing security issues and increasing cost of importing energy, it is critical that the UK provides its own reliable sources of energy whilst maintaining the highest safety and environmental standards."* This has been refuted by objectors and reference is made to fossil fuel exports from the UK and to a declining demand for gas.

Paragraph 148 of the NPPF states that the planning system plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability, providing resilience; encouraging the reuse of existing resources; and supporting the delivery of renewable energy, low carbon energy and associated infrastructure. Whereas paragraph 203 says that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. In terms of national energy policy, the Overarching National Policy Statement for Energy EN-1 explains that fossil fuels have a role to play in providing for UK energy needs during transition to a low carbon economy. This is echoed in the Annual Energy Statement, October 2013, which confirms that the Government wishes to see

energy supplies from a variety of sources (including fossil fuels). In this context it is considered that the proposed extraction of hydrocarbons is consistent with national policy for energy.

Furthermore, it is noted that the Inspector, when considering the appeals in respect of the previous applications for hydrocarbon production from the site also concluded that the proposed development was consistent with national policy in respect of energy and climate change.

Long-term impact

Concern has been raised about very long-term risks of pollution arising well after hydrocarbon extraction has finished. However, as noted by the Inspector in his decision letter in respect of the previous applications for hydrocarbon production from the site, the EA decision document on the granted Environmental Permit sets out in detail the legal and evidential requirements which would be put in place to ensure that the decommissioned well would not cause any ongoing adverse impacts.

In order for the operator to carry out the extraction of minerals they must comply with their Environmental Permit which is issued and monitored by the Environment Agency. This permit is not time limited and is valid (must be complied with) until the operator elects to surrender it. The surrender of the Environmental Permit will only be allowed once the Environment Agency is satisfied that necessary measures have been taken to avoid any ongoing pollution risk and to return the site to its previous condition.

Compliance with PEDL licensing

The Petroleum Exploration and Development Licencing regime is separate to the planning regime and is regulated by the Oil and Gas Authority. This matter is not a material consideration in the determination of this planning application.

Conclusion

As stated earlier in this report, Section 38 (6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the Development Plan, unless material considerations indicate otherwise. As discussed within the Assessment section of the report, above, the proposed development is considered to accord with the development plan policies that are deemed relevant to the determination of this application. This includes those policies relating to minerals development and specifically policy M23 of the NLLP which relates to oil and gas production. Furthermore, it is considered that the development does not conflict with those policies seeking to prevent unacceptable harm from being caused to residential amenity, highway safety, ecology, archaeology water resources or flooding.

As discussed previously, the proposed development also receives support at the national policy level in the contribution that the development could make towards the nation's energy security through the production of indigenous oil and gas reserves. The development is also consistent with the provision for a mix of energy sources during the transition to a low carbon economy. It is considered that significant weight should be given to these benefits as well as the local and national economic benefits of the propose development.

As assessed in the sections of this report above it is considered that this new application addresses the concerns raised at the public inquiry and that, as a result of the additional ground investigation, site reconfiguration and improved pollution mitigation and water monitoring arrangements, the reasons given by the Inspector for dismissing the previous appeals have been overcome. This conclusion is confirmed by the external technical experts (JBA Consulting) employed by the Council to carry out a robust review of the new application and its potential environmental impacts.

Having assessed the proposed development with respect to both development plan policy and other material considerations to which the authority must have due regard, whilst the objector expressed concerns about the potential adverse impacts of the development are both acknowledged and understood, it is considered that there are no material adverse impacts of the development that would significantly and demonstrably outweigh the benefits and therefore, in accordance with paragraph 11 of the NPPF, it is recommended that planning permission is merited.

RECOMMENDATION Grant permission subject to the following conditions:

1.
The development must be begun before the expiration of three years from the date of this permission.

Reason
To comply with section 91 of the Town and Country Planning Act 1990.

2.
The development hereby permitted shall be carried out in accordance with the following approved plans: ZG-ER-W1-PA-01, ZG-ER-W1-PA-02, ZG-ER-W1-PA-03, ZG-ER-W1-PA-04, ZG-ER-W1-PA-05, ZG-ER-W1-PA-06, ZG-ER-W1-PA-07, ZG-ER-W1-PA-08, ZG-ER-W1-PA-09, ZG-ER-W1-PA-10, ZG-ER-W1-PA-11, ZG-ER-W1-PA-12, ZG-ER-W1-PA-13, ZG-ER-W1-PA-14, ZG-ER-W1-PA-15, ZG-ER-W1-PA-16, ZG-ER-W1-PA-17, ZG-ER-W1-PA-18

Reason
For the avoidance of doubt and in the interests of proper planning.

3.
The development hereby approved shall be carried out in accordance with the Traffic Management Plan and Mitigation Measures set out in Chapter 7 of the submitted Transport Statement and the Traffic Management Plan shall be reviewed and updated as necessary throughout the construction period.

Reason
In the interests of highway safety and to comply with policy T19 of the North Lincolnshire Local Plan.

4.
Any oils, fuels, lubricants or other liquid materials shall be located on an impervious base and/or within an impervious bunded area or purpose-made self-bunding tanks so as to prevent any discharge or spillage into any watercourse, land or underground strata. Spill

kits shall also be located in appropriate locations around the site and utilised in the event of any accidental discharge/spillages.

Reason
To prevent pollution of surrounding land and water resources in accordance with policies DS1, DS11, DS13 and DS15 of the North Lincolnshire Local Plan.

5.
No ground or surface water contaminated by oil, grease or other pollutants used on or in connection with the site operations shall be discharged into any ditch or watercourse.

Reason
To prevent pollution of the water environment in accordance with policies DS13 and DS15 of the North Lincolnshire Local Plan.

6.
Prior to the commencement of development, a noise management plan (NMP) shall be submitted for written approval to the local planning authority. The NMP shall clearly set out all potential sources of noise and techniques to be used to prevent and mitigate noise which shall demonstrate compliance with noise conditions 10, 11, 12 and 13 below. The NMP shall also include methods to deal with noise complaints from the general public. The approved NMP shall be implemented in full for the duration of works and demobilisation.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

7.
Prior to the commencement of drilling operations or well stimulation on site, the name, make, model and technical noise specification for the drilling rig shall be submitted for approval to the local planning authority. Where noise predictions demonstrate potential non-compliance with night-time noise limits specified in condition 10 and 11 below, details of proposed noise mitigation measures and their expected reduction over the frequency spectrum shall be provided. The approved rig shall not be substituted without the prior written approval of the local planning authority and all approved noise mitigation measures shall be implemented in full throughout the duration of drilling.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

8.
Assembly and demobilisation of drilling rig equipment at the approved production well site shall only take place during the hours of 7am and 7pm Monday to Saturday.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

9.
Site preparation, earthworks, site construction and HGV deliveries for construction and pre-production activities shall only take place during the hours of 7am and 7pm Monday to Saturday, unless there is an operational need which has been agreed in writing in advance with the local planning authority.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

10.
Noise from the approved production well site shall not exceed 42dB LAeq5min when measured at any noise sensitive dwelling between 7pm and 7am Monday to Sunday inclusive.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

11.
Noise from the approved production well site shall not exceed 60dB LAmax when measured at any noise sensitive dwelling between 7pm and 7am Monday to Sunday inclusive.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

12.
Noise from the approved production well site shall not exceed 55 LAeq, 1h when measured at any noise sensitive dwelling between 7am and 7pm Monday to Sunday inclusive.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

13.
Noise from the approved production well site shall not exceed 70dB LAmax when measured at any noise sensitive dwelling between 7am and 7pm Monday to Sunday inclusive.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

14.
All plant and machinery shall be adequately maintained and silenced in accordance with the manufacturer's recommendations at all times.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

15.
Lighting of the site shall be carried out in accordance with the lighting plan set out in the Lighting Assessment written by Stenger and dated July 2018. The mitigation measures described in Section 8 of the Lighting Assessment shall be implemented in full for the duration of the development.

Reason
To protect the amenity of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

16.
The dust mitigation measures set out in Appendix C of the approved Air Quality Dispersal Modelling Assessment produced by AECOM and dated 4 July 2018 shall be adhered to for the duration of construction and site restoration works and there shall be no burning of waste on site at any time.

Reason
To ensure that the development does not have an adverse impact on air quality in accordance with policies DS1, DS11 and M23 of the North Lincolnshire Local Plan.

17.
Prior to the commencement of development, a borehole installation plan for the deepening of three existing groundwater monitoring boreholes and the installation of up to two additional groundwater monitoring boreholes within the Unconsolidated Sands Aquifer shall be submitted to and approved in writing by the local planning authority. The borehole installation plan shall include details of the design, logging and construction of the boreholes. No development relating to the production phase and the preparatory works associated with that phase shall take place until the additional monitoring boreholes are in place. Both the existing and the additional groundwater monitoring boreholes shall be constructed and monitored in accordance with the approved borehole installation plan.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

18.
Prior to the commencement of development, a scheme for undertaking on-site load bearing testing shall be submitted to and approved by the local planning authority. The scheme shall include plate testing across the site where additional protection is not proposed (that is, those locations not referred to at paragraph 3.6, page 13 of the Civil and Structural Design Statement prepared by Alan Wood and Partners, dated 25 May 2018), and additional cylinder testing with final screened aggregate and repeated loading cycles. The results of the plate bearing tests and cylinder tests shall be submitted to the local planning authority and the depth of aggregate cover over the areas of the site where additional protection is not proposed shall be agreed with the local planning authority prior to any production operations taking place.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

19.
No development shall commence until a construction quality assurance (CQA) report has been submitted to and approved in writing by the local planning authority. The CQA shall include the documentation listed in paragraph 3.11, page 16 of the Civil and Structural Design Statement prepared by Alan Wood and Partners, dated 25 May 2018.

Reason
To protect the amenities of neighbouring properties in accordance with policies DS1, DS11, M1 and M23 of the North Lincolnshire Local Plan.

20.
Works and biodiversity enhancements shall be carried out strictly in accordance with section 7 of the submitted document, "Wressle Well Site – Updated Ecological Appraisal" dated July 2018. The management prescriptions set out in sections 7.1, 7.2 and 7.3 of the document shall be carried out in their entirety in accordance with the timescales set out in Table 7.1. All biodiversity features shall be retained thereafter.

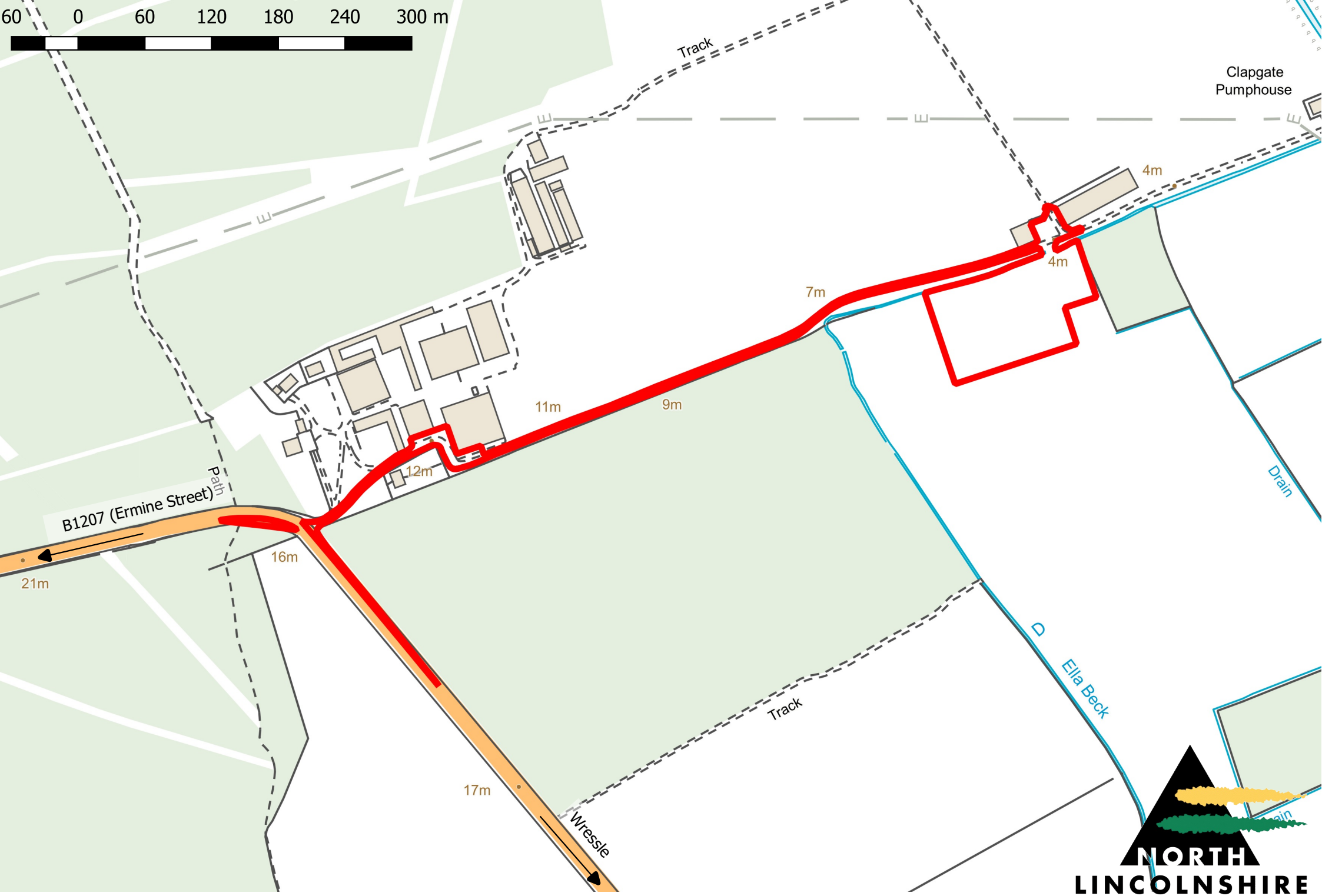
Reason
To conserve and enhance biodiversity in accordance with policies CS5 and CS17 of the North Lincolnshire Core Strategy.

21.
The site shall be restored in accordance with the approved restoration scheme and aftercare programme set out in Appendix 5 (Site Closure and Restoration Procedure) of the submitted Planning Statement produced by Barton Wilmore and dated July 2018. The aftercare period shall commence from the date the local planning authority confirms that the restoration works have been carried out and fully implemented in accordance with approved details.

Reason
To ensure proper restoration of the site and to protect the local environment in accordance with policy M1 of the North Lincolnshire Local Plan.

Informative 1
In determining this application, the council, as local planning authority, has taken account of the guidance in paragraph 38 of the National Planning Policy Framework in order to seek to secure sustainable development that improves the economic, social and environmental conditions of the area.

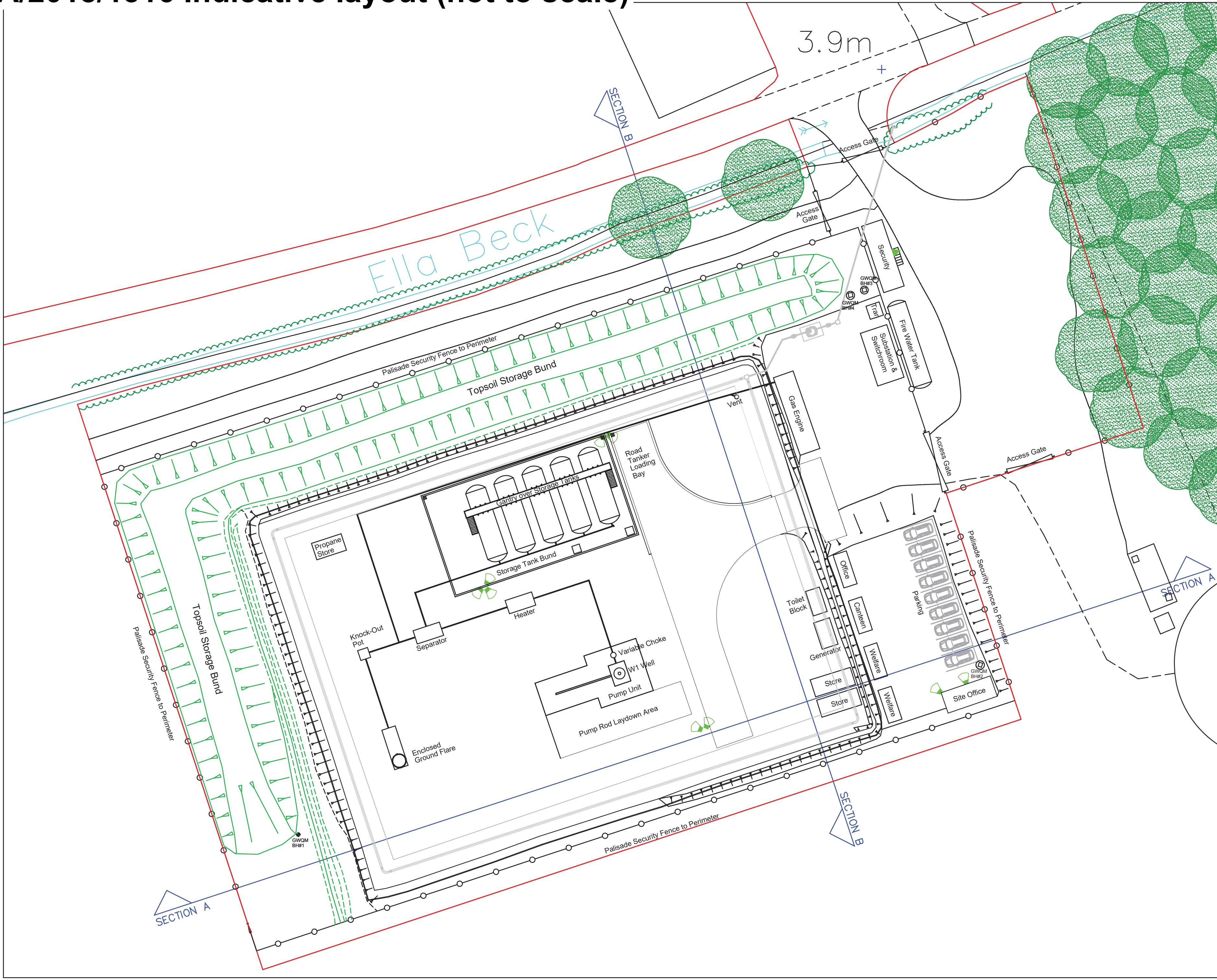
Informative 2
The applicants' attention is drawn to the consultation response from Cadent dated 19/07/2018 and the informative comments raised therein.



PA/2018/1316

NORTH LINCOLNSHIRE COUNCIL

PA/2018/1316 Indicative layout (not to scale)



KEY:

- PLANNING APPLICATION BOUNDARY
- WATER FEATURES (PONDS, DRAINS)
- EXISTING TREES
- GROUNDWATER QUALITY MONITORING BOREHOLES (#2,3 & 4)
- GROUNDWATER QUALITY MONITORING BOREHOLE (#1)
- SURFACE WATER MANAGEMENT SYSTEM

LIGHTING SPECIFICATION:

- FIXED 400W METAL HALIDE
- 250W OR 400W TUNGSTEN HALOGEN LAMP

REFER TO DRAWING: ZG-ER-W1-PA-16

REVISION HISTORY

REV	DATE	BY	DETAILS	APR
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
0	JUN18	JF	FIRST ISSUE	JF

ZETLAND GROUP
FROM CONCEPTION TO COMPLETION

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Registered in England No. 05964499. Registered office: 23A Milton Street, Saltburn by the Sea, TS12 1DJ

SITE: WRESSLE WELLSITE, NORTH LINCOLNSHIRE

PROJECT: APPLICATION FOR PLANNING PERMISSION

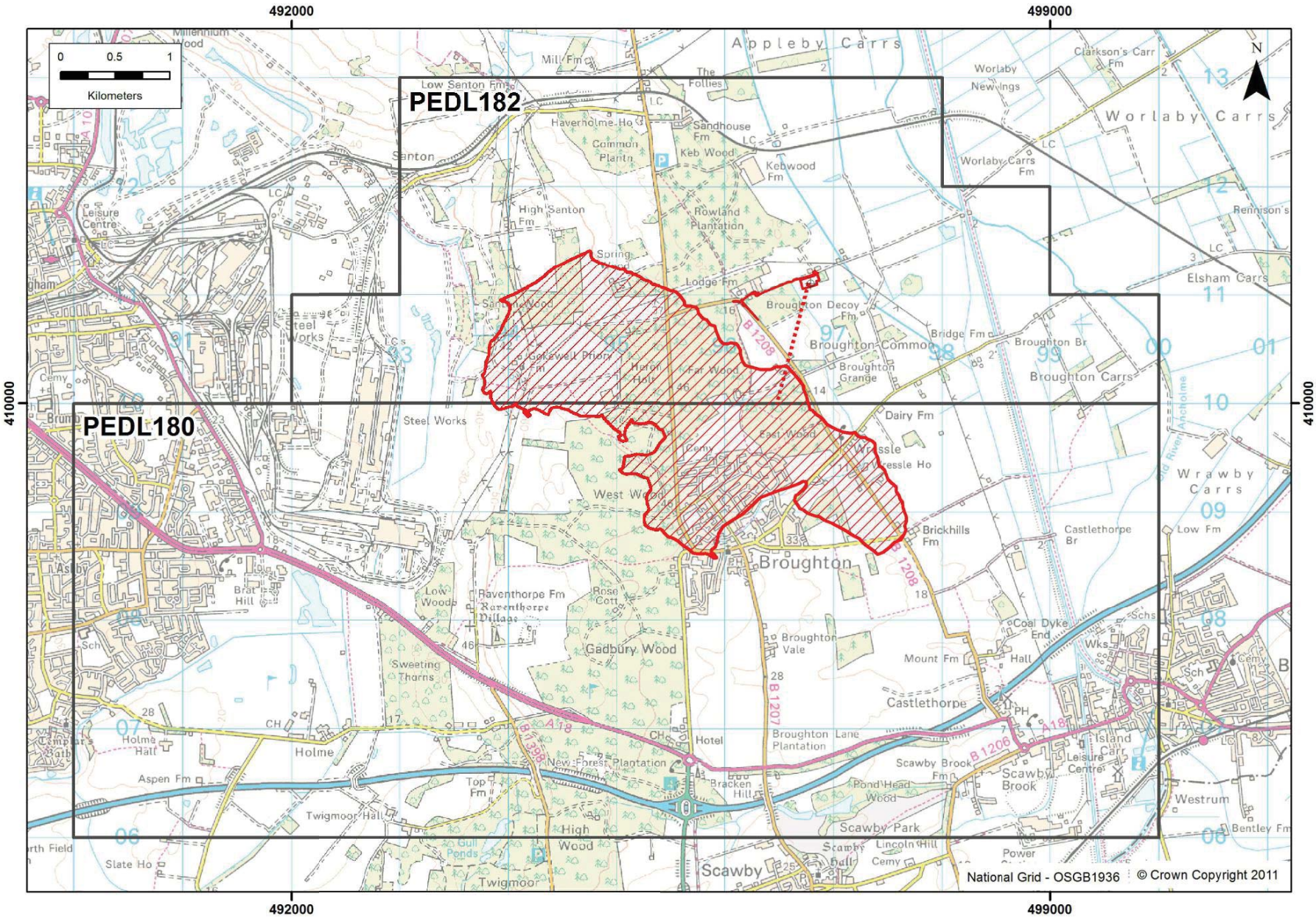
TITLE: INDICATIVE SITE LAYOUT PLAN PRODUCTION

CLIENT: EGDON RESOURCES U.K. LIMITED

Scale: 1:500
Size: A3
Sheet: 1 of 1

DWG. No: ZG-ER-W1-PA-15

PA/2018/1316 Area of hydrocarbon extraction (not to scale)



KEY:

- PLANNING APPLICATION BOUNDARY
- WATER FEATURES (PONDS, DRAINS)
- PETROLEUM EXPLORATION & DEVELOPMENT LICENCES
- WRESSLE 1 WELL PATH
- EXTENT OF HYDROCARBON EXTRACTION

REVISION HISTORY				
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0	JUN18	JF	FIRST ISSUE	JF
REV	DATE	BY	DETAILS	APR

ZETLAND GROUP
FROM CONCEPTION TO COMPLETION

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SITE:	WRESSLE WELLSITE, NORTH LINCOLNSHIRE
PROJECT:	APPLICATION FOR PLANNING PERMISSION
TITLE:	PROPOSED AREA OF HYDROCARBON EXTRACTION
CLIENT:	EGDON RESOURCES U.K. LIMITED

Scale:	As Per Scale Bar	DWG. No: ZG-ER-W1-PA-18
Size:	A3	
Sheet:	1 of 1	