Submission ID: 18629

At the preliminary meeting the ExA commented that it would keep under review the possibility of a hearing to consider the cumulative impacts of the other solar NSIP projects in this area if any of those started their examination process before the dates reserved for the 2nd round of ISH in October. The Cottam PM is confirmed for 5th September so this present the opportunity to hold such a hearing.

Lincolnshire County Council

LOCAL IMPACT REPORT

Gate Burton Solar Park

1. Terms of Reference

Introduction

1.1 This report is the Local Impact Report (LIR) for Lincolnshire County Council (LCC). In preparing this LIR regard has been made to the purpose of LIRs as set out in s60(3) of the Planning Act 2008 (as amended), DCLG's Guidance for the examination of applications for development consent, the Planning Inspectorate's Advice Note One: Local Impact Reports, as well as the Planning Inspectorate's 'Example Documents'.

Scope

1.2 This LIR relates to the impacts of the proposed development as it affects the administrative area of Lincolnshire County Council.

Purpose and Structure of the LIR

1.3 The LIR Covers topics where LCC has a statutory function or holds particular expertise. LCC defers to West Lindsey District Council on other matters.

1.4 The topics the subject of this LIR cover:

- Principle of the development
- Landscape and Visual Impact
- Highways and Transportation
- Public Rights of Way (PROW)
- Flood Risk, Drainage and Surface Water
- Minerals and Waste
- Cultural Heritage – Archaeology
- Socio-economics – Land Use
- Climate Change.

1.5 The LIR is structured by first identifying the relevant national and local policies, secondly identifying the local impacts, and lastly addresses the extent to which the development proposals accord with these policies. For each topic area, the key issues are identified on the extent the applicant addresses these issues by reference to the application documentation, including the DCO articles, requirements, and obligation, where relevant.

1.6 The LIR has sought not to duplicate material covered in the Statement of Common Ground (SoCG).

2. Summary of proposal

2.1 The proposed development will consist of the construction, operation, maintenance, and commissioning of a solar photovoltaic (PV) electricity generating facility, energy storage facility and export connection to the National Grid. The development would generate a substantial amount of low-cost renewable energy and aims to meet a national need for decarbonisation and security of supply.

2.2 The land within the Order limits is partly contained within areas governed by Lincolnshire County Council (LCC) and within the lower tier council area of West Lindsey District Council (WLDC), who will both act as the host authorities for the development. The remaining land within the order limits is contained within Nottinghamshire County Council (NCC) and the lower tier council area of Bassetlaw District Council (BDC), who will also act as host authorities.

2.3 The Development's Order Limits consist of a single site with two distinct areas, both of which are located within the area of West Lindsey District Council. Firstly, the Solar and Energy Storage Park, which is entirely contained within WLDC, makes up the bulk of the site as it includes all areas comprising solar panels, battery storage and the on-site substation. Secondly, The Grid Connection Corridor is the area of the site used for the grid connection between the Solar and Energy Storage Park and Cottam Substation, with the part located to the east of the River Trent being located within WLDC. The remaining Grid Connection Corridor to the west of the Trent falls within Bassetlaw District Council's authority.

2.4 In addition to the operational site itself, six access routes are proposed as part of the order limits, situated at points along the roads: Gainsborough Road, Kexby Lane, and Marton Road.

2.5 The Scheme will be connected to the National Grid at the Cottam Substation. The closure of the former coal fired Cottom Power Station in this area means that there is available capacity for a significant amount of electricity generation to enter the National Grid. Gate Burton Energy Park aims to utilise this in order to not only export solar generated electricity to the national grid, but to also potentially import electricity for storage at the site. The cable route between the Solar and Energy Storage Park and Cottam Substation are planned to be placed underground to minimise landscape and visual impacts.

2.6 The estimated amount of electricity that the development will be able to generate will depend on the final layout of the Scheme and technology choice. The proposed

total installed capacity is approximately 531 MW so as to maximise the grid connection export capacity of 500MW and a 60 year permission is sought.

3. Description of the area

3.1 The land within the development consists mainly of agricultural fields interspersed with individual trees, woodlands, hedgerows, linear tree belts, farm access tracks, and local transport roads.

3.2 The Agricultural Land Classification produced by the applicant concludes the application site is predominantly Grade 3b with some 3a. The hedgerows within the Order Limits are predominantly low and intermittent. The arable fields are large and generally of regular shape. Woodland is more prevalent in the north of the Solar and Energy Storage Park area.

3.3 The Site is situated closest to the village of Gate Burton, 50 meters to the west. Knaith is 200 meters, also to the west, and to the south-west in Marton at 500 meters. To the east is the village of Willingham by Stow at 700 meters, and Kexby at 1.8km.

3.4 There are limited industrial or commercial land uses within the immediate vicinity of the Order Limits. The A1500 (Stow Park Road/Till Bridge Lane) runs east to west, to the south of the development and intersects the grid connection corridor. The A156 (Gainsborough Road) runs north south, directly to the west, and intersects the grid connection corridor. The River Trent, which runs from the Humber Estuary, borders the development just west of the A156, and is also crossed by the grid connection corridor in the south.

3.5 There is a railway line connecting Lincoln and Doncaster that intersects the development. In addition, the B1241 and Willingham Road at Willingham by Stow runs from the north-south to the east of the order limits, while Marton Road and Willingham Road border it to the south.

3.6 There is one Public Right of Way (PRoW) crossing the development, and three further PRoW which run near its boundary. Around the grid connection corridor, footways are limited to the northern side of Cottam Road and the western side of Town Street both near and through the village of Cottam, as well as both sides of Torksey Ferry Road.

3.7 The main site connects to the National Grid at Cottam Power Station, with a generating capacity of 440MW, a substation and other electricity infrastructure. The method of connection is the grid connection corridor, consisting of underground high voltage cables that pass through largely agricultural land, as well as the River Trent, the A1500, and the A156.

3.8 Other infrastructure within the surrounding area include 400kv overhead powerlines and accompanying pylons, extending from Cottam sub station itself.

4. Development Plan Documents and Local Guidance

National Planning Policy

4.1 The Secretary of State is required to have regard to any relevant national policy statement (NPS), amongst other matters, when deciding whether to grant a DCO. Where there is a relevant NPS in place DCO applications are determined in line with Section 104 of the PA2008. However, where there is no relevant NPS in place then Section 105 of the PA2008 takes effect and provides the legal basis for determining DCO applications. Section 105 requires the SoS to consider 'important and relevant' matters which includes this LIR and any matters which the SoS thinks are both important and relevant to its decision.

4.2 The following NPS's are considered relevant to the determination of this DCO application however neither explicitly cover solar powered electricity generation. Nevertheless, they set out assessment principles for judging impacts of energy projects and are still a material consideration that the SoS will need to consider. The NPS's are as follows:

EN-1 - Overarching National Planning Policy Statement for Energy.
EN-3 – National Planning Policy Statement for Renewable Energy Infrastructure.
EN-5 – National Planning Policy Statement for Electricity Networks Infrastructure.

4.3 EN-1 (Overarching National Policy Statement for Energy) confirms the Government's commitment to the legally binding target to cut greenhouse gas emissions by 80% by 2050, compared to 1990 levels. It also identifies the need to increase dramatically the amount of renewable electricity generation capacity in order to meet the commitments under the EU Renewable Energy Directive and to improve energy security by reducing dependence on imported fossil fuels, decrease greenhouse gas emissions and providing economic opportunities. Solar is noted within the document as being an intermittent renewable technology.

4.4 EN-3 (National Planning Policy Statement for Renewable Energy Infrastructure) was published in 2011 and covers those technologies which were technically viable at generation capacities of over 50MW onshore and 100MW offshore. Solar PV is not included in the EN-3 because at the time it was published utility scale solar development was not considered to be commercially or technically viable. Nonetheless, it is a material planning consideration in the determination of the DCO application which the SoS will no doubt consider.

4.5 EN-5 (National Policy Statement for Electricity Networks Infrastructure) is also relevant as it recognises electricity networks as "transmission systems (the long

distance transfer of electricity through 400kV and 275kV lines), and distribution systems (lower voltage lines from 132kV to 230V from transmission substations to the end-user) which can either be carried on towers/poles or undergrounded" and "associated infrastructure, e.g. substations (the essential link between generation, transmission, and the distribution systems that also allows circuits to be switched or voltage transformed to a useable level for the consumer) and converter stations to convert DC power to AC power and vice versa." This is therefore relevant in so far as it relates to the proposed Grid connection.

Draft Revised National Planning Policy Statements

4.6 The Government is reviewing and updating the NPS's in order to ensure that the policy framework enables the delivery of infrastructure required to support the transition to Net Zero. Revised draft versions of EN-1 and EN-3 were first published and consulted upon in 2021. The revised drafts recognised and included reference to NSIP scale solar projects and contained specific policies and factors that should be taken into consideration when assessing such proposals. The draft NPS's have been updated and revised since 2021 with the latest changes being focused principally on seeking views on the importance of both onshore and offshore wind and cutting down the time to process applications relating to such projects as well as proposals to update the civil and military aviation and defence interests to reflect the status of energy developments and how impacts to civil and military aviation, meteorological radars and other types of defence interests should be managed. Much of the content relating to solar development as proposed within the first revised draft versions of EN-1 and EN-3 remains unchanged.

4.7 The revised draft EN-3 states that solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector and that government expects a five-fold increase in solar deployment by 2035 (up to 70GW). It is also stated that solar farms can be built quickly and - coupled with consistent reductions in the cost of materials and improvements in the efficiency of panels - large-scale solar is now viable in some cases to deploy subsidy-free.

4.8 Section 3.10.9 to 3.10.39 of the draft NPS sets out the key considerations and factors that will need to be taken into consideration when selecting sites and these include irradiance and site topography, proximity of site to dwellings, agricultural land classification and land type, accessibility, public rights of way, security and lighting and grid connectivity (section 3.10.9 to 3.10.39 refer). The technical considerations are set out in sections 3.10.40 to 3.10.63) and include capacity of the site, site layout design and appearance, project lifetimes and flexibility. Impacts that will need to be considered are set out in Sections 3.10.64 to 3.10.117 and biodiversity and nature conservation, landscape, visual and residential amenity, glint and glare, cultural heritage, construction including traffic and transport noise and vibration.

4.9 Both draft EN-1 and EN-3 are not yet designated and therefore do not 'have effect' for the purposes of Section 104 of the PA2008. However, the transitional arrangements set out in these documents confirms that any emerging draft energy NPSs (or those designated but not having effect) are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the SoS to consider within the framework of the Planning Act and about the specific circumstances of each DCO application. Therefore, both the current and draft NPSs identified above, are likely to be matters the SoS will consider relevant and important and considered in the determination of the application.

Development Plan

4.10 The documents that comprise the development plan are listed below. Other policy documents that that should be considered as a material consideration are also identified. The Local Policies of Relevance to the topic areas covered in this LIR are listed below.

Central Lincolnshire Local Plan

4.11 The Central Lincolnshire Local Plan 2023-2043 was adopted April 2023, replacing the Central Lincolnshire Local Plan adopted in 2017.

The Relevant Policies are:

- Policy S5: Development in the Countryside – Specifically Part E: Non-Residential development in the country. Reason for this is because of the criterion to be considered that "The development is of a size and scale commensurate with the proposed use and with the rural character of the location".

- Policy S14: Renewable Energy – Reason: "To consider if the impacts are acceptable having considered the scale, siting and design, and the consequent impacts on landscape character; visual amenity; biodiversity; geodiversity; flood risk; townscape; heritage assets, their settings and the historic landscape; and highway safety and rail safety".

- Policy S21: Flood Risk and Water Resources – Reason: majority of the sites are in flood risk zones.

- Policy S45: Strategic Infrastructure Requirements – Reason: Relevant for the infrastructure that would be constructed to enable the development to take place.

- Policy S48: Walking and Cycling Infrastructure – Reason: “protect, maintain and improve existing infrastructure, including closing gaps or deficiencies in the network and connecting communities and facilities”, this being relevant to the PROWs.

- Policy S53: Design and Amenity – Reason: “All development, including extensions and alterations to existing buildings, must achieve high quality sustainable design that contributes positively to local character, landscape and townscape, and supports diversity, equality and access for all”.

- Policy S54: Health and Wellbeing – Reason: This policy seeks to ensure access to adequate access to nature might run counter to the development essentially “taking away” open green space.

- Policy S57: The Historic Environment – Reason: archaeological interest within the sites.

- Policy S58: Protecting Lincoln, Gainsborough and Sleaford’s Setting and Character – Reason: “Protect and enhance the landscape character and setting of Gainsborough and the surrounding villages by ensuring key gateways are landscaped to enhance the setting of the town, minimise impact upon the open character of the countryside and to maintain the setting and integrity of surrounding villages”.

- Policy S59: Green and Blue Infrastructure Network – Reason: Relevant because of the nature the development itself or the development impacts on PROWs.

- Policy S60: Protecting Biodiversity and Geodiversity – Reason: Some of the woodlands near or bordering the order limit might be “irreplaceable habitats”.

- Policy S61: Biodiversity Opportunity and Delivering Measurable Net Gains – Reason: 10% biodiversity net gain is an ambition that all Development Consent Order projects are working towards as it will become mandatory for projects of this size to be comply with biodiversity net gain targets by 2025.

- Policy S62: Area of Outstanding Natural Beauty and Areas of Great Landscape Value – Reason: Relevant because of the development’s proximity to The Cliff to the east with views from and to this designated Area of Great Landscape Value to the east.

- Policy S66: Trees, Woodland and Hedgerows – Reason: Relevant because of the hedgerows around the site boundaries but could again be relevant to the Woodland areas nearby.

- Policy S67: Best and Most Versatile(BMV) Agricultural Land – Reason: there is BMV land present within the application site.

4.12 Also of Relevance is the Sturton by Stow and Stow Neighbourhood Plan (2022).

Relevant policies are:

- Sturton by Stow, and Stow Policy 1: Sustainable Development – Reason: Supports developments that get us closer to net zero gas emissions.
- Sturton by Stow, and Stow Policy 5: Delivering Good Design – Reason: identical to the above.

Lincolnshire Minerals and Waste Local Plan Core Strategy and Development Management Policies

4.13 The planning policy framework for minerals and waste within Lincolnshire is set out in the adopted Lincolnshire Mineral and Waste Local Plan (2016)

Relevant Policies are:

- Policy DM1: Presumption in favour of sustainable development – Reason: "the County Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework".
- Policy DM4: Historic Environment – Reason: Potential archaeological interest.
- Policy M2: Providing for an adequate supply of sand and gravel.
- Policy M11: Safeguarding of Mineral resources.
- Policy W1 Future Requirements for new waste sites.

Other relevant Local Policies

4.14 In addition to the development Plan documents listed above, there are several additional policy documents which provide local policy on key topics of relevance to this development.

West Lindsey District Council Strategic Flood Risk Assessment (SFRA) Final Report – July 2019

4.15 The SFRA has assessed the flood risk issues at a strategic scale to inform the spatial planning process.

West Lindsey Sustainability, Climate Change and Environment Strategy

4.16 The strategy outlines West Lindsey District Councils strategy to reach net zero emissions by 2050.

5. Assessment of Impacts

5.1 The Following sections Identify, for each topic heading listed below, the relevant policies, the key issues and impacts raised by the proposed development and the extent to which the applicant has addressed these issues in the application document.

- Principle of the development
- Landscape
- Highways and Transportation
- Public Rights of Way (PROW)
- Flood Risk, Drainage and Surface Water
- Minerals and Waste
- Cultural Heritage – Archaeology
- Socio-economics – Jobs, Skills and land use; and
- Health and Well Being

6. The principle of the development

6.1 Local Policy

- Policy S14: Renewable Energy
- Policy DM1: Presumption in favour of sustainable development.

6.2 The theme of these policies centres around the desire to support developments that are sustainable/relate to renewable energy. The principle of this development is meeting a nation need for solar/renewable energy, so it should be assessed against these policies. Policy DM1 has no specific tests/criteria beyond developments meeting the standards laid out in the NPPF, but Policy S14 calls for the following specific criteria to be met:

- The impacts are acceptable having considered the scale, siting and design, and the consequent impacts on landscape character; visual amenity; biodiversity; geodiversity; flood risk; townscape; heritage assets, their settings and the historic landscape; and highway safety and rail safety; and
- The impacts are acceptable on aviation and defence navigation system/communications; and
- The impacts are acceptable on the amenity of sensitive neighbouring uses (including local residents) by virtue of matters such as noise, dust, odour, shadow flicker, air quality and traffic;

6.3 The GBS would make a significant contribution towards renewable energy generation, providing the electricity to power an equivalent of approximately 156,000 homes. This contribution aligns to key commitments at the national level and within the adopted and emerging National Policy Statements recognising the importance of the Government's commitments to cut greenhouse gases by 80% of 2050.

6.4 The Council recognises that solar energy development can help meet targets for reducing carbon emissions, reduce reliance on fossil fuels and provide local energy security. They can also provide economic diversification for farmers and landowners and support local employment opportunities. Therefore whilst the GBS, by its nature offers significant positive impacts in terms of the production of clean renewable energy and the transition and movements towards Net Zero, in order to be supported it must be demonstrated that there are no significant adverse environmental impacts that cannot be appropriately managed and/or mitigated through the DCO process.

6.5 The sections below consider the potential impacts of the development on other factors/topics and the Examining Authority will need to balance these positive impacts against any negative impacts identified within this LIR and those raised by other host authorities and Interested Parties.

7. Landscape

7.1 Local Policy

- Policy S5: Development in the Countryside
- Policy S53: Design and Amenity
- Policy S58: Protecting Lincoln, Gainsborough and Sleaford's Setting and Character
- Policy S62: Area of Outstanding Natural Beauty and Areas of Great Landscape Value
- Policy S66: Trees, Woodland and Hedgerows.

7.2 The theme for these policies centres around the promotion of "suitable" developments within the countryside. Specifically, developments should aim to be of a good design and scale that do not detract from the character of an area and not disrupt the availability of amenities within the area or neighbouring areas (agricultural land, woodland, hedgerows, etc.).

7.3 These policies are the key ones as this development entails a significant shift in both the use of the landscape as well as its overall visual appearance. It is also worth noting that the number of policies relating to this criterion indicate that this should be thoroughly assessed.

7.4 The Council commissioned AAH Consultants to assist in the consideration and review of the landscape and visual elements of the GBS proposal and have engaged and provided feedback and advice to the Applicants design team on behalf of the Council throughout the pre-application stage. A full copy of their report and comments having reviewed the DCO application documentation is provided in Appendix A and the following assessment is based on those comments and should be read in conjunction with them.

- The Landscape and Visual Impact assessment (LVIA) and the associated figures, appendices and documents provides a thorough analysis of the development. The assessment is detailed and laid out in a logical manner, and the process of assessment is thorough and well explained. It has been carried out to industry best practice and guidance, such as Guidelines for Landscape and Visual Impact Assessment (GLVIA3), by a team of competent Chartered Landscape Architects.

- The LVIA clearly draws a distinction between landscape effects and visual effects, with the main chapter focussing on likely 'significant' effects (major and moderate effects are generally considered 'significant'). The LVIA presents an assessment of "worst case" scenario of the development, based on maximum parameters presented in the Outline Design Principles.

- The study area selection is explained in detail and the radius of the study area ("*approximately 2km around the Order limits of the Grid Connection Corridor, 3km west of the Order limits and 5km to the north, east and south*") is justified and appropriate. A wider area has been also considered (up to 10km) beyond the main Study Area to include long distance views to the east, associated with the rising land of the ridge AGLV.

- The masterplan has evolved through an iterative process, however there appears in places an over reliance upon planting just to screen proposals, without full attention to the potential impact of screening on this landscape. The LVIA and appendices does not go into detail about the level of care to ensure the design of mitigation enhances the physical landscape, or views from receptors, other than just screening the development.

The LVIA identifies significant landscape and visual effects at the four phases of construction, operation (year 1), operation (year 15), and decommissioning.

- The construction effects appear to be under-estimated in places, including visual impact and the impact of damage or loss of vegetation due to access requirements. However, this has been discussed with the developer team, and additional information on wider highways works and vegetation removal is being investigated to clarify this through the examination process. Recommend limiting vegetation loss along site boundaries for access or sight lines, or along construction access routes as this has the potential to change the character of the local landscape beyond the limits of the development.

- Regarding Cumulative effects (Cumulative landscape and visual effects are those that: "*result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments")*, the LVIA identifies that there will be adverse cumulative effects with those sites identified to be included within the assessment:

    - Only **Minor** effects were identified at construction;
    - **Moderate** effects were identified at operation with the site and West Burton Solar;
    - **Moderate** effects were identified for the combined, West Burton Solar Project, Cottam Solar Project, Tillbridge Solar Farm and the Scheme.

7.5 The cumulative change to the landscape will be considerable, and the combination of two or more sites has the potential to change the local landscape character at a scale that would be "*of more than local significance"* or would be *"in breach of recognised acceptability, legislation, policy or standards*". The cumulative impact of the four adjacent NSIP solar sites has the potential to effect the landscape at a regional scale through predominantly a change in land use: from arable to solar, creating an "energy landscape" as opposed to rural/agricultural one at present. This also has the potential to change the character from an agricultural landscape to that of an "energy" landscape when traveling through the area, and the sequential effects of multiple large scale solar sites, of which some are spread over extensive, fragmented redline boundaries, exacerbating the perception of being surrounded by solar development.

7.6 In view of the conclusions from the Council's assessment of the landscape and visual impact of the development negative impacts have been identified for the site some of which may be mitigated by the production of further evidence but the cumulative impact when combined with the other proposed solar farms in this location is negative which results in a conclusion that the scheme would be contrary to Local Plan Policy S.14 and also the other relevant Landscape Policies outlined above.

8. Highways and Transportation

8.1 Local Policy

- Policy S45: Strategic Infrastructure Requirements

Policy S45 seeks to ensure that (amongst other matters) development proposals do not severely impact on the safety and movement of traffic on the highway network or that any such impacts can be mitigated through appropriate improvements, including the provision of new or improved highway infrastructure.

8.2 The Council as Local Highway Authority for Lincolnshire, has been involved in a number of meetings with the Applicant's design team and consultants during the pre-application stage. The Transport Assessment element of the ES examines the conventional road transportation impacts of the proposed development, both during the construction and the operational phases. Having reviewed the application, the primary impact of this development will be during the construction phase.

8.3 The Council considers that the Transport and Access Chapter is appropriate and provides a reasonable estimate of HGV and car traffic associated with the development during construction and shows that the impact will be within acceptable levels on the highway network. There is also a cumulative assessment which includes the other solar farms proposed in the area, due to their locations different minor roads are used for access, so the cumulative impact is acceptable. The assessment is based on working hours (Winter 08:00-18:00 / Summer 07:00-19:00) which mean workers will travel to/from the site outside peak network hours, this will be covered by the proposed requirement in the Draft DCO. Therefore the project meets the requirements of Policy S45.

9. Public Rights of Way (PROWs)

9.1 Local Policy

- Policy S48: Walking and Cycling Infrastructure
- Policy S54: Health and Wellbeing
- Policy S59: Green and Blue Infrastructure Network.

The theme of the above policies relates to the protection, maintenance, and availability of public rights of way, specifically on the grounds that they provide public access to green/natural spaces as well as provide places for exercise, health, and wellbeing. As the land parcel for the development contains PROWs which will be impacted, these policies are relevant

9.2 There are a number of Public Rights of Way in and around the Order limits and whilst these are to be retained and ongoing access maintained, albeit with some temporary diversion, there would nonetheless be a negative impact to the users of the recreational value of various public rights of way as a result of the development with a change of experience from that of woodland and open fields to a more industrial landscape when travelling through the solar park with its associated infrastructure creating a feeling of enclosure rather than the current open landscape views.

10. Flood Risk, Drainage and Surface Water

10.1 Local Policy

- Policy S21: Flood Risk and Water Resources.

The above policy's relevance is tied to the site's identified areas of flood risk. The theme of the policy regards developments being required to demonstrate:

a) that they are informed by and take account of the best available information from all sources of flood risk and by site specific flood risk assessments where appropriate;
b) that the development does not place itself or existing land or buildings at increased risk of flooding;
c) that the development will be safe during its lifetime taking into account the impacts of climate change and will be resilient to flood risk from all forms of flooding such that in the event of a flood the development could be quickly brought back into use without significant refurbishment;
d) that the development does not affect the integrity of existing flood defences and any necessary flood mitigation measures have been agreed with the relevant bodies, where adoption, ongoing maintenance and management have been considered and any necessary agreements are in place;
e) how proposals have taken a positive approach to reducing overall flood risk and have considered the potential to contribute towards solutions for the wider area; and
f) that they have incorporated Sustainable Drainage Systems (SuDS)/ Integrated Water Management into the proposals unless they can be shown to be inappropriate.

10.2 A Flood Risk Assessment (FRA) has been prepared and submitted as part of the DCO application documentation and the FRA concludes that the majority of the development is proposed outside areas with a risk of flooding and where development is proposed in areas susceptible to flooding there may be a requirement for mitigation measures to ensure no detrimental effect to flooding potential within or from the affected watercourses in the catchment once the scheme is operational.

10.3 The Council, as Lead Local Flood Authority for Lincolnshire concludes that the surface water Flood Risk is appropriately addressed at this outline stage in the ES; and suitable mitigation measures proposed in the CEMP. More detail would be needed on areas of the site which are proposed to be made impermeable and this could be captured by an appropriate requirement. The Draft DCO includes an appropriate requirement to ensure such details are provided.

10.4 In summary, subject to the development being carried out as proposed within the DCO application documents and further details being agreed as part of subsequent DCO Requirements, the Council as Lead Local Flood Authority for Lincolnshire, is of the view that impacts of this proposal would be neutral.

11. Minerals and Waste

11.1 Local Policy

- Policy M2: Providing for an adequate supply of sand and gravel.
- Policy M11: Safeguarding of Mineral resources.
- Policy W1: future Requirements for Waste Sites.

Policy M11 of the LMWLP seeks to protect mineral resources from permanent sterilization by other development. Proposals that are therefore proposed within a mineral safeguarding area must be accompanied by a Minerals Assessment and will only be granted where it can be demonstrated that it would not sterilise a mineral resource. Where this is not the case then proposals will need to demonstrate compliance with a range of criteria.

11.2 It is noted that the vast majority of the Order limits are outside of the Mineral Safeguarding Areas (MSA), designated in the Minerals and Waste Local Plan. A small section of the chosen Grid Connection Corridor is within the sand and gravel MSA, but the relevant section of the application document confirms that "It was also agreed that wherever possible, the route of the Grid Connection Corridor follow existing corridors/linear features (field boundaries), to minimise sterilisation of the MSA for sand and gravel. This has been considered in the final design of the Scheme". This approach aligns with discussions with the applicant

11.3 When considering the nature and characteristics of the proposals, the Council is satisfied that there would be negligible impact in terms of any sterilisation of mineral resources.

11.4 Therefore from a mineral safeguarding perspective the impacts of the proposal are neutral and there are no conflicts with the mineral safeguarding policies.

11.5 In respect of Policy W1 this requires the Council to make provision for sites to meet predicted future capacity gaps for wate arisings. Currently there are no waste facilities to process discarded solar infrastructure as it is replaced during the lifetime of the development and at the decommissioning stage. When combined with the other solar projects in the County that may be granted DCO in the next 12 months this will present an issue that will need additional facilities to ensure these products are sustainably disposed of. Therefore, it will be necessary for a requirement to be imposed on any DCO permitted that requires a waste management strategy to be submitted which demonstrates the expected quantity of solar infrastructure that will be discarded during the operational and decommissioning phases and the arrangements to be put in to ensure adequate facilities are available to sustainably dispose/recycle these items in the future.

12. Cultural Heritage – Archaeology

12.1 Local Policy

- Policy S57: The Historic Environment –to protect potential archaeological assets

Policy S57 relate to the theme of limiting the impact developments will have on heritage assets. Specifically, in relation to this development, it stipulates that:

"Development affecting archaeological remains, whether known or potential, designated or undesignated, should take every practical and reasonable step to protect and, where possible, enhance their significance. Planning applications for such development should be accompanied by an appropriate and proportionate assessment to understand the potential for and significance of remains, and the impact of development upon them."

12.2 The archaeological evaluation work has been satisfactorily completed and the mitigation strategy is agreed, so the proposed requirement in the draft DCO for Archaeology will ensure the fieldwork, report and archive deposition are captured in the mitigation strategy. Therefore, there are no negative impacts identified in respect of archaeology and the requirements of Policy S57 are not compromised by the proposed development.

13. Socio-economics and Land Use

13.1 Local Policy

- Policy S67: Best and Most Versatile(BMV) Agricultural Land

Policy S67 requires proposals to protect the best and most versatile agricultural land so as to protect opportunities for food production and continuance of agricultural

economy. Significant development resulting in the loss of BMV will only be permitted if the criteria of the Policy is met.

13.2 The Council commissioned Landscope to produce a report 'Review of Soils and Agricultural Land Classification for Gate Burton' attached at Appendix B which provides a detailed review of the impact of the proposal on the agricultural land affected by the proposal. Whilst the Council acknowledges that the GBS has been designed to remove fields that predominately comprise ALC Grade 3a, BMV land remains within the application site. The vast majority of the land proposed for the Solar PV site comprises grade 3b. However, at least 20% of the principal site and 50% of the corridor site is Grade 3a land which is classed as BMV. The proposed development is likely to have a cumulative or defined negative impact that will result in the loss of agricultural production in the development area generally and/or the permanent loss of production from mostly medium quality agricultural land.

13.3 The two main land areas of BMV land are either side of the Lincoln to Gainsborough railway.

13.4 Cable route assessment - it is estimated that 50+% of the cable route will be BMV. However, irrespective of the land quality there will be issues of concern to farmers and landowners including:-

- Land drainage
- Weed burden
- Biosecurity for plant diseases
- Timeliness of soil stripping and storage.

These matters will need to be addressed if the scheme is to proceed.

13.5 During the construction phase there will be significant damage to soil structure particularly on heavy clay soils. There is inevitably a lot of trafficking of vehicles on the land to erect the panels and if this work is undertaken when soils are wet, there can be significant damage. Much of this damage can be remedied post construction, but not all and it is possible that long term drainage issues occur on the site due to the construction.

13.6 During the construction phase many of the areas will suffer soil and water issues. To address this it is recommended that a requirement is imposed on any DCO granted to ensure a Soil Management Plan, both for the site and the cable route is submitted and approved.

13.7 The loss of any agricultural land can impact upon arable food production with knock-on effects in terms of the associated food production economy and to farm enterprises affected by the development. The Council is of the view that the cumulative negative impacts of the loss of arable agricultural land places pressure on the function of this important part of the local and wider Lincolnshire rural economy as well as raising questions more generally regarding food security and the carbon

footprint impacts as a result of the need to import food due to the consequential changes in land-use. In the case of the GBS whilst the time proposed is for a specified period for a period of 60 years there is an acknowledgement in the application documents that this could be extended beyond the 60 year permission sought. In reality as technology improves the solar infrastructure will be in place for longer than this and therefore the impacts are also much greater as potentially the GBS would result in the permanent loss of the agricultural land and so should not be seen as reversible.

13.8 There are a number of small(er) and several largescale Solar PV schemes in Lincolnshire, with others planned or proposed. There are five known solar project NSIP schemes; specifically in relation to impacts on agricultural land. The situation is a moving picture as new proposals come forward from time to time. Most of these sites are proposed on farmland. Lincolnshire is very much an agricultural area with substantial areas of land within the Best and Most Versatile category. Whilst much of the non BMV land will be Grades 3b, but this is still considered to be 'moderate' and productive land.

13.9 In summary, given the overall scale of the project and the loss of agricultural land, a significant proportion of which is classed as BMV, the Council considers this loss to represent a significant negative impact not only within the local are but also when considered in-combination with the loss of land from other potential NSIP scale solar developments that are also being promoted and considered across the County. A county-level alternative assessment area should be applied which as a minimum should consider scope for connection into the National Grid at the locations proposed by the registered NSIP solar projects locally, and with specific consideration of agricultural land impacts.

13.10 Therefore the Council consider that for the reasons set out above and the more detailed report attached at Appendix B there is a negative impact on BMV which is consequently contrary to the requirements of Policy S67.

14. Fire Safety

14.1 Local Policy

Policy S54: Health and Wellbeing

This policy seeks to ensure that where any potential adverse health impacts are identified the developer will be expected to demonstrate how these will be addressed and mitigated.

14.2 The Council's Director of Public Health is undertaking research into the potential health impacts of large scale solar farms and to identify possible links to the sites of these projects and areas of deprivation. However, this will not be available in time for the submission of the LIR but will be brought to the attention of the Examining Authority if concluded during the examination.

14.3 In addition the potential health impacts and associated pollution from a battery fire in the schemes Battery Energy Storage System needs to be considered in the assessment of the project. Having reviewed the application documents from a Fire Safety perspective the Council is content that the details appear to satisfy the requirements set out in the County Fire Officer standard response to the pre-application stage of the process.

14.4 However, without further specific details, e.g. detailed plans etc. the response is based very much on the details within the application documents and note that a requirement is proposed for details of a fire safety plan to be submitted and approved by the Planning Authority. The Fire Brigade wish to continue to be engaged and views sought during the examination and reserve the right to comment on specific details of the fire strategy including drafting of suitably worded requirements to ensure the correct level of information is available and assessed before any development commences.

14.5 This also includes any requirement for Hazardous Substance Consent for the battery storage facility if this is considered necessary to be included in the Development Consent Order.

14.6 Consequently at this time a neutral response in respect of the requirements of Policy S54 health, well being and pollution is identified which will be reviewed as further information for fire safety measures are provided.

15. Other Topics

15.1 The Council may wish to make further representations as appropriate during the examination and at issue specific hearings relating to matters that are not contained within this LIR. Therefore the comments contained above are provided without prejudice to the future views that may be expressed by the Council in its capacity as an Interested Party in the examination process.

16. Conclusions

16.1 This LIR has undertaken an assessment of the likely issues and impacts that the Council considers will arise from the construction and operation of the GBS. The LIR has identified positive, neutral and negative effects at this stage.

16.2 The GBS by its nature offers positive impacts in terms of the production of clean renewable energy and transition and movement towards Net Zero as well as the potential to deliver significant biodiversity net gain through the creation of

mitigation and enhancements proposed as part of the development. There are some limited economic benefits arising from the potential creation of employment opportunities and increased spend on local services during the construction phase however these would be time-limited and therefore need to be balanced against the negative impacts identified.

16.3 A number of negative impacts, some significant, have been identified at this stage and these can be summarised as follows:

- A permanent and negative impact upon the landscape character and the appearance of the area as a consequence of changes to the current arable agricultural land use. In view of the conclusions from the Council's assessment of the landscape and visual impact of the development negative impacts have been identified for the site some of which may be mitigated by the production of further evidence but the cumulative impact when combined with the other proposed solar farms in this location is negative which results in a conclusion that the scheme would be contrary to Local Plan Policies S5, S14 and S16.
- A permanent and negative impact as a consequence of the loss of agricultural land, a significant proportion of which of which is classed best and most versatile land. This loss is not only significant at a local level but significant when considered in-combination with the loss of land from other NSIP scale solar developments that are also being promoted and considered across Lincolnshire.
- Negative impacts on the users of Public Rights of Way in and around the proposed development as a consequence of changes to the visual appearance of the area and views from these routes.

Appendices

These are listed below and attached at the back of the report	
Appendix 1	Review of Soils and Agricultural Land Classification
Appendix 2	Review of Landscape and Visual Impact

Review of Soils and Agricultural Land Classification Gate Burton Solar Project

Lincs County Council

June 2023

LANDSCOPE
LAND & PROPERTY

Contents

1. Instructions
2. Site and Proposal
3. Geology and Soils
4. Agricultural Land Classification
5. Cable Route; Soil and ALC Assessment
6. Soil Damage During Construction
7. Cumulative Impact
8. Limitations of the ALC

Biographical

Appendices

Review of Soils and ALC Gate Burton Solar Project

1. Instructions to Landscope

Landscope is instructed by Lincolnshire County Council to review and report on the agricultural aspects of Low Carbon's application for a Development Consent Order for an extensive ground mounted solar array and associated infrastructure. The proposed development occupies a total area of 652ha plus connectors and the cable route.

A review of the grading of soils for agricultural land classification compares differences between expected grades and those found in the soils baseline. It is noted that an ALC survey has been undertaken by Land Research Associates (LRA) and this report seeks to clarify the findings and set them in context.

The proposed development is likely to have a cumulative or defined negative impact that will result in the loss of agricultural production in the development area generally and/or the permanent loss of production from mostly medium quality agricultural land.

2. The Site and Proposal

The Proposed Development comprises the installation of solar photovoltaic (PV) generating modules, cabling, and grid connection infrastructure with significant.

The Site is located within the administrative boundary of West Lindsey District, in the county of Lincolnshire. The Site measures approximately 652 hectares (ha) and extends either side of the Lincoln to Gainsborough railway line. The Site boundary is represented in **Appendix 1,** which also shows the findings of the LRA ALC report.

3. Geology and Soils

Geology

The geology of the area is shown on a British Geological Map reproduced in part (**Appendix 2**) for reference. The land is primarily shown as the Scunthorpe Mudstone Formation, a heavy clay-based mudstone and various smaller areas of drift, glaciofluvial deposits and diamicton.

Soils

According to available published data, local knowledge and the national soil map indicates that the area predominates with two main soil types (**Appendix 3**). In the majority is Wickham 2 (711f) with a smaller area of Dunnington Heath (572g)

These two soils are significantly different; with Wickham 2 described as slowly permeable seasonally waterlogged fine loam over clayey soils, or fine silty over clayey soils. Dunnington Heath is described as reddish coarse and fine loamy soils over clays, but also with slowly permeable subsoils and slight seasonal waterlogging. **Appendix 4** sets out a description of each of these two soil associations from Cranfield University.

The ALC survey undertaken has revealed three main soil types across the site; sandy soils, loamy over slowly permeable soils and heavy slowly permeable soils. A soil map is included within the ALC report and this broadly confirms the national soils map picture.

4. Agricultural Land Classification

The ALC should identify where BMV land is identified and the scheme should seek to protect and minimise damage to higher grade land wherever possible in line with national planning policy. There is undoubtedly BMV land in this general vicinity and only a full ALC will identify where it is and what the Grade and quality is. Laboratory analysis of representative samples should be used to determine textures, particularly where ALC findings differ significantly from expected or provisional results.

Land Research Associates (LRA) have undertaken an ALC over the whole area. Some small areas were not surveyed, but these are not in themselves likely to change the overall scale of BMV. The survey was at a reduced scale from the 1 borehole per hectare recommended in TIN049 and the report surveyed the land at approximately 1 borehole per 2 hectares.

The majority of the site is shown as Grade 3 on the provisional ALC maps of the area. **Appendix 5** shows the approximate location of the 2 main land areas either side of the Lincoln to Gainsborough railway, in relation to land grades. **Appendix 5** includes the map of predicted Best and Most Versatile (BMV) land indicated the area is expected to have only a medium (20-60%) chance of the presence of BMV.

It is normally expected that the ALC survey be undertaken in line with the MAFF 1988 guidelines and TIN049. These documents set out the precise methodology by which the ALC survey should be undertaken, with auger bore sampling at 1 hectare intervals and a suitable number of soil pits dug to determine the precise nature of the soil(s).

However, in this case it appears that Natural England have accepted the methodology on the basis that the expected level of BMV is only moderate. The findings of the ALC report essentially identify over 80% of the site as Grade 3b. The majority of any BMV land is shown to be Grade 3a.

5. Cable Route; Soil and ALC Assessment

LRA included an additional report estimating the land grades of the cable route as an appendix to the ALC report. They conclude that:-

> *The cable route is likely to comprise a combination of BMV and poorer agricultural quality land. Land formed on sand and gravel and recorded as Blackwood Association will likely give land of best and most versatile quality, (grade 2 and subgrade 3a). Land formed in alluvial deposits and in the mudstone geology will typically give heavy slowly permeable soils of poorer subgrade 3b agricultural quality.*

From viewing the maps included in the report it seems likely that 50+% of the cable route will be BMV. However, irrespective of the land quality there will be issues of concern to farmers and landowners including:-

- Land drainage
- Weed burden
- Biosecurity for plant diseases
- Timeliness of soil stripping and storage

These matters will need to be addressed if the scheme is to proceed.

6. Soil Damage During Construction

Soil structure can be significantly damaged during the construction phase of the process, particularly on heavy clay soils. There is inevitably a lot of trafficking of vehicles on the land to erect the panels and if this work is undertaken when soils are wet, there can be significant damage. Much of this damage can be remedied post construction, but not all and it is possible that long term drainage issues occur on the site due to the construction.

During the construction phase many of the areas will affect soil and water issues. **Appendix 6** sets out a basic Soil Management Plan that should be established as part of the Construction Phase, to minimise the impact on soil resources. The following headings should be included in the Soil Management Plan, both for the site and the cable route.

- Site preparation;
- Import of construction materials, plant and equipment to Site;
- Establishment of Site construction compounds and welfare facilities;
- Cable installation;
- Temporary construction compounds;
- Trenching in sections
- Upgrading existing tracks and construction of new access roads within the Site;
- The upgrade or construction of crossing points (bridges /culverts) at drainage ditches within the Site;
- Appropriate storage and capping of soil;
- Appropriate construction drainage;
- Sectionalised approach of duct installation;
- Excavation and installation of jointing pits;
- Cable pulling;
- Testing and commissioning; and
- Site reinstatement (i.e. returning any land used during construction, for temporary purposes, back to its previous condition).
- Use of borrow pits

Appendix 7 shows photographs of before during and after construction of a large solar farm in Hampshire where soil structural issues were a major problem post construction. Once the panels are in place usual agricultural practices such as ploughing and subsoiling become difficult.

7. Cumulative Impacts including County Wide ALC

There are a number of small(er) and several largescale Solar PV schemes in Lincolnshire, with others planned or proposed. There are five known solar project NSIP schemes; specifically in relation to impacts on agricultural land. The situation is a moving picture as new proposals come forward from time to time. Most of these sites are proposed on farmland. Lincolnshire is very much an agricultural area with substantial areas of land within the Best and Most Versatile category. Much of the non BMV land will be Grades 3b, still considered to be 'moderate' and productive land.

A county-level alternative assessment area should be applied which as a minimum should consider scope for connection into the National Grid at the locations proposed by the registered NSIP solar projects locally, and with specific consideration of agricultural land impacts.

For a project of this scale where the proposal will tie up the land for up to 40 years, there will be some significant impact. The area is large locally and although the quantities of BMV are relatively low the impact will still be moderately significant.

Environmental Impact Assessments give guidance on the size and quality of Land Grade that is or can be affected by development proposals. The loss of such a large area of land would normally be considered as significant at District or County level, even though the use is 'temporary'. Any permanent loss of land due either to construction or through biodiversity designation may affect this assessment further.

8. Limitations of the ALC

a) Predictive versus Actual ALC

As set out above the ALC report is not fully in line with the MAFF 1988 guidance, which recommends auger borings at 1 hectare intervals, and soil pits dug in representative soils types. The report is more in line with a reconnaissance survey.

However, the results are not out of keeping with the expected finding given that the provisional map is showing Grade 3 land and the Predictive BMV map suggest only moderate amounts of BMV. The actual BMV findings are less than the expected findings, but this still falls within the normal range.

b) Farming Circumstance and Impact on Land Holdings

There is no mention of the impact on farm holdings or land structures affected by the proposal. From local knowledge there are 4 main landowners, or occupiers, but the report does not outline the impact on any of these occupiers or the nature of the tenure of their holdings.

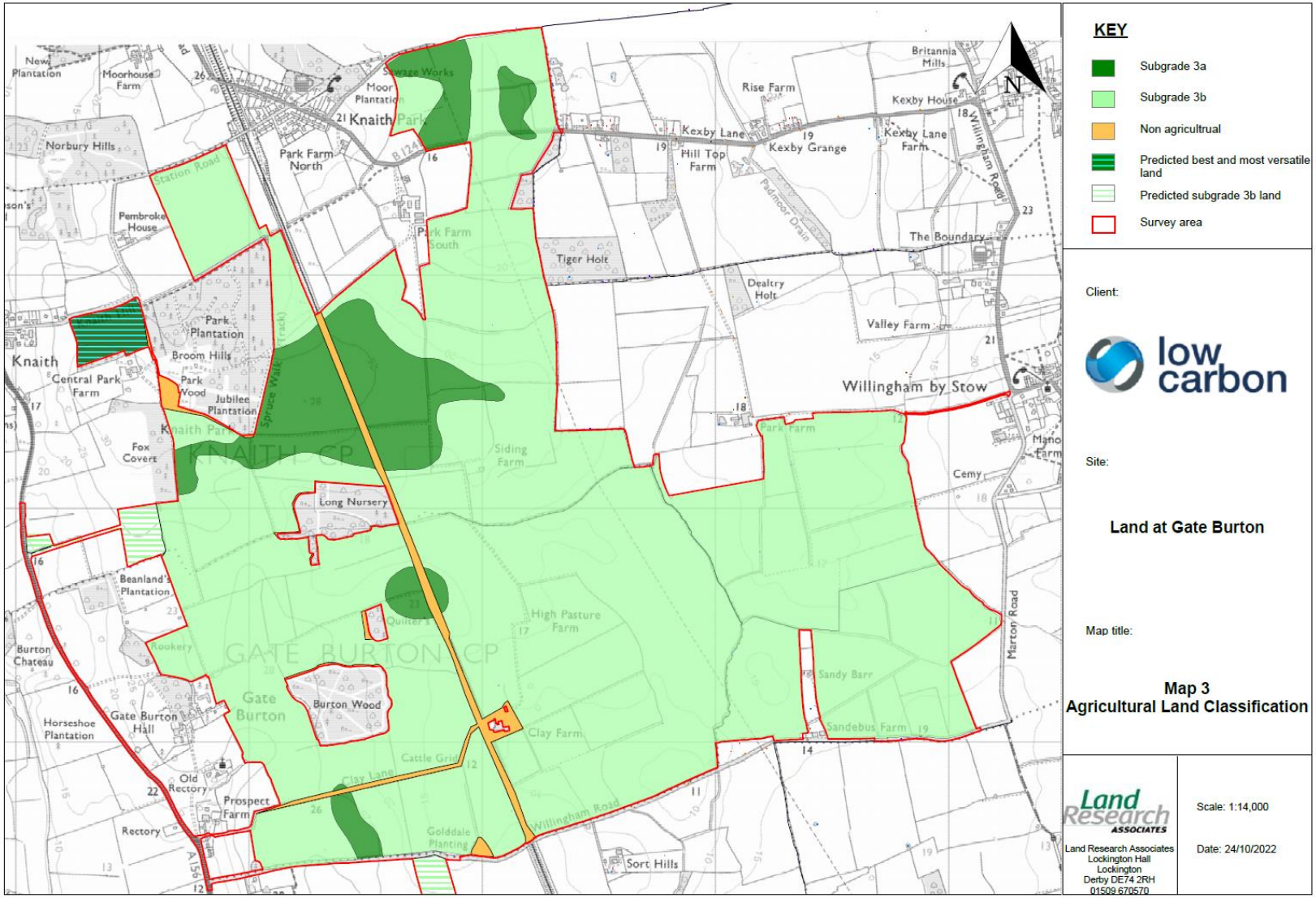
In considering the impact on the overall farming enterprises both locally and across the District or County, it may be necessary to seek additional information on the impact on the individual farms themselves. This might include the loss of agri-environmental schemes, miscanthus production, as well as the more normal range of mainly arable crops and income. There should be some discussion about the impact on farm viability and profitability following the implementation of the proposed scheme.

Biographical

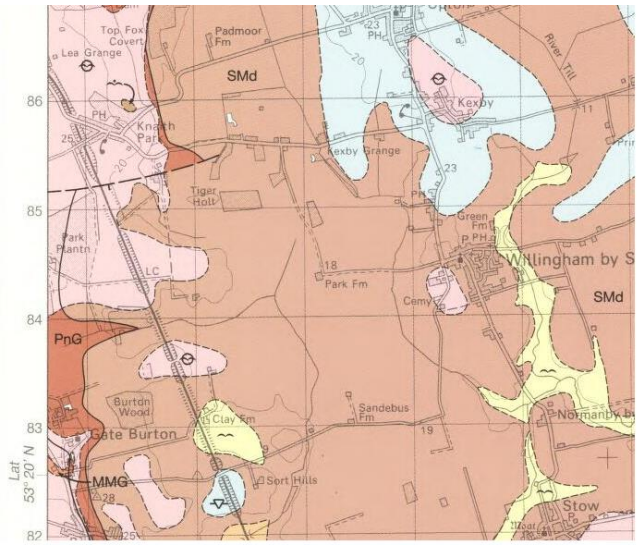
Sam Franklin BSc (Hons) MSc MISoilSci PIEMA FBIAC
A Panel Member of the Agricultural and Land Drainage Tribunal

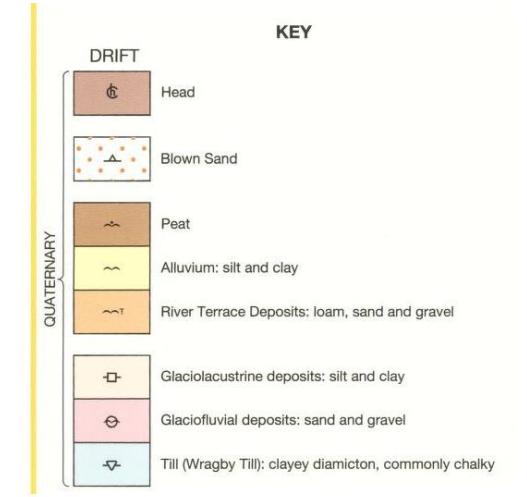
- Sam is a Member of the Institute of Professional Soil Scientists and a Life Member of the British Society of Soil Science. He undertakes soil survey and land management work for private clients, developers, local authorities and government agencies and has worked on soil restoration, flood risk, drainage and land improvement projects, as well as Agricultural Land Classification for roads, development sites, renewable energy projects and EIA. He has been a Professional Associate of the Institute of Environmental Assessment, since 2001.
- He has an MSc from Cranfield University, attending Cranfield advanced training in Soil Matters, Land Evaluation, Soil & Water: Principles and Management in Production Systems and soil science courses of IPSS and Lancaster University. He has given talks, demonstrations and on-farm advice on ALC, soil and water management, land drainage, rainwater harvesting and soil husbandry. Sam has worked overseas in dryland climates and is familiar with land drainage, irrigation scheduling and reservoir design.
- He is from a family farm and has a BSc (Hons) in Agriculture from Newcastle University and considerable practical, farm-based agricultural, horticultural and soils management experience gained on mixed, livestock, horticultural and arable units and international work. Sam is a Fellow of the British Institute of Agricultural Consultants (FBIAC) and holds the Royal Horticultural Society Certificate in Horticulture.
- As a qualified chartered surveyor (MRICS, FAAV) and agricultural consultant he has over 35 years of experience across a wide range of property matters including both commercial and housing planning projects, compulsory purchase, new roads, pipelines and rail projects, development land, farming, property management, renewable energy, minerals, land restoration, archaeological surveys, and EIA.
- Sam has been managing director of a surveying and rural planning business since 2001 (www.landscope.co.uk). Previous employment includes five years at the RSPB, work for other environmental and conservation organisations, regarding landscape restoration & management, habitat creation, minerals restoration and woodland management; all requiring detailed soils, water and environmental knowledge.
- He has undertaken soil and water management, soil husbandry and Catchment Sensitive Farming work for Natural England and since 2003 has given regular rural planning consultancy advice to Local Planning Authorities, mainly across southern, eastern and midland England; acting as agricultural, equestrian and rural resource expert, regularly attending planning committees, public inquiries, hearings, NSIP and examinations in public.

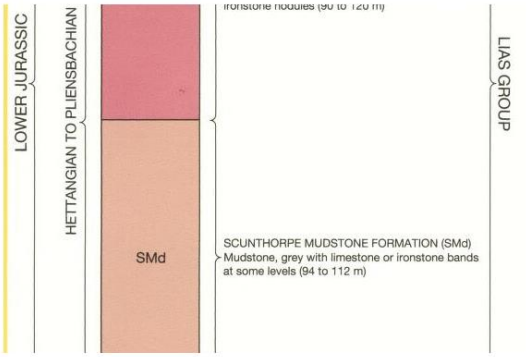
Appendix 1


KEY
Subgrade 3a
Subgrade 3b
Non agricultrual
Predicted best and most versatile land
Predicted subgrade 3b land
Survey area
Client:
low carbon
Site:
Land at Gate Burton
Map title:
Map 3
Agricultural Land Classification
Land Research Associates
Lockington Hall
Lockington
Derby DE74 2RH
01509 670570
Scale: 1:14,000
Date: 24/10/2022
N
Knaith
Knaith Park
Willingham by Stow
GATE BURTON CP
KNAITH CP
Gate Burton
Tiger Holt
Burton Wood
Long Nursery
Park Plantation
Broom Hills
Park Wood
Jubilee Plantation
Fox Covert
Central Park Farm
Park Farm North
Park Farm South
Hill Top Farm
Kexby Grange
Kexby Lane Farm
Kexby House
Rise Farm
Britannia Mills
Valley Farm
Dealtry Holt
The Boundary
Siding Farm
High Pasture Farm
Clay Farm
Sandy Barr
Sandebus Farm
Park Farm
Manor Farm
Cemy
Marton Road
Willingham Road
Padmoor Drain
Station Road
Spruce Walk (Track)
Norbury Hills
Moorhouse Farm
New Plantation
Moor Plantation
Pembroke House
Beanland's Plantation
Rookery
Burton Chateau
Horseshoe Plantation
Gate Burton Hall
Old Rectory
Prospect Farm
Rectory
Golddale Planting
Clay Lane
Cattle Grid
Sort Hills
Sewage Works
B1241
A156

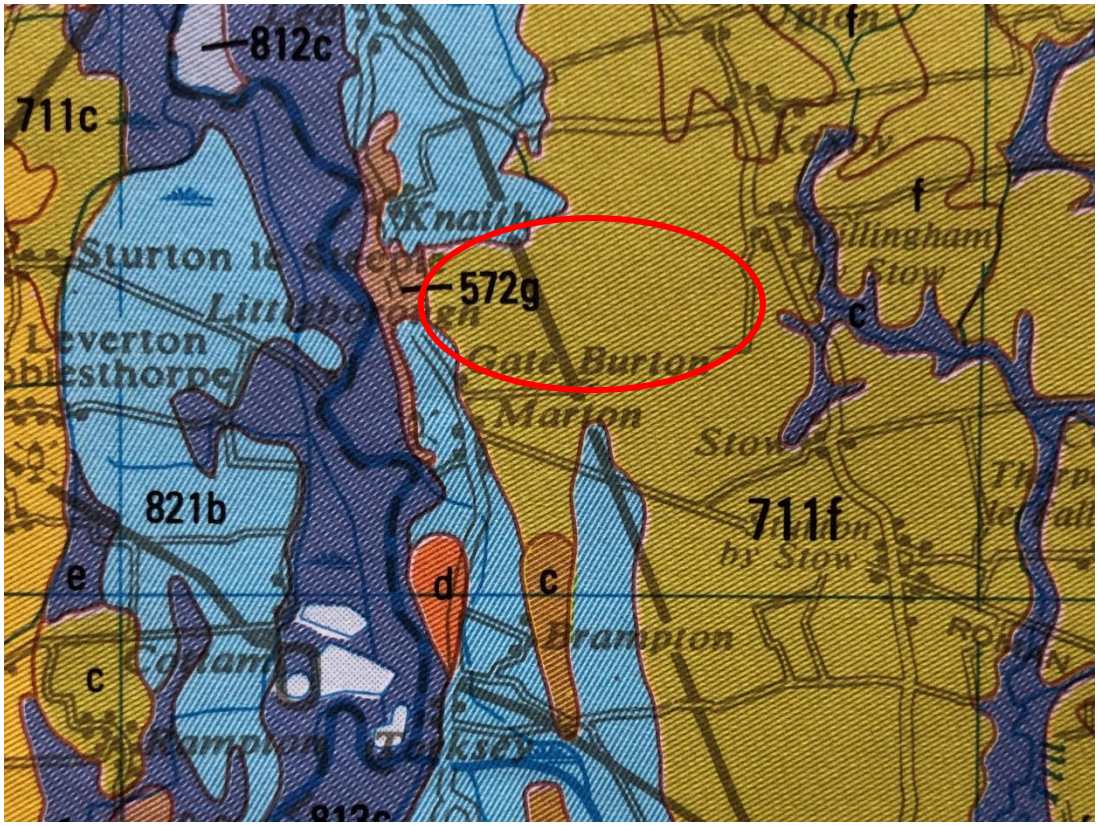
Appendix 2







Appendix 3



0711f WICKHAM 2

Detailed Description

This association is extensive where thin loamy drift covers Jurassic and Cretaceous clay shales. It consists mainly of fine loamy over clayey typical stagnogley soils of the Wickham series but, where drift is absent, clayey soils of the Denchworth series are common. The better-drained stagnogleyic argillic brown earths of the Oxpasture series and calcareous clayey soils of the Evesham series, are sporadically distributed. There are many small inclusions of other soils; these are described below and are listed in the key.

The association covers approximately 320 km² mainly in valleys but also on plateaux of Middle and Upper Jurassic rocks in east Leicestershire where Wickham soils have a larger than average silt content. Narrow alluvial flats along many valleys carry clayey, wet Fladbury soils and in south Leicestershire there are calcareous St Lawrence series. Clayey Holdenby and Lawford soils are associated with patches of clayey drift. On the Rhaetic and Lower Lias sediments in east Worcestershire where the country rock is more calcareous than elsewhere, Evesham and Haselor soils and the former Wedmore series are important associates.

This association covers 545 km² in Eastern England mainly in Lincolnshire and Northamptonshire but also in west Norfolk. In Lincolnshire it is mainly in the Lias Clay vale between Lincoln and Newark where the Trent river terrace deposits are a source for the superficial loamy drift. Patches of sand and gravel give small inclusions of Quorndon soils, and some coarse loamy over clayey soils of the Kings Newton series occur on the edge of the river terraces. Oxpasture soils become increasingly common towards the limestone scarp of Lincoln Edge, and small patches of Beccles soils are included where the association abuts chalky till. Evesham soils are uncommon in the Lias vale and are found mainly in south-west Lincolnshire. However, Oxpasture and Evesham soils are more common on Upper Jurassic and Cretaceous rocks bordering the Fens. The association also occurs in the Ancholme valley north of Lincoln; north-east and east of Lincoln on slopes of narrow valleys cut into chalky till; on the western edge of the Wolds; and in the deeply dissected valleys of the southern Wolds. In Northamptonshire the association occurs both in narrow valleys cut into the clay shales and on the plateaux formed by Upper Jurassic rocks. Here in the valleys, Evesham soils are less frequent than elsewhere and in general the soils on the hilltops are siltier than those in the vales, and Oxpasture soils are common. Quorndon soils are a common inclusion in west Norfolk on flat or gently sloping land at the foot of the chalk scarp. Here Oxpasture soils are not found.

In the South West, the proportion of Wickham and Denchworth soils is greater than in the Midlands. Lawford profiles are common in places, but Evesham and Oxpasture soils are relatively rare. The association, which covers about 300 km², occurs mainly in the wide vales of Gloucestershire, Wiltshire, Somerset and Dorset on Jurassic and Gault Clays. It also occurs on the Oligocene clays of the Bovey and Petrockstow basins, where Wickham and clayey Teigngrace soils occupy two-thirds of the mapped area and the ancillary soils mainly belong to the Ipstones and Brickfield series. There is also some disturbed ground and waste heaps from ball clay working. Small patches of Oak and Hornbeam soils are included on the gravels that cap small knolls in Dorset and south Somerset, and in north Wiltshire where the gravels contain flint and sarsen stone derived from the chalk outcrop to the south.

In South East England the association occurs on low ground in Oxfordshire and Buckinghamshire, over Lower Lias, Oxford, Kimmeridge and Gault Clays. On the Lias, it is present on the lower slopes of valleys, particularly along the Cherwell, below ridges capped by Middle Lias ironstone or Great Oolite limestone. Elsewhere the association occurs below the Corallian scarp and at the margins of river terraces. Oxpasture soils feature only occasionally, and Evesham soils are restricted to river terrace bluffs and to ground near the Corallian scarp. Some Kings Newton soils have been recorded on the terrace drifts and near the Upper Greensand outcrop. Where the drift is clayey, Lawford soils occur. Rowsham soils have been recorded in the Tiddington area.

In Northern England the association covers 45 km², principally in the Howardian Hills of North Yorkshire. Here it occurs on plateau sites where thin drift from weathered sandstone and siltstones covers clay shale. In Humberside, small areas near Brigg, in valley drift, and near Kirton-in¬Lindsey, on Head below the Lincolnshire Limestone escarpment, have fewer clayey inclusions than elsewhere.

Soil Water Regime

Occurring mainly on level or gently sloping sites, these soils which have slowly permeable subsoils are seasonally waterlogged (Wetness Class III and IV). Wickham, Evesham and Oxpasture soils respond well to artificial drainage hut, because of their poor hydraulic conductivity, the Denchworth and Lawford series are more difficult to drain effectively. When the soils are waterlogged, excess water moves laterally mostly as surface run-off.

In the South West of England having slowly permeable subsoils and sited mainly on level or near-level ground the soils are waterlogged for prolonged periods during the growing season (Wetness Class V) where average annual rainfall exceeds 800 mm. In drier districts like north Gloucestershire, waterlogging is generally confined to winter (Wetness Class III).

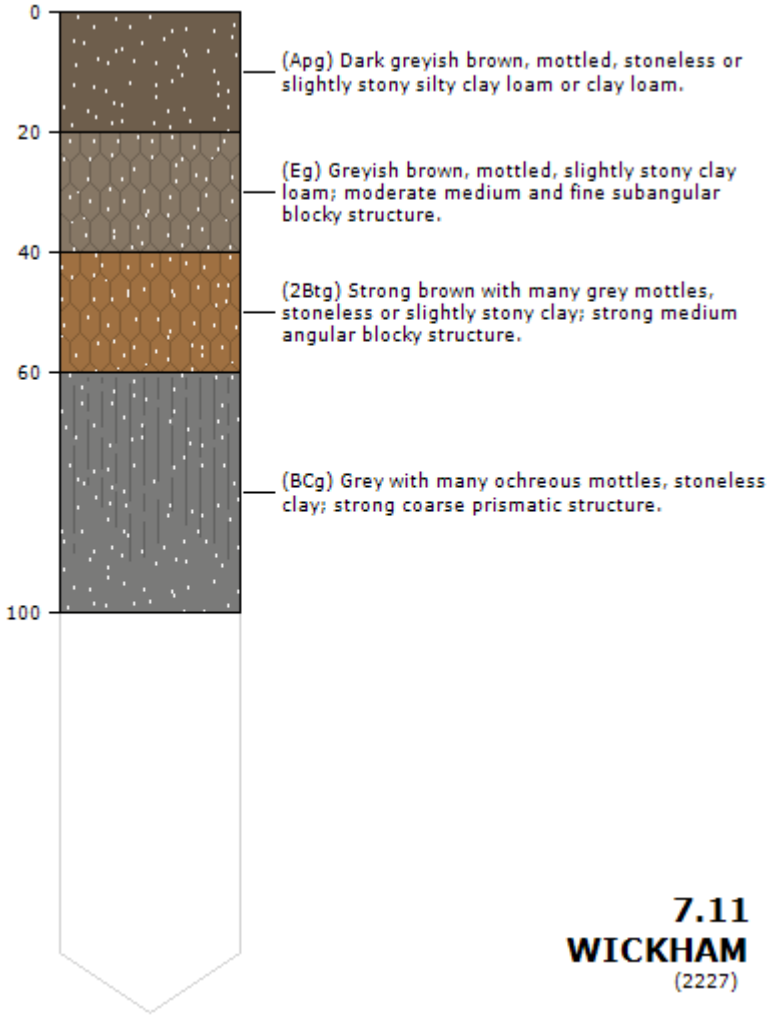
Cropping and Land Use

Over much of this association the land is used for cereals and ley grassland. Oilseed rape has expanded recently and provides an alternative break crop to ley grassland. There is little opportunity for spring cultivation so almost all cereals are autumn-sown. Cereal yields may be reduced by slight droughtiness. Soil structure is easily damaged if the soils are cultivated when wet and careful timing of field operations is critical. Grass yields are restricted by drought and the grazing period is limited during spring and autumn because of a risk of poaching. Wickham and Denchworth soils are acid in reaction but, Evesham and Haselor soils are neutral or slightly alkaline. In wetter districts most of the soils are under long-term grassland with small areas of autumn sown cereals. The grass yields are potentially large, and most of the soils are only slightly droughty though the grazing season is shortened because of the risk of poaching. In the wettest places, the maximum safe grazing period is as little as 100 days. Where the average annual rainfall is below 750 mm ley-arable farming is more usual. Where cultivated, the soils suffer from compaction and structural damage by machinery and the timing of cultivations is critical. Phosphorus levels are naturally low, but potassium is adequate for most plant needs.

7.11 WICKHAM Definition

Major soil group:	07 surface-water gley soils	Seasonally waterlogged slowly permeable soils, formed above 3 m 0.D. and prominently mottled above 40 cm depth. They have no relatively permeable material starting within and extending below 1 m of the surface.
Soil Group:	1 stagnogley soils	With a distinct topsoil. They are found mainly in lowland Britain.
Soil Subgroup:	1 typical stagnogley soils	(with ordinary clay enriched subsoil)
Soil Series:		medium loamy or medium silty drift over clayey material passing to clay or soft mudstone

Brief Profile Description



0572g DUNNINGTON HEATH

Detailed Description

Stagnogleyic argillic brown earths of the Dunnington Heath and Whimple series occur on Triassic mudstone where it is covered by thin loamy Head or glaciofluvial drift. Dunnington Heath soils are found on gently sloping or level lower slopes where brown coarse loamy upper horizons containing quartzite pebbles pass abruptly but at irregular depth into a reddish brown clayey and slowly permeable subsoil. Whimple soils otherwise similar, but with fine loamy upper horizons, are randomly mixed with Dunnington Heath soils on gentle slopes but are dominant on moderate slopes. Whimple soils often merge upslope into clayey reddish Worcester series.

The Dunnington Heath association is extensive on the west-facing slopes of the Soar valley north of Loughborough and south of the Trent between Kingston on Soar and East Bridgford. There are minor occurrences in south Derbyshire, eastern Nottinghamshire and near Leamington Spa. In total the association covers almost 125 km² of land. Most delineations include small patches of deep coarse loamy drift carrying Wick and Arrow soils, and some, south of Nottingham, contain small patches of till with Flint or Salwick soils. In places, particularly between East Bridgford and Cotgrave, some of the drift is derived from thin sandstone skerries within the mudstones. Bromsgrove and Staunton soils occur occasionally on these sandstones. Brockhurst series, often occurs in valley bottoms and other low places, sometimes adjacent to narrow strips of alluvial Fladbury and Compton soils.

The association covers about 3 km² of land near Knaith, south of Gainsborough and near Newton on Trent in Lincolnshire. Here Dunnington Heath series is dominant but Whimple soils cover between a third and a half of the ground. Soils similar to Dunnington Heath series but overlying greenish mudstone also occur. There are minor inclusions of Ollerton and Newport series on deep patches of sand.

The association only occurs on 5 km² of land near Epworth in the Isle of Axholme and at Holme on Spalding Moor. Near Epworth it is on gently sloping ground adjoining blown sand and consists mainly of the Dunnington Heath series along with Whimple soils and the Wick and Newport series. At Holme-on-Spalding-Moor the association occurs on a steep-sided hill with a capping of glacial sand and gravel and with blown sand at its base. Here the association is formed equally of the Worcester, Dunnington Heath and Newport series with a few profiles of the Kexby and Everingham series at the bottom of the hill.

Soil Water Regime

In Whimple and Dunnington Heath soils, upper horizons are relatively permeable but drainage is impeded by slowly permeable subsoils, causing temporary winter waterlogging. On level or concave sites, or where the clay subsoils are close to the surface, the soils are seasonally waterlogged (Wetness Class III), but elsewhere and where the loamy horizons are thicker, they are only occasionally waterlogged (Wetness Class II). Both soils, particularly Dunnington Heath series, respond to drainage which reduces the duration of winter waterlogging substantially. These soils can accept excess winter rain and delay run-off during wet periods.

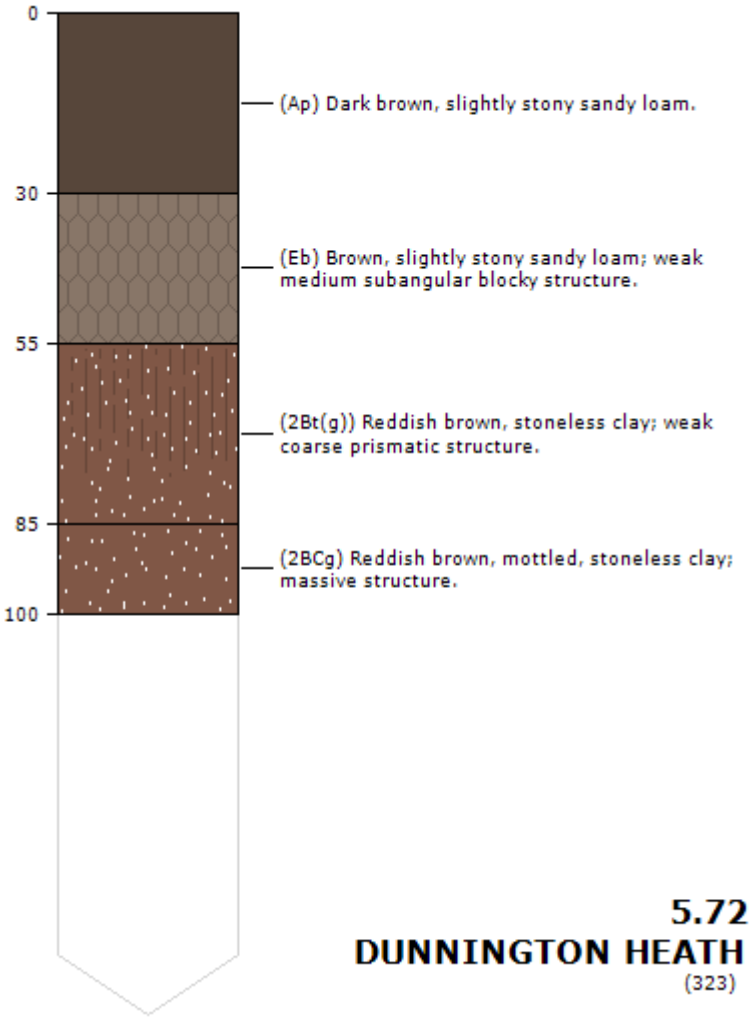
Cropping and Land Use

Climate and soil characteristics combine to give the Dunnington Heath association flexibility in use and a wide range of crops, but mainly cereals, is grown. Both Dunnington Heath and Whimple soils have adequate opportunity for spring field work in all but wet years so root crops can be sown, and the late return to field capacity permits the harvesting of root crops with risk of soil structural damage only on the heavier Whimple soils. Available water capacities, ranging from 110 to 150 mm, fall slightly short of arable crop water needs. Irrigation of drought sensitive crops such as potatoes is therefore desirable for maximum yields. The soils are slightly droughty for all crops and moderately droughty for grass. Both Whimple and Dunnington Heath soils are suitable for direct drilling of winter cereals but are less suited for spring sowings. Periodic liming is required to maintain pH; potassium and phosphorus status depends on past fertilizer practice though phosphorus is usually retained in a readily available form. Manganese deficiency occurs locally associated with poor physical conditions or high organic matter content.

Definition

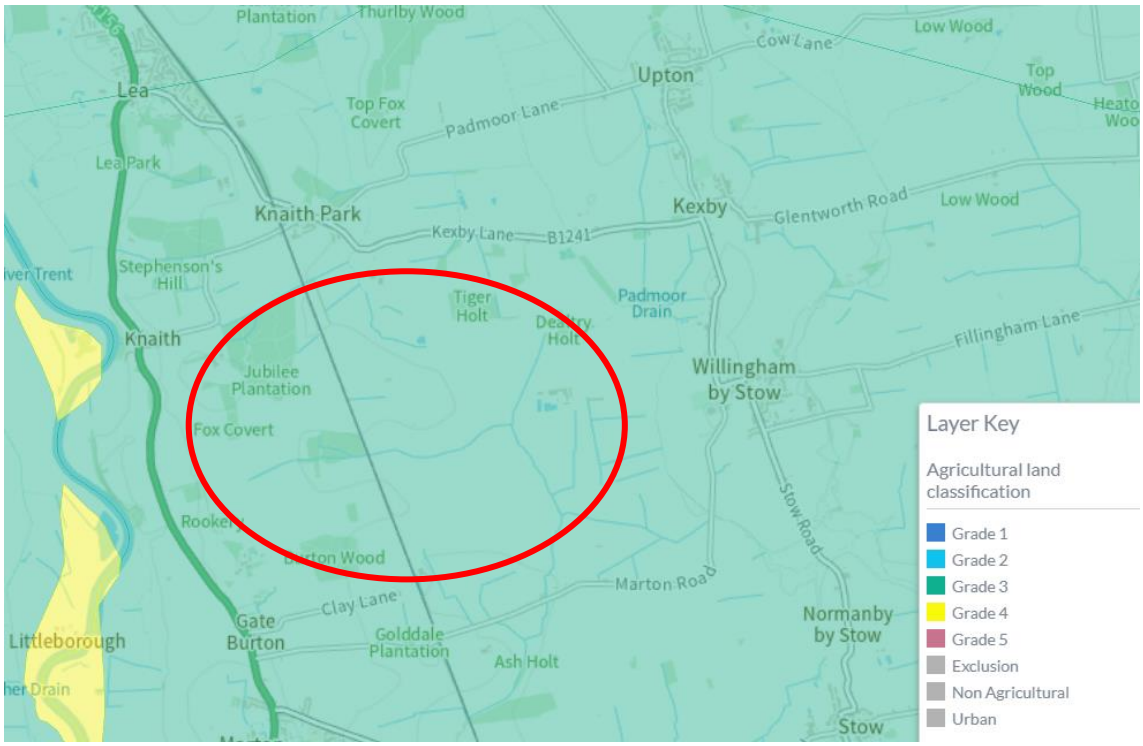
Major soil group:	05 brown soils	With dominantly brownish or reddish subsoils and no prominent mottling or greyish colours (gleying) above 40 cm depth. They are developed mainly on permeable materials at elevations below about 300 m.0.D. Most are in agricultural use.
Soil Group:	7 argillic brown earths	Loamy or clayey with an ordinary clay-enriched subsoil.
Soil Subgroup:	2 stagnogleyic argillic brown earths	(faintly mottled with slowly permeable subsoil)
Soil Series:		light loamy drift over reddish clayey material passing to clay or soft mudstone

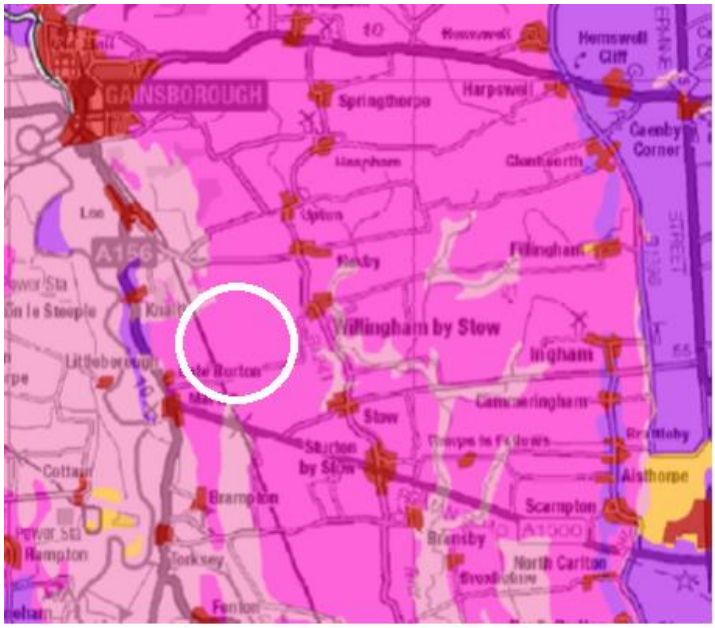
Brief Profile Description



5.72
DUNNINGTON HEATH
(323)

Appendix 5





Predictive BMV Land Assesment © Defra

- High likelihood of BMV land (>60% area bmv)
- Moderate likelihood of BMV land (20 - 60% area bmv)
- Low likelihood of BMV land (<= 20% area bmv)
- Non-agricultural use
- Urban / Industrial

Appendix 6

Soil Management Plan (Outline)

1. The soil stripping, handling, storage and replacement operations should be undertaken in a manner that is consistent with suitable specification and methodology set out in a Soil Management Plan.
2. All topsoil and subsoil material shall be stripped from areas affected by top soil storage bunds, subsoil storage bunds, general fill bunds, hard-standings and other constructions including temporary access roads and vehicle trafficking routes, and shall be stored separately in bunds from any imported material and shall be used for the restoration of the temporary soil storage site unless otherwise agreed in writing by the Local Planning Authority.
3. Soils should be stripped, stored and replaced in line with the MAFF Good Practice Guide for Handling Soils Sheets 1, 2, 3 and 4 - http://webarchive.nationalarchives.gov.uk/20090306103114/http:/www.defra.gov.uk/farm/environment/land-use/soilguid/index.htm .
4. Topsoil and subsoil storage bunds should be placed in approved locations and constructed to ensure secure storage without damage, loss or contamination.
5. Topsoil and subsoil should be stored in bunds not exceeding 3m in height above adjacent existing ground level and shall be constructed and shaped by excavator only (dump trucks should not traffic across the bunds at any time).
6. Imported general fill material should be stored in bunds not exceeding 4m in height above adjacent existing ground level.
7. Bunds should be seeded to grass at the earliest opportunity and shall not be allowed to over-winter without grass cover.
8. No topsoil or subsoil should be sold or otherwise removed from the site.
9. Within 3 months of their construction, the Developer should provide a detailed plan of soil storage bunds showing details of position, volume and soil type. The Developer shall be responsible for maintaining an up-to-date record of all soil storage and general fill bunds throughout the life of the site.
10. The stripping, movement and re-spreading of topsoil and subsoil material should only be undertaken when the topsoil and subsoil material is in a dry and friable condition and the ground is sufficiently dry to allow the passage of heavy machinery and vehicles over it without damage to the soils.
11. All injurious weeds, as defined by the Weeds Act 1959, growing within the working site should be eradicated or adequately controlled by approved method.
12. All vegetation growing on soil storage bunds and peripheral areas within the site should be kept in tidy condition by cutting at least once during the growing season.
13. The boundary of the development should be made stock proof for the duration of the temporary development.
14. All temporary plant, machinery, buildings, fixed equipment, roads and areas of hard standing including site compounds should be removed.
15. The natural subsoil base material should be comprehensively ripped to a minimum depth of 500mm to break up surface compaction before any soil material is spread. The developer should give the Planning Authority notice of an intention to carry out this operation. All large stones and boulders, wire rope and other foreign material arising should be removed. Special attention should be given to areas of excessive compaction such as haul roads where deeper ripping may be necessary.
16. The Developer should be responsible for providing all necessary training of operatives and site supervision by suitably qualified personnel to ensure that the soil replacement operation is carried out in the approved manner.
17. Prior to the commencement of spreading soil, all stones, boulders or foreign objects likely to impede normal agricultural cultivations should be removed from that area.
18. The soil material set aside for use in any agricultural restoration should be spread uniformly in the correct sequence (subsoil followed by topsoil) over the ripped base material, and should be rooted and

scarified to full depth without causing mixing between different soil layers. The reinstated agricultural soil profile should be total 450mm thickness overlying prepared and free draining natural stony base material, and should consist of 250mm topsoil and 200mm subsoil derived from the soil stripping operation. This soil profile should meet the technical requirements of the identified Agricultural Land Classification Grade on restoration.

19. All base material ripping, soil spreading and cultivation operations should be carried out in such a manner as to minimise compaction and achieve unimpeded drainage down through the soil profile.
20. Any part of the site restored for agricultural purposes which is affected by localised settlement that adversely affects the agricultural after use should be re-graded including the re-construction of the soil profile to approved specification.
21. Following restoration of the soil materials, the land will be cultivated, seeded and managed appropriately for a minimum of a year and until agreed with the Local Planning Authority that the land meets satisfactory requirements.

Conditions during construction

1

2

3

4

5

6

Conditions as construction proceeds

Commencement

Mid construction

Near completion

APPENDIX 2

AAH consultants

LANDSCAPE AND VISUAL REVIEW

OF THE DEVELOPMENT CONSENT ORDER (DCO) APPLICATION

FOR THE GATE BURTON SOLAR PROJECT

FOR

LINCOLNSHIRE COUNTY COUNCIL

July 2023

Landscape and Visual Review

Quality Assurance – Approval Status

Version	Date	Prepared by	Checked by	Approved by	Version Details
1	28/06/2023	Oliver Brown	Kevin Gillespie	Oliver Brown	Initial Draft
2	29/06/2023	Oliver Brown	Paul Booth	Oliver Brown	Issued for Proofing
3	29/06/2023	Oliver Brown	Kevin Gillespie	Oliver Brown	Issued for comment
4	10/07/2023	Oliver Brown	Kevin Gillespie	Oliver Brown	Issued for examination

Landscape and Visual Review

Contents

1.0 Introduction 4

2.0 Presentation of the LVIA 8

3.0 Methodology 10

4.0 Appraisal of Landscape Baseline and Effects 13

5.0 Appraisal of Visual Baseline and Effects 17

6.0 Cumulative Effects 23

7.0 Mitigation and Design 26

8.0 Conclusions and Recommendations 28

Appendices:

Appendix A: Previous AAH Consultation documents:

- AAH TM01 Viewpoint Discussion 08/03/22
- AAH TM02 Visual Amenity: Viewpoint Comments 24/03/22
- AAH TM03 PEIR Landscape and Visual Comments 02/08/22

Appendix B: Landscape Institute Technical Guidance Note 1/20 (10 Jan 2020): *Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs).*

1.0 Introduction

Purpose of the Landscape and Visual Review

1.1 AAH Consultants (**AAH**) has been commissioned to prepare a review of the Landscape and Visual elements of the Development Consent Order (**DCO**) Application for the Gate Burton Solar Project (the '**Development'**), submitted to the Planning Inspectorate in February 2022, on behalf of Lincolnshire County Council (**LCC**). This follows on from AAH providing landscape and visual consultation with the developer and design team on behalf of LCC at the Pre-Application stage of the project, with AAH correspondence (in the format of Technical Memos) provided within **Appendix A**.

1.2 The purpose of this report is to carry out an independent review of the landscape and visual elements of the DCO submission, with a focus on a review of the Landscape and Visual Impact Assessment (**LVIA**) chapter of the Environmental Statement (**ES**), which is based on the guidance provided within the Landscape Institute *Technical Guidance Note 1/20 (10 Jan 2020): Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)*, which is included within **Appendix B** for reference.

1.3 This report will be utilised to inform and guide LCC input into further stages of work through the Examination of the application for a DCO for the Development, which is a Nationally Significant Infrastructure Project (**NSIP**). This is likely to include input into Local Impact Reports (**LIR**) and Statements of Common Ground (**SoCG**), as well as formal requests for information or responses to questions that may be required through the Examination or at any associated hearings.

About AAH Planning Consultants and The Author

1.4 AAH Consultants comprises professional and accredited individuals. Our consultants are chartered members of the Landscape Institute (LI) and the Royal Town Planning Institute (RTPI).

1.5 This review has been prepared by Oliver Brown, who is a Chartered Landscape Architect within AAH with over 20 years' experience in landscape design and assessment.

Relevant Documents

1.6 The Landscape and Visual review is based on the following documents (including sub-appendices) submitted to the Planning Inspectorate, which are available at:

https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/gate-burton-energy-park/

- Environmental Statement Chapter 10 - Landscape and Visual Amenity;
- Chapter 10 Appendices:
  - Appendix 10-A: LVIA Legislation and Planning
  - Appendix 10-B: LVIA Methodology
  - Appendix 10-C: Landscape Baseline
  - Appendix 10-D: Landscape Assessment
  - Appendix 10-E: Visual Baseline
  - Appendix 10-F: Visual Assessment
  - Appendix 10-G: Residential Visual Amenity Survey
  - Appendix 10-H: Landscape and Visual Cumulative Effects
  - Appendix 10-I: Arboricultural Impact Assessment (Part 1 of 2)
  - Appendix 10-I: Arboricultural Impact Assessment (Part 2 of 2)
  - Appendix 10-J: Lincolnshire County Council Consultation Meeting Notes
- Chapter 10 Figures:
  - Figure 10-1: Study Area
  - Figure 10-2: Topography
  - Figure 10-3: Public Rights of Way – Overview
  - Figure 10-4: National Character Areas
  - Figure 10-5: Regional Landscape Character Areas
  - Figure 10-6: County and District Landscape Character Areas
  - Figure 10-7: Areas of Great Landscape Value
  - Figure 10-8: Local Landscape Values
  - Figure 10-9A: Zone of Theoretical Visibility (Bare Earth) - All Features
  - Figure 10-9B: Zone of Theoretical Visibility (Bare Earth) - Solar Panels
  - Figure 10-9C: Zone of Theoretical Variability (Bare Earth) - Substation / Battery Storage
  - Figure 10-10A: Zone of Theoretical Visibility (With Surface Features) - All Features
  - Figure 10-10B: Zone of Theoretical Visibility (With Surface Features) - Solar Panels
  - Figure 10-10C: Zone of Theoretical Visibility (With Surface Features) - Substation / Battery Storage
  - Figure 10-11: Viewpoint Locations on OS Mapping
  - Figure 10-12: Viewpoint Locations on Aerial Photography
  - Figure 10-13: Cumulative Zone of Theoretical Visibility (with Surface Features) - Gate Burton with Cottam Solar Farm
  - Figure 10-14: Cumulative Zone of Theoretical Visibility (with Surface Features) - Gate Burton with West Burton Solar Farm
  - Figure 10-15: Cumulative Zone of Theoretical Visibility (with Surface Features) - Gate Burton with Tillbridge Solar Farm
  - Figure 10-16: Photosheets - Viewpoints 1-23
  - Figure 10-17: Photosheets - Cumulative C1-C5
  - Figure 10-18: Photosheets - LCC1-10
  - Figure 10-19: Residential Viewpoint Locations on Aerial Photography
  - Figure 10-20: Photosheets Residential Visual Amenity Survey
  - Figure 10-21: Vegetation Removal

- Figure 10-22: Advanced Planting
- Figure 10-23: Outline Landscape Masterplan

The Landscape and Visual chapter was read, and is assessed, in conjunction with the following documents;

- Planning, Design and Access Statement
- Outline Design Principles
- Mitigation Schedule
- Environmental Statement Chapter 1 - Introduction
- Environmental Statement Chapter 2 - The Scheme
- Environmental Statement Chapter 3 - Alternatives and Design Evolution
- Environmental Statement Chapter 4 - Consultation
- Environmental Statement Chapter 5 - Environmental Impact Assessment Methodology
- Appendix 13-D: Transport Assessment
- Appendix 15-D: Glint and Glare Assessment
- TPO Impact/Removal Plans and Important Hedgerows Location Plans
- Outline Landscape and Ecological Management Plan
- Layout plans and ES figures:
  - Figure 1-1: Scheme Location
  - Figure 1-2: Scheme Boundary
  - Figure 2-1a: Environmental Constraints
  - Figure 2-1b: Environmental Constraints
  - Figure 2-2: Public Rights of Way (PRoW)
  - Figure 2-3: Substation Arrangement
  - Figure 2-4: Indicative Site Layout Plan
  - Figure 2-5: Grid Connection Access Locations and Construction Compounds
  - Figure 3-5: Landscape Designations, Ecological Designations and Heritage Designations
  - Figure 13-3: Heavy Goods Vehicle (HGV) Routing
  - Figure 13-6: Abnormal Load Routing

Previous Consultation

1.7 As part of the DCO process as stipulated by *The Planning Act 2008* (**PA2008***)*, AAH have carried out pre-application landscape and visual consultation with the developer and relevant members of their design team, on behalf of LCC, over approximately a 12-month period. This has included discussion and consultation on:

- Expectations of the LVIA, including content and reflection of current best practice and guidance
- LVIA Methodology;
- ZTV parameters;
- Study Area extents (distance);
- Viewpoint quantity and locations;

- Accurate Visual Representations (AVRs), including the quantity and location, as well as type and Level.
- Mitigation Measures/Landscape Scheme/Site Layout;
- Cumulative landscape and visual effects, including identification of sites/projects; and
- Residential Visual Amenity Assessment (RVAA) if there are residential properties with receptors likely to experience significant effects to their visual amenity.

1.8 Section 10.2 of the LVIA summarises consultation carried out, and for additional landscape and visual matters, AAH have subsequently issued three Technical Memos summarising comments and consultation through the Pre-application period, including a focus on proposed viewpoints and review of the Preliminary Environmental Information Report (**PEIR**). For reference, the AAH Technical Memos from the Pre-Application stage are included within **Appendix A**.

2.0 Presentation of the LVIA

The following section provides a review of the presentation of the LVIA, based on the following criteria (where applicable):

- *Is the LVIA appropriate and in proportion to the scale and nature of the proposed development;*
- *Are findings of the assessment clearly set out and readily understood;*
- *Is there clear and comprehensive communication of the assessment, in text, tables and illustrations;*
- *Are the graphics fit for purpose and compliant with other relevant guidance and standards; and*
- *Are landscape and visual effects considered separately;*
- *Are receptors and all likely effects comprehensively identified;*
- *Does the LVIA display clarity and transparency in its reasoning, the basis for its findings and conclusions; and*
- *Is there a clear and concise summation of the effects of the proposals.*

LVIA Chapter

2.1 The LVIA and associated figures, appendices and documents provide a thorough analysis of landscape and visual effects of the Development, and the level of information and detail is appropriate for the scale and type of development. The assessment is detailed and laid out in a logical manner, and the process of assessment is thorough and well explained. It has been carried out to best practice and guidance, primarily the *Guidelines for Landscape and Visual Impact Assessment (GLVIA3)* by the *Landscape Institute*, by a team of competent Chartered Landscape Architects.

2.2 The LVIA clearly draws a distinction between **landscape effects** and **visual effects**, with the main chapter focussing on likely **'significant'** effects (section 10.1.8 clarifies *major* and *moderate* effects generally being considered 'significant'), with *significance* being defined within the *Definitions of Frequently Used Terms* within the *Glossary and Table of Contents*

Document Reference: EN010131/APP/3.1 as: *"A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic."*

2.3 The LVIA presents an assessment of a 'worst case' scenario of the Development, based on design parameters presented in *Chapter 2: The Scheme, Document Reference: EN010131/APP/3.1*. Section 10.4.1 of the LVIA clarifies the scheme parameters that are being assessed, which aligns with an assessment of 'worst case'. However, if proposed mitigation areas and existing retained vegetation proposals are changed in later, detailed design stages, the findings of the LVIA are likely to also change. Landscape mitigation and tree and hedgerow retention and protection needs to be clarified and clearly secured as the assessment relies heavily upon landscape mitigation and retention of existing vegetation to mitigate effects.

2.4 The LVIA assesses landscape and visual effects at four main phases: **construction; year 1, year 15** and **decommissioning**. These phases are detailed within the section of the LVIA on (assumed) Assessment Scenarios (Sections 10.4.10 to 10.4.15 of the LVIA). The LVIA considers the Development in isolation, but also **cumulatively** with similar type and scale schemes in the local area (notably, Cottam Solar, West Burton Solar and Tillbridge Solar).

LVIA Appendices

2.5 The Appendices produced as part of the LVIA provide very detailed supporting information relating to the assessment. The appendices are clearly laid out and easy to follow and locate pertinent detailed information relating to the main chapter. The appendices are listed within section 10.1.7 of the LVIA, and are referenced throughout the report to support the findings and provide additional information.

LVIA Figures

2.6 The Figures produced as part of the LVIA are appropriate in the level of detail provided and clarity of information presented. However, some figures are still difficult to accurately read due to the scale of the Site and subsequent scale of the base mapping and information presented. The figures are clearly listed within section 10.1.6 of the LVIA, and are referenced throughout the report to support the findings.

2.7 **Figures 10-10 and 10-11:** LCC VP02 and LCC VP03 appear to be incorrectly located.

3.0 Methodology and Scope

The following section provides a review of the LVIA Methodology based on the following criteria (where applicable):

- *Has the LVIA been prepared by 'competent experts';*
- *Is the methodology in accordance with relevant guidance and meets the requirements of the relevant Regulations;*
- *Does the methodology and scope of the LVIA meet the requirements agreed in discussions at the pre-application stage during scoping and consultation;*
- *Has the methodology been followed in the assessment consistently;*
- *Are the levels of effect clearly defined, and have thresholds and approach to judging significance been clearly defined;*
- *Is detail about various development stages provided and appropriately assessed;*
- *Have cumulative landscape and visual effects been addressed.*

LVIA Methodology

3.1 The LVIA Methodology is presented in Section 10.6 of the LVIA and *Appendix 10-B: LVIA Methodology Document Reference: EN010131/APP/3.3*. It begins by reiterating the compliance with GVLIA3 guidance in assessing both **landscape effects** and **visual effects** as interrelated but separate components. Reference is made in section 10.2.5 of *Appendix 10-B* to industry best practice, including GVLIA3 and LI technical guidance notes.

3.2 The process and stages of assessment are clearly presented, including a baseline assessment, the detailing and review of the design, assessment of sensitivity (by assessing value and susceptibility), an assessment of magnitude of impact (in relation to size, scale, geographical extent, duration and reversibility) of the development on the baseline conditions, and a determination the significance of effects for the phases of the scheme (construction, year 1, year 15 and decommissioning).

3.3 The study area selection is explained in detail within Section 10.5 pf the LVIA and Sections 10.3.1 to 10.3.3 of *Appendix 10-B.* The radius of the study area ("*approximately 2 kilometres (km) around the Order limits of the Grid Connection Corridor, 3km west of the Order limits*

and 5km to the north, east and south") is justified and appropriate. A 'Wider Study Area' has also been considered (up to 10km) beyond the main Study Area to include long distance views to the east, associated with the rising land of the ridge AGLV.

3.4 The baseline conditions have been determined following a mix of desk and field studies alongside consultation with appropriate consultees. Desk research has included the prevailing policy framework and fieldwork carried out by qualified (assumed chartered) and experienced landscape architects.

3.5 The methodology is clear, and sections 10.3.21 and 10.3.29 of *Appendix 10-B* clarify how landscape and visual sensitivity is determined (by combining judgements on value and susceptibility). Tables provide criteria for assessment of value, and susceptibility, and subsequently how these have been combined to provide a judgement on sensitivity.

3.6 Tables 7 and 8 of *Appendix 10-B* provide clear indicative criteria of the assessment of magnitude of landscape and visual effects. Table 9 of *Appendix 10-B* provides a matrix to guide the determination of significance of landscape and visual effects, by combining the sensitivity of the receptor with magnitude of change. The utilisation of professional judgement is promoted within the methodology, should an effect be different to that presented within Table 9. Significant effects are generally identified as major and moderate, which is consistent with accepted practice. The methodology confirms that significant effects can be *adverse* or *beneficial*, and that effects assessed as *minor, negligible and neutral* are 'not significant'.

3.7 The assessment methodology has been carried through into the main assessment and used consistently.

ZTV Methodology

3.8 The process of modelling Zones of Theoretical Visibility (ZTVs) is presented within section 10.9 of *Appendix 10-B*. However, it is not explicit in the methodology to what parameters the proposals have been modelled to. Section 10.4.4 of the LVIA chapter identifies that photomontages have been presented to the maximum allowed parameter heights, therefore it has been assumed that the ZTV is generated upon the maximum parameters provided within *Chapter 2: The Scheme, Document Reference: EN010131/APP/3.1,* as this would provide a 'worst case' ZTV, however this needs to be clarified.

Visualisation Methodology

3.9 The process of delivering visualisations is presented within section 10.10 of *Appendix 10-B*, which states that they were prepared in accordance with the Landscape Institute *TGN 06/19 Visual Representation of Development Proposals*. However, it is not explicit in the methodology to what parameters the proposals have been modelled to. Section 10.4.1 of the LVIA chapter identifies that photomontages have been presented to the maximum allowed parameter heights, therefore it has been assumed that the proposals modelled and presented on visualisations are generated upon the maximum parameters provided within *Chapter 2: The Scheme, Document Reference: EN010131/APP/3.1,* as this would provide a 'worst case' visualisation, however this needs to be clarified.

4.0 Appraisal of Landscape Baseline and Effects

The following section provides a review of the Landscape Baseline and Effects, based on the following criteria (where applicable):

- *Has the methodology been followed in the landscape assessment;*
- *Are all landscape receptors and all likely effects comprehensively identified and assessed;*
- *Has the value and susceptibility of landscape resources been appropriately addressed and at appropriate scales (e.g., site, local, regional, and national);*
- *Is there a clear and concise summation of the landscape effects of the proposals; and*
- *Are potential cross-over topics, such as heritage or ecology, addressed.*

Landscape Baseline

4.1 The Landscape Baseline is considered in section 10.7 of the LVIA, and Figure 1.1 confirms the Scheme Location and Order limits, covering 824 hectares of predominantly agricultural land, which includes 652 hectares for the Solar and Energy Storage Park and 172 hectares for the Grid Connection Corridor.

4.2 The baseline follows the LVIA methodology and begins by describing the underlying conditions, and identifying, characteristics and elements that the Site and study area comprises, including: Landform and Hydrology, Land Use and Settlement, Movement and Connectivity, Tranquillity, Vegetation Patterns and Landscape Designations.

4.3 The LVIA acknowledges the rural and tranquil character of the Site and study area, however also notes the industrialised influence of nearby power stations west across the River Trent. Section 10.7.21 notes a lack of sense of remoteness or wildness across the Site or study area, however while this is accepted for the majority of the area, there are some isolated areas that display these characteristics, located to the north west of the Site within the AGLV: specifically, around Park Plantation and PROW along Knai/44/2 which have a character and perception very different than the surrounding more open landscape.

4.4 The baseline landscape character identified within published character assessments is considered in detail from section 10.7.32 to 10.7.53, which covers a variety of scales from National Character Areas to District Level assessment. However, as these are at a large scale,

and as aligned with guidance within GLVIA3 and a request at the pre-application stage, more detailed, or fine grain, assessments have been carried out as part of the LVIA. Subsequently, a Local Landscape Character Assessment has been carried out to identify local landscape character areas, which is summarised within sections 10.7.54 to 10.7.56 of the LVIA. The justification for a finer grained landscape character assessment is also provided within sections 10.7.54 and 10.7.55.

4.5 This process resulted in twenty-two Landscape Character Areas at varying scales that were identified as landscape receptors to assess the effects of the Development. These include: nine Regional Character Areas (from published character assessments) and thirteen Local Character Areas (from desktop and fieldwork as part of the LVIA).

4.6 However, the locally designated Area of Great Landscape Value (AGLV), within the western section of the Site, has not been identified as a receptor in its own right within the baseline, having been taken into account when defining the value of character areas within the assessment. We would expect this local designation would increase the value and susceptibility of landscape character within these areas. However, it is noted that information regarding the designation of the AGLV within West Lindsey has been difficult to obtain, and an evidence base for the designation is not readily available. If this was able to be obtained from West Lindsey District Council (WLDC) this would assist in the assessment process to understand what the elements are that make up the 'distinctive value'.

4.7 Further detail of the landscape baseline is provided within *Appendix 10-C: Landscape Baseline Document Reference: EN010131/APP/3.3*.

Landscape Assessment

4.8 The Landscape Assessment is detailed within *Appendix 10-D Landscape Assessment Document Reference: EN010131/APP/3.3*, which includes a clear assessment of Value and Susceptibility, and subsequently the Sensitivity of landscape receptors, which is aligned with the criteria provided within the methodology. The landscape assessment is summarised within section 10.9 of the LVIA, with residual landscape effects (following the implementation of mitigation) summarised within section 10.11 of the LVIA.

4.9 As agreed at the pre-application stage, the national character areas have not been assessed and used for context only. In line with the methodology, the assessment of the landscape character areas, or landscape receptors, progresses from regional and local and finer grain.

4.10 The baseline identified a variety of sensitivities of landscape receptors, with no character areas at a regional scale identified as being of high sensitivity, however at a Landscape Character Types (LCT) Group 3A: Floodplain Valleys and Group 4A: Unwooded Vales from *East Midlands Regional Landscape Character Assessment 2009*, and Trent Valley Landscape Character Area (LCA) from the *Nottinghamshire County Landscape Character Assessment,* have been assessed as being of a medium sensitivity.

4.11 At a local level, Local Landscape Character Area 01: Gate Burton Estate has been identified as being of a high sensitivity. LLCA 02: Ancient Woodland Ridge, LLCA 05 - Somerby and Knaith Woodlands, LLCA 06 - Clay Farmlands, and LLCA 11 - Rampton Fringe and Hawk Hills have been assessed as being of a medium sensitivity. All other landscape receptors are assessed as being of low sensitivity.

4.12 The LVIA identifies significant landscape and visual effects at the four phases of **construction, operation (year 1), operation (year 15),** and **decommissioning**. The following significant residual effects are identified in the LVIA:

- At **Construction** the following landscape receptors were assessed as having significant effects:
    - LLCA 02 – Ancient Woodland Ridge (**Major** Significant (temporary))
    - LLCA 06 – Clay Farmlands (**Moderate** Significant (temporary))
    - LLCA 10 – Cottam Plain (**Moderate** Significant (temporary))
- At **Operation (Year 1)** the following landscape receptors were assessed as having significant effects:
    - LLCA 02 – Ancient Woodland Ridge (**Major** Significant (temporary))
    - LLCA 06 – Clay Farmlands (**Moderate** Significant (temporary))
- At **Operation (Year 15)** the following receptors were assessed as having significant effects:
    - LLCA 02 – Ancient Woodland Ridge (**Major** Significant (temporary))
    - LLCA 06 – Clay Farmlands (**Moderate** Significant (temporary))

4.13 These 'significant' effects represent effects on local character areas that fall within the Site. At year 15 **LLCA 02**, which accounts for the majority of the land within the redline west of the railway line, has been assessed as having a **Major Adverse residual** effect even when mitigation planting has established. Similarly, **LLCA 06**, which accounts for a large area of the

south and eastern site area, and is a moderately sensitive landscape, has been assessed as having a **Moderate Adverse residual** effect when mitigation planting has established.

4.14 The effects to these landscape receptors comes about through a "*Large alteration to the LLCA*", having partial or large alterations over wide or extensive areas of landscape receptors. LLCA 02 has therefore gone through a change "*of more than local significance"* or would be *"in breach of recognised acceptability, legislation, policy or standards".*

4.15 No significant effects were identified in the LVIA on character areas at a larger, regional, scale, which is felt is somewhat underplaying effects on the regional character assessment as the development will change the land use over a large area and also has the potential to alter unique characteristics of a character area, albeit these changes would be direct at a local scale, however these would likely be of more than local significance (potentially at a regional scale due to scale and extent).

4.16 Access and the wider highways elements of the scheme do not appear to be fully considered in the LVIA beyond increased traffic during construction and decommissioning phases, despite the potential adverse effects on the rural landscape these may have, including potential vegetation loss, urbanisation or visual amenity through any required improvements. Because of this, the construction landscape effects may be underestimated within the LVIA through the impact of, or loss of, vegetation. However, it should be noted that access and highways works have been discussed with the developer team post submission, and additional information on wider highways works and vegetation removal is being investigated to clarify this through the examination process. We strongly recommend limiting vegetation loss along site boundaries for access or sight lines, or along construction access routes, as this has the potential to change the character of the local landscape beyond the limits of the development.

5.0 Appraisal of Visual Baseline and Effects

The following section provides a review of the Visual Baseline and Effects, based on the following criteria:

- *Has the methodology been followed in the visual assessment;*
- *Are all visual receptors and all likely effects comprehensively identified and assessed;*
- *Has the value and susceptibility of visual resources been appropriately addressed;*
- *Is there a clear and concise summation of the visual effects of the proposals;*
- *Are the viewpoints that have been used appropriate and meet the number, location and requirements agreed in discussions at the pre-application stage during scoping and consultation; and*
- *Are the Visualisations/Photomontages that have been used appropriate and meet the number, location and requirements agreed in discussions at the pre-application stage during scoping and consultation.*

Visual Baseline

5.1 The Landscape Baseline is considered in section 10.7 of the LVIA, which identifies in section 10.7.57 that: *"The assessment of visual effects is structured around the identification of visual receptors within the study area.".* This commenced with the Zone of Theoretical Visibility (ZTV) analysis, used to assist and identify potentially sensitive receptors. Figures 10-9A to 10-10C provide the ZTV information (as listed in section 10.7.58), both as bare earth and with surface features.

5.2 Following fieldwork, utilising the information presented within the ZTVs: *"Visual receptors likely to experience views of the construction, operation or decommissioning of the Scheme were identified through interrogation of the ZTVs and fieldwork".* Viewpoints were subsequently selected to represent views from these receptors. The selection of viewpoints formed part of the pre-application consultation and includes locations recommended as part of this process.

5.3 Table 10-5 clearly lays out the identified receptor groups (e.g. residents) and subsequent associated representative viewpoints. Table 10-6 then goes on to clearly summarise the

value of the view, susceptibility to change, and resultant sensitivity of each receptor and subsequently each representative viewpoint. Seven receptor groups/viewpoints have been assessed as being of high sensitivity:

- Recreational users, visitors: **viewpoint 7**;
- Vehicle users, residents along Kexby Lane: **viewpoint 10;**
- Pedestrians along Kexby Lane / Willingham Road Residents along Willingham Road / Upton Road at eastern extents of Knaith Park Vehicle users of Kexby Lane: **viewpoint 11**;
- People viewing from Gate Burton Estate and residents of Gate Burton Estate: **viewpoint 15;**
- Recreational users / visitors to designated Tillbridge Lane Viewpoint: **viewpoint C4;**
- Vehicle users and Recreational users along Station Road, Residents: **viewpoint LCC5;** and
- Recreational users of PRoW NT/Sturton Le Steeple/FP8, Residents located at the eastern end of Littleborough Road: **viewpoint LCC10.**

5.4 The assessment of value, susceptibility and subsequent sensitivity of users of Recreational users of PRoW LL/Knai/44/2: **viewpoint LCC8** should be interrogated. While the view towards the Site is not particularly noteworthy, the sense of remoteness and tranquillity from this location afforded by walking along the edge of the Park Plantation looking across an open field is of value, and receptors are likely to be more susceptible to changes from this location due to being there for the experience, and subsequently would be more sensitive. This is exacerbated by this area being a very different and more intimate character than the majority of locations within the study area, and likely receptors would seek this location out for recreational activities.

5.5 The baseline follows the LVIA methodology and considers the consultation undertaken at the pre-application stage. Further detail of the visual baseline is provided within *Appendix 10-E: Visual Baseline Document Reference: EN010131/APP/3.3,* and a clear summary of the visual baseline is provided within sections 10.7.86 to 10.7.121 of the LVIA.

Visualisations/Photomontages

5.6 Viewpoints representative of the identified visual receptors were identified. These were discussed and agreed upon through consultation (refer **Appendix A**). The baseline process

resulted in identifying 38 viewpoints, including cumulative viewpoints, to represent the views of the visual receptors. Figures 10-16 to 10-18 illustrate these views.

5.7 Photographs have been prepared as Type 1 (annotated photographs) and visualisations as Type 3 (photomontages) and presented at A1. Section 10.1.6 states that un-compressed images are available on request, and would suggest these are made available if/when required for the examination to assist in clarity on some of the views.

Visual Assessment

5.8 The Visual Assessment is detailed within *Appendix 10-F: Visual Assessment Document Reference: EN010131/APP/3.3*, including an assessment of Value and Susceptibility, and subsequently the Sensitivity of visual receptors and viewpoints, which is aligned with the criteria provided within the methodology. The visual assessment is summarised within section 10.9, with residual visual effects (following the implementation of mitigation) summarised within section 10.11 of the LVIA.

5.9 The LVIA identifies significant landscape and visual effects at the four phases of **construction, operation (year 1), operation (year 15),** and **decommissioning**. The following significant residual effects are identified in the LVIA (summarised in tables 10-7, 10-8, 10-9, and 10-11 within the LVIA):

- At **Construction**:
    - Construction activities are assessed as resulting in **Moderate adverse** visual effects for residential, recreational, and vehicle users, predominantly from close range views facing the Site.
    - Users of the A156, represented by Viewpoint 13, are assessed as having views of activity resulting in **Major adverse** visual effects.
    - These Moderate and Major adverse effects are considered to be significant and would result from the introduction of construction activity at close range across a wide extent of a view.
- At **Operation (Year 1)**:
    - Operation phase effects (year 1) are assessed as resulting in Moderate adverse visual effects for residential, recreational, and vehicle users, predominantly from close range views facing the Order limits.
    - Several receptors and viewpoints are assed as resulting in Major adverse visual effects, as a worst case, however, subject to the establishment of advanced planting, these effects may be reduced to minor or moderate.

- These Moderate and Major adverse effects are considered to be significant and would result from the Development at close range across a wide extent of a view.

- At **Operation (Year 15)**:

  - Operation phase effects (year 1) are assessed as resulting in a small number of Moderate adverse visual effects.

  - These effects are considered to be significant and would result from the introduction of the development at close range across a wide extent of a view.

  - The receptors and viewpoints with remaining significant effects (based on the LVIA findings) are:

    - Outdoor workers / Farmers (**Viewpoint 2**);
    - Vehicle users, Outdoor workers / Farmers, Recreational users (**Viewpoint 8**):
    - Vehicle Users, Residents (**Viewpoint 17**).

5.10 The views and visual receptors with significant effects represent close range views of the development. However, fifteen sensitive receptor groups were assessed as having significant effects prior to any mitigation planting maturing (at operation year 1), along the southern extents, along with three receptors experiencing significant residual effects at year 15 along the southern site extents. This suggests a potential over reliance upon mitigation planting just to screen the proposals without full attention to the potential impact of screening on this landscape.

5.11 The following viewpoints (presented on Figures 10-16 to 10-18) are recommended to be reviewed as the assessment presented within the LVIA potentially underplays the Magnitude of visual effect, and subsequently Significance of effect:

- **Viewpoint 1:** The development is a prominent part of the view, and while mitigation planting to the right of the view provides screening, panels are conspicuous to the centre of the view. The screening of half the panels is unlikely to drop the magnitude of effect from High (at year 1) to Medium (year 15).

- **Viewpoint 4:** The magnitude of effect is highly dependent upon the establishment of advanced planting. The height of new planting up to 3m seems unlikely with an assumed two to three years growth prior to construction starting or operation year 1.

- **Viewpoint 10-1:** The magnitude of effect is highly dependent upon the establishment of advanced planting. The height of new planting up to 3m seems unlikely with an assumed two to three years growth prior to construction starting or operation year 1.

- **Viewpoint 13:** The view shows complete vegetation removal along the A156 and introduction of an access into the Development opening up views of the foreground and midground. This is a large change in view from a local rural road. Unclear as to why effects would reduce after construction.

- **Viewpoint 16:** Development only visible to peripheries of the image – view would have benefitted from rotating to the right or addition of an extra sheet to illustrate extent of views of Development as it is not clear if these are extensive to the right of view.

- **Viewpoint 18:** The magnitude of effect is highly dependent upon the establishment of advanced planting. The height of new planting up to 3.5m seems unlikely, with an assumed two to three years growth prior to construction starting or operation year 1. Vegetation growth/hedgerow management would screen views of panels, however at year 15 would shorten views which currently are across open landscape.

- **Viewpoint LCC VP02:** The view is closer to the Site than that agreed at the pre-application stage. If the view was further back from the Site, more of the development would be evident through the open boundary, and potentially effects likely be assessed as greater. The Image below is what was presented and discussed at meeting held on 10/11/2022 which would provide a clearer view:

- **Viewpoint LCC VP08:** The view of the Development would likely be clearer further west along PROW KNAI/44/2. Image of photography was not available at the meeting held with AECOM on 10/11/2022, and therefore was not able to be agreed.

5.12 Access and the wider highways elements of the scheme do not appear to be fully considered in the LVIA beyond increased traffic during construction and decommissioning phases, despite the potential adverse effects on views of the rural landscape these may have, including potential vegetation loss, urbanisation or visual amenity through any required improvements. Because of this, the construction visual effects may be underestimated within the LVIA through the impact of, or loss of, vegetation. However, access and highways

works have been discussed with the developer team post submission, and additional information on wider highways works and vegetation removal is being investigated to clarify this through the examination process. We recommend limiting vegetation loss along site boundaries for access or sight lines, or along construction access routes, as this has the potential to change the character of the local landscape beyond the limits of the development.

6.0 Appraisal of Cumulative Landscape and Visual Effects and Residential Visual Amenity Assessment

The following section provides a review of the cumulative effects and Residential Visual Amenity Assessment (RVAA), based on the following criteria:

- *Have cumulative landscape and visual effects been addressed;*
- *Are the RVAA and cumulative effects methodologies in accordance with relevant guidance and meet the requirements of the relevant Regulations;*
- *Does the methodology and scope of the assessment of cumulative effects and RVAA meet the requirements agreed in discussions at the pre-application stage during scoping and consultation;*
- *Has the methodology been followed consistently;*
- *Are residential and cumulative receptors and all likely effects comprehensively identified; and*
- *Are any residential properties (receptors) likely to experience significant effects to their visual amenity.*

Cumulative Methodology

6.1 Cumulative landscape effects are not covered within the landscape methodology (*Appendix 10-B)*, relying on the methodology provided within *Chapter 5: EIA Methodology*, which while not tailored to landscape and visual matters, does provide a logical approach to consider the Development alongside other Sites that have been identified.

6.2 Other schemes that are considered for the cumulative assessment are identified within *Chapter 16: Cumulative effects.* The identified schemes relevant to potential cumulative Landscape and Visual Amenity effects are identified within Chapter 16, and these are: Cottam Power Station Redevelopment, Tillbridge Solar Project, Cottam Solar Project and West Burton Solar Project. These schemes have been assessed cumulatively with the Development, both individually (with Gate Burton Solar Project) and all together, which is appropriate to understand how the local area may potentially change through the development of large scale solar over an extensive area.

Cumulative Landscape and Visual Effects

6.3 Regarding Cumulative effects (Cumulative landscape and visual effects are those that: "*result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments")*, the LVIA identifies that there will be adverse cumulative effects with those schemes identified to be included within the assessment:

a. Only **Minor** effects were identified at construction;
b. **Moderate** effects were identified at operation with the site and West Burton Solar;
c. **Moderate** effects were identified for the combined, West Burton Solar Project, Cottam Solar Project, Tillbridge Solar Farm and the Scheme.

6.4 The cumulative change to the landscape will be considerable, and the combination of two or more sites has the potential to change the local landscape character at a scale that would be "*of more than local significance"* or would be *"in breach of recognised acceptability, legislation, policy or standards*". The cumulative impact of the four adjacent NSIP scale solar schemes has the potential to affect the landscape at a regional scale through predominantly a change in land use: from arable to solar, creating what may be perceived as an 'energy landscape' as opposed to rural or agricultural one at present.

6.5 This is likely exacerbated when travelling through the area either along PROW or local roads, and the sequential effects of multiple large scale solar sites, which are spread over extensive, often fragmented redline boundaries, creates the perception of being surrounded by solar development. While no significant cumulative views have been identified in the LVIA, views do not have to be extensive and open to create the perception, and regular sequential glimpsed views would create a change to the experience of visual receptors as well as change the perception of character of an entire area.

Residential Visual Amenity

6.6 The methodology for assessing Residential Visual Amenity is outlined within Section 10.8 of the landscape methodology *Appendix 10-B: LVIA Methodology Document Reference: EN010131/APP/3.3.* This correctly references the Landscape Institute's Technical Guidance Note *2/19: 'Residential Visual Amenity Assessment,* which identifies that the Residential Visual Amenity Threshold (RVAT) is considered as to whether: *"the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity."*

6.7 Section 10.8.7 states: "…*the LVIA has not identified the likelihood of significant adverse effects at year 15 of operation on residents. As such the RVAT was not reached and therefore a RVAA has not been carried out*."

6.8 However, *Appendix 10-G: Residential Visual Amenity Survey Document Reference: EN010131/APP/3.3,* identifies that a *"residential visual amenity survey has been carried out in order to determine potential significant visual effects on residents".* This provides guidance for a Residential Visual Amenity Assessment (RVAA), and in Section 10.3 a Method of Survey is provided, showing detail on the four stage approach to assessment.

6.9 While a RVAA was identified as not being required following the LVIA not identifying any significant adverse effects at year 15 for residents, the findings of the initial three stages of assessment have been utilised to inform the layout mitigation in these areas.

7.0 Mitigation and Design

The following section provides a review of the Mitigation and Design, based on the following criteria:

- *Is there evidence of an iterative assessment-design process and it is clear that this has informed the site redline, layout and primary and secondary mitigation;*
- *How appropriate is the proposed mitigation;*
- *Are potential cross-over topics, such as heritage or ecology, addressed and incorporated within the mitigation; and*
- *Is the long-term management of existing and proposed vegetation properly addressed in any long term management plans to promote establishment.*

Evidence of Iterative Process

7.1 Mitigation proposals, described in the LVIA reference a series of documents within the DCO package. The masterplan has been presented as evolving through an iterative process, with the landscape and visual findings feeding back into the design process. However, there appears in places an over reliance upon planting just to screen proposals, without full attention to the potential impact of screening on this landscape. The LVIA and appendices do not go into detail about the level of care to ensure the design of mitigation enhances the physical landscape, or views from receptors, other than just screening the development.

7.2 The design has evolved and appears to have responded to the consultation process, there is clear evolution from the different stages of the masterplan. The mitigation has responded to the recommendations of the local landscape character area reports.

7.3 Section 10.8 of the LVIA describes the embedded mitigation measures of the scheme to, where practicable, avoid adverse effects on the landscape and views, and this process is described in more detail within *Chapter 3: Alternatives and Design Evolution Document Reference: EN010131/APP/3.1.*

Mitigation Measures

7.4 The *Outline Landscape and Ecology Management Plan Document Reference: EN010131/APP/7.10* provides information regarding the establishment and maintenance of

the planting associated with the Development (as shown on Figure 10-23: Outline Landscape Masterplan).

7.5 The success of the landscape mitigation to meet the objectives laid out in the management plan to integrate and screen proposals, promote conservation and protection of the environment and ecological and habitat diversity is highly dependent upon the successful management and maintenance of the new planting, as well as protection of exiting trees and hedgerows. The maintenance operations provide an initial overview of operations; however we would expect the management plan be developed further and also last well beyond the initial 5 year period, particularly if landscape and visual effects are being assessed at 15 years: the reduction in landscape and visual effects presented in the LVIA are based on the success of landscape mitigation. Similarly, any early planting should be secured and implemented at the earliest opportunity as effects are also reduced in the LVIA based upon the assumption these are in place and have established as planned.

7.6 Monitoring of the proposals is a key aspect of the mitigation plan and is something which needs further development to ensure there is robustness to deal with the challenging climatic conditions when it comes to establishing new plantings. The regular updating of the management plan will go some way to ensuring that is kept valid and can respond to issues and trends effectively. The updating every 5 years following the initial establishment period will also ensure that the management plan can adapt to varying conditions.

7.7 There is a potential over reliance within the LVIA upon planting to mitigate the visual effect of the development; the character of the area is relatively open, and too much planting without due care for location, simply to screen could have detrimental impacts. The PROW and local roads in the study area enjoy an open aspect across some areas of the study area, for example along Willingham Road at the southern Site extents where there are extensive long-range views north across the Site. Therefore, care needs to be taken to prevent the loss of this character through an overbearing set of mitigation proposals. It is noted the offsets proposed (summarised in Section 10.8.18 of the LVIA), and with careful design, will go some way to address the matter raised.

8.0 Conclusions and Recommendations

The following section provides an overall summary and conclusion on the suitability of the Landscape and Visual elements of the DCO Application. This includes the adequacy of the LVIA, reviewed in accordance with the Landscape Institute *Technical Guidance Note 1/20 (10 Jan 2020): Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)* and whether it is sufficient to support making an informed decision.

Finally, recommendations for further information to be sought are provided to assist in the Examination of the DCO Application.

Summary and Conclusions on the LVIA

8.1 The LVIA and the associated figures, appendices and documents provide a thorough analysis of the development and is appropriate to the scale and context of the Site and Development. The process of assessment is thorough and well explained in the volumes, which include a clear summary of findings and identification of significant effects on the landscape and visual baseline.

8.2 By reason of its mass and scale, the Development would lead to significant adverse effects on landscape character and visual amenity at all phases of the scheme (construction, operation year 1, operation year 15, and decommissioning). The Development has the potential to transform the local landscape by altering the character on a large scale. This landscape change also has the potential to affect wider landscape character, at a regional scale, by replacing large areas of agricultural or rural land with solar development, affecting the current openness, tranquillity and agricultural character that are identified as key defining characteristics of the area.

8.3 The cumulative landscape and visual effects of the Development will also bring about significant landscape and visual effects, particularly when assessed alongside the proposed Cottam, West Burton and Tillbridge Solar schemes. The mass and scale of these projects combined would lead to adverse effects on landscape character and visual amenity over an extensive area. The landscape character of the local, and potentially regional area, may be completely altered (albeit temporarily over a 40 to 60 year period), particularly when experienced sequentially while travelling through the landscape.

8.4 Tree and vegetation removal associated with the development, including wider highways improvements and access for construction, must be clarified through the examination

process, and subsequently any works (such as lopping or pruning), or removal to trees and hedgerows must be agreed prior to any works commencing. Prior to any construction activities, all tree and hedgerow protection methods associated with that phase of construction should also be clarified and subsequently agreed with the appropriate authority (in this case the local planning authority). This would be to BS:5837 Trees in Relation to Construction and any subsequent arboricultural method statements, again which should be approved by the appropriate authority. In particular this should ensure existing trees, and associated root protection areas, are suitable protected throughout the entire construction period. This would likely include areas within the order limits but away from construction activity as storage of materials or tracking over of plant will likely damage tree root protection areas.

8.5 While the submission includes landscape proposals (Figure 10-23 Outline Landscape Masterplan – 6 sheets), these are of a high level and would expect if the project proceeds that much more detailed plans to be submitted and subsequently agreed with the appropriate authority (in this case the local planning authority) prior to the commencement of any works. This would include clear detail of the areas of landscape mitigation, location and types of planting (species), as well as number, density and specification. The mitigation illustrated on Figure 10-23 Outline Landscape Masterplan has been utilised to assess the landscape and visual effects of the scheme, therefore we would expect any detailed landscape proposals consist of the area and extent shown on these plans as a minimum.

APPENDIX A

Previous AAH Consultation documents:

AAH TM01 Viewpoint Discussion 08/03/22

AAH TM02 Visual Amenity: Viewpoint Comments 24/03/22

AAH TM03 PEIR Landscape and Visual Comments 02/08/22

Technical Memorandum 1

Lincolnshire County Council, Gate Burton Solar Project

Landscape Meeting (Virtual): Viewpoint Discussion: Held 01 March 2022

A meeting was held on Tuesday 1st March 2022 over Microsoft Teams for the Gate Burton Energy Park to discuss Landscape Viewpoints. The meeting was attended by representatives from the development team (including consultants from AECOM), Lincolnshire County Council, Nottinghamshire County Council, West Lindsey District Council, Bassetlaw District Council, and AAH Consultants (providing landscape and visual advice and support to Lincolnshire County Council).

The meeting was held and led by representatives from AECOM, with the project landscape architect, Joerg Schulze, presenting an overview of the main landscape and visual aspects of the site and study area, and also providing a detailed walk through of the identified viewpoints. The following information was issued via email prior to the meeting:

- List of proposed Viewpoints;
- Viewpoint Maps 1-4;
- Viewpoint photography for viewpoints 1-20;
- Viewpoint photography for 5 cumulative viewpoints; and
- Viewpoint photography for 4 viewpoints focusing on the grid corridor connection options.

The purpose of the meeting was to discuss the: *"selected viewpoints with a view to getting agreement from the host authorities that the selected viewpoints are adequate for the project both in terms of the main site and the grid corridor connection options."*

Following the presentation, there was the opportunity for discussion on what was presented, with a focus on the viewpoint selections. It was requested that any comments be received by 8th March to assist with obtaining "winter views" (limited leaf cover). As stated by AAH Consultants and LCC in the meeting, it would not be possible to agree the final viewpoints at this stage, however we would be able to provide more broad brush comments, which we would follow up later in the month with more detailed information following site visits and further discussion with the developer.

AAH general comments on viewpoints and supporting information/figures are as follows:

- AAH are planning on carrying out an initial site visit to Gate Burton Solar week commencing 14th March. Following this, we will review the viewpoints and organise a follow up meeting with the developer's team;
- Could an updated ZTV be issued to LCC/AAH if available – it would be a useful set of information if this included the selected viewpoints, PROW and Roads marked on also. This would be ideally issued in good time prior to the 14th March to assist in our site work;
- Overall, in regards to viewpoints:
    - PROW look underrepresented in viewpoints, particularly the PROWs north of the Site: ***Knai/44/1*** and ***Upto/53/1***. Views from these locations would likely be required being within and adjacent to the site;
    - While we need to confirm on site, as an initial comment, the following PROW may also require a viewpoint, or a clear statement as to them being scoped out:
        - Group of PROW north of site including LEA/1054/1;

- LEA/513/1;
- Group of PROW East of site including KEXB/58/1;
- STOW/70/1
- MTON/69/1;
- PROW west of the River Trent; and
- Group of PROW South East of site including STOW/71/2.

- Is there visibility of the site from Littleborough, and if so we would recommend a viewpoint from this location due to heritage assets in this location.

As stated, AAH will provide more detailed feedback once we have carried out our necessary field and desktop work. While we appreciate the timings of obtaining winter views for photography, we do need to ensure we have time to properly review the information.

Also, following a recent meeting with the Cottam and West Burton teams, we have initially suggested a workshop between all the three sites in West Lindsey, which would allow for a discussion around cumulative views and impacts, as well as discussion of the main landscape and visual issues. The date and invitation for this will follow, and will likely be organised by LandPro (planners and landscape team on West Burton and Cottam).

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08 March 2022

AAH consultants

Technical Memorandum 2 (AAH TM02)

Lincolnshire County Council, Gate Burton Solar Project

Visual Amenity: Viewpoint Comments

Following the meeting held on Tuesday 1st March 2022 (refer AAH TM01) over Microsoft Teams to discuss Landscape Viewpoints, we have reviewed the information presented and provided by AECOM, including the Gate Burton Scoping Report, and subsequently attended site over the week commencing 14th March. We walked the Gate Burton Solar site and visited all the viewpoints proposed by AECOM. The proposed viewpoints were identified on the following information which was issued via email prior to the 1st March meeting:

- List of proposed Viewpoints;
- Viewpoint Maps 1-4;
- Viewpoint photography for viewpoints 1-20;
- Viewpoint photography for 5 cumulative viewpoints; and
- Viewpoint photography for 4 viewpoints focusing on the grid corridor connection options.

Following this, we have the following general comments and requests:

1. Could an updated ZTV be issued to LCC/AAH when available. While we appreciate a ZTV is a tool, and should not be relied upon to illustrate the full extent of potential visibility of a site or development proposals, it would assist in our understanding of wider visibility. This would be a particularly useful set of information if this included the selected viewpoints, PROW and Roads marked on also. It should also be clear as to the height, extent and location of any proposals that the ZTV has been generated upon;

2. The base maps used for the figures provided to date are not very clear or detailed. Could a 1:20,000 be utilised for further information which provides a more suitable scale;

3. Please could further details be provided about the on-site substation (paragraph 2.1.37 of the scoping report), including location, size/massing and height, including what features would be 11 metres in height. As at this stage we do not have this information, the location of this would likely have visual impacts that would require additional viewpoints beyond those initially identified;

4. Paragraph 2.2.6 of the scoping report identifies an offsite sub-station option at Cottam with an 11 metre high feature. Could the location, size/massing and height, including what features would be 11 metres in height, of this off site substation be provided. Again this would likely have visual impacts that would require additional viewpoints beyond those initially identified;

5. We do not feel we can provide more detailed feedback at this stage on the Grid Connection Corridors until further information is provided. However, at this point one option does not appear to be preferable to the others, and would expect the LVIA to provide a clear evaluation and likely impacts of any route;

6. Having visited site over the period of several days, we have observed that while many of the surrounding lanes and tracks within the study area are rural and remote in character and primarily used for motor vehicles and farm access, they are also well used by dog walkers, horse riders and leisure cyclists, and subsequently the assessment should consider this within the methodology. The presence of several well-tended benches and grass verges with swathes of spring bulb planting reinforce the local value of these networks beyond being road networks, which also provide suitable PROW connections for walkers improving the connectivity of the wider recreational footpath network.

The following comments are in regards to visibility of the site from specific receptors and viewpoints, and the plan attached to this memo should be referred to for these target notes:

A. **Additional viewpoint should be included from the eastern edge of Knaith, along Knaith Hill.** Photography should provide the most advantageous view of the site and proposed development;

B. **Additional viewpoints should be included from the PROWs north of the Site: *Knai/44/1, Knai/44/2*** and ***Upto/53/1***. These will be sensitive receptors with very close views, therefore views from these locations would be required within and adjacent to the site and photography should provide the most advantageous views of the site and proposed development;

C. **Additional viewpoint should be included from Upton Road looking south to the northern site boundary.** There is a clear gap in boundary vegetation at the junction with PROW Upto/53/1. Photography should provide the most advantageous views of the site and proposed development;

D. **Additional viewpoints should be included from along Padmoor Lane looking south/south west to the northern site boundary.** The hedgerow is low in some locations and there are several gaps, including field gates, that allow views to the site. Photography should provide the most advantageous views of the site and proposed development;

E. **Additional viewpoints should be included from along Stow/70/1 looking north/north west.** The hedgerow along the southern site boundary (Marton Road) is relatively low in some locations that allow views from this PROW to the site. Photography should provide the most advantageous views of the site and proposed development;

F. The following PROW have been identified as having *potential* views of the site and/or the proposed development. Therefore could a either a viewpoint be obtained or a clear statement provided as to them being reviewed and subsequently scoped out:
    1. Group of PROW north of site including Lea/1054/1;
    2. Lea/513/1;
    3. Group of PROW East of site between Kexby and Willingham by Stow including Kexb/58/1; and
    4. Group of PROW South East of site including Stow/71/2.

G. **Additional viewpoint should be included from along Mton/69/1 looking north/north east.** While there is a band of vegetation along the southern site boundary in this location, (Willingham Road) there may be potential glimpsed views from along this PROW to the site.

Photography should provide the most advantageous views of the site and proposed development;

H. Could a clear statement provided as to potential views from Littleborough and them being reviewed and subsequently scoped out. There are several heritage assets as well as PROW in this location and it is not clear if this location has been fully reviewed in regards to views of the site and development – if there are potential views of the site and/or proposed development, a viewpoint should be obtained from this location; and

I. Could a clear statement be provided as to potential views from the B1241 between Willingham by Stow and Normanby by Stow and them being reviewed and subsequently scoped out. The B1241 is referenced within para. 10.4.16 of the scoping report as having views of the site.

As stated, at this stage we do not have details on the location and appearance/extent of taller/larger elements that for part of the development which would likely have visual impacts that would require additional viewpoints beyond those initially identified.

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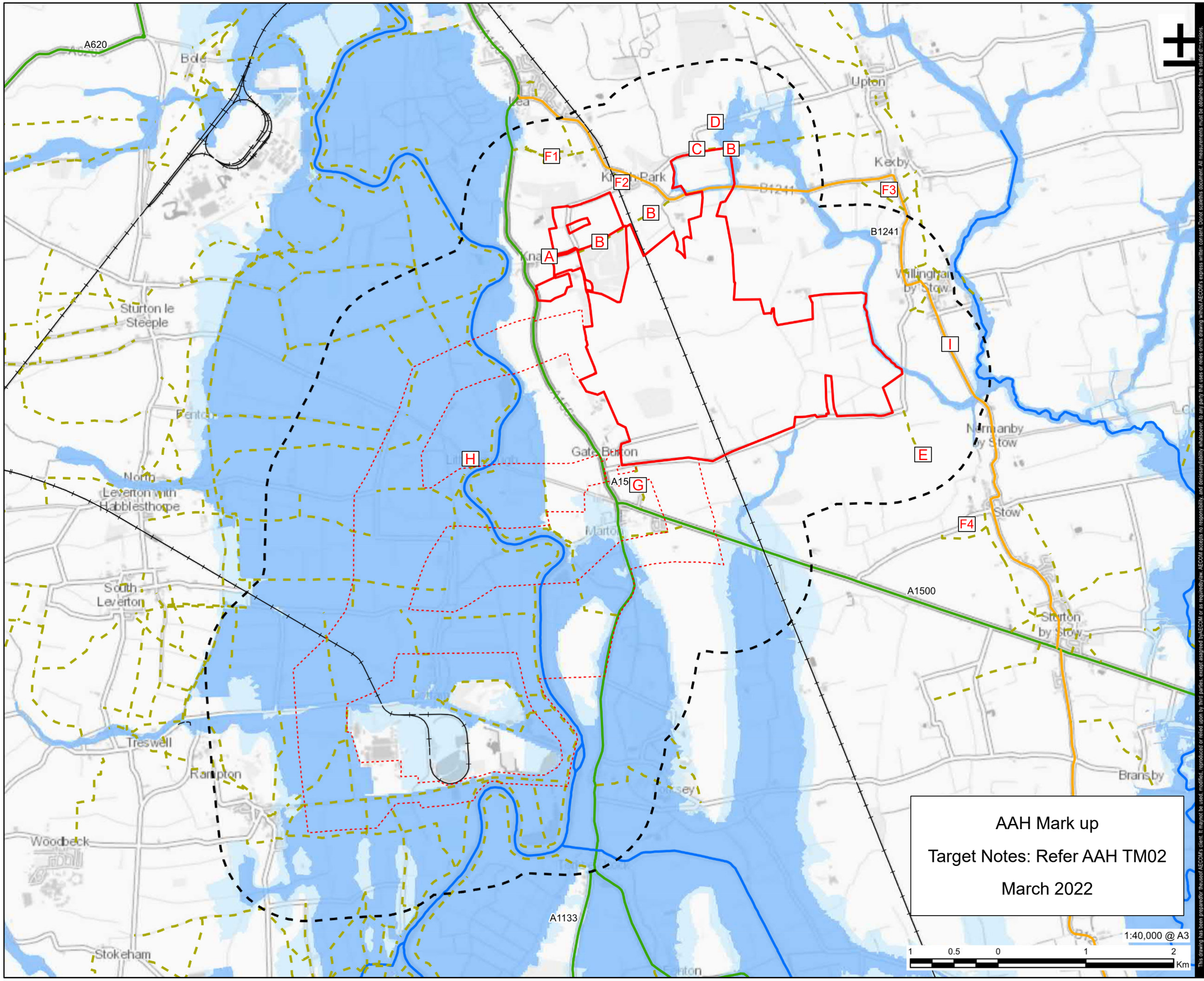
24 March 2022

Revision: 0 Drawn: VC Checked: DH Approved: WB Date: 2021-11-12

Filename: F:\Projects\Gate Burton Energy Park\02_Maps\SCH_Figure1_3b_ConstraintsPlan.mxd



AAH Mark up

Target Notes: Refer AAH TM02

March 2022

1:40,000 @ A3

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PROJECT

Gate Burton Energy Park

CLIENT

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LEGEND

- Solar PV Site
- Grid Connection Corridor Options
- 1km Buffer
- A Road B Road
- Main River
- Public Right of Way
- Railway
- Flood Zone 2
- Flood Zone 3

NOTES

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ISSUE PURPOSE

EIA Scoping Report

PROJECT NUMBER

60664324

FIGURE TITLE

Constraints Plan

FIGURE NUMBER

Figure 1-3b

Technical Memorandum 3 (AAH TM03)

Lincolnshire County Council, Gate Burton Energy Park: PEIR Landscape and Visual Comments

Introduction

AAH Consultants have reviewed the Gate Burton Energy Park: *Preliminary Environmental Information Report* (PEIR), on behalf of Lincolnshire County Council (LCC), in relation to Landscape and Visual matters. Information downloaded from: https://www.gateburtonenergypark.co.uk/ and the documents that have been referenced, are as follows:

- **PEI Report - Volume 1: Main Report:**
  - Chapters 1 to 5 (not formally reviewed, but used to provide context to the site, development layout and proposals that would form the parameters for assessment);
  - Chapter 8: Ecology (not formally reviewed, but to provide ecology context to the layout and landscape and visual matters).
  - Chapter 10: Landscape and Visual Impact (main focus of AAH review);

- **PEI Report - Volume 2: Figures:**
  - PEI Report - Volume 2: Figure 1-1 Scheme Location
  - PEI Report - Volume 2: Figure 1-2 Scheme Boundary
  - PEI Report - Volume 2: Figure 2-1a Constraints Plan
  - PEI Report - Volume 2: Figure 2-1b Constraints Plan
  - PEI Report - Volume 2: Figure 2-2 Public Rights of Way
  - PEI Report - Volume 2: Figure 2-3 Construction Compound and Access Locations
  - PEI Report - Volume 2: Figure 2-4 Environment Masterplan (3 sheets)
  - PEI Report - Volume 2: Figure 3-1 EIA Scoping Site Boundary
  - PEI Report - Volume 2: Figure 3-2 Alternative Cable Route Corridors
  - PEI Report - Volume 2: Figure 3-3 Low Carbon and Island Green Power Shared Corridor
  - PEI Report - Volume 2: Figure 10-1 LVIA Study Area
  - PEI Report - Volume 2: Figure 10-2 Landscape Character Assessment Topography
  - PEI Report - Volume 2: Figure 10-3 Public Rights of Way
  - PEI Report - Volume 2: Figure 10-4 National Landscape Character Areas
  - PEI Report - Volume 2: Figure 10-5 Regional Landscape Character Areas
  - PEI Report - Volume 2: Figure 10-6 County District Landscape Character Areas
  - PEI Report - Volume 2: Figure 10-7 Local Landscape Character Areas
  - PEI Report - Volume 2: Figure 10-8 Areas of Great Landscape Value
  - PEI Report - Volume 2: Figure 10-9 ZTV Bare
  - PEI Report - Volume 2: Figure 10-10 ZTV Barrier
  - PEI Report - Volume 2: Figure 10-11 Viewpoint Locations on OS Mapping
  - PEI Report - Volume 2: Figure 10-12 Viewpoint Locations on Aerial Photography

- **PEI Report - Volume 3: Appendices:**
  - PEI Report - Volume 3: Appendix 10A Legislation and Planning Policy
  - PEI Report - Volume 3: Appendix 10B LVIA Methodology
  - PEI Report - Volume 3: Appendix 10C Landscape Baseline
  - PEI Report - Volume 3: Appendix 10D Visual Baseline

- PEI Report - Volume 3: Appendix 10E Visual Assessment
- PEI Report - Volume 3: Appendix 10F Existing Viewpoint Photography

The review takes into account previous AAH comments (Refer to Gate Burton Technical Memos *AAH TM01* and *AAH TM02*), as well as meetings/workshops held with AECOM and subsequent meeting minutes. The comments provided are intended to assist in guiding the next (final) stage of the development process, refinement of the content of the LVIA chapter and the overall development proposals. It is not a review of any of the preliminary findings or initial assessments.

PEIR Landscape and Visual Comments

A. Main Overarching Comments on the PEIR:

1. The proposed development is subject to EIA, and a Scoping Report was issued by the developer: *Gate Burton Energy Park, Environmental Impact Assessment Scoping Report,* prepared by AECOM, November 2021*,* which contained a section on LVIA. Subsequently, a Scoping Report Review was carried out by LCC (16th December 2021) which was appended to the *Scoping Opinion* issued by PINS dated: 20th December 2022. Overall the PEIR and subsequent scope of the LVIA is generally aligned with the scoping report and scoping opinion, as well as other AAH comments (*AAH TM01* and *AAH TM02*), and meetings/workshops held with AECOM.

   However, it should be noted that since the Scoping Report was issued, and meetings were held with AECOM on viewpoints, the redline boundary has been amended along the western boundary to include two large plots to cover two access points along the A156. While panels or development is not currently shown in these additional areas (Figure 2-4), access roads and main construction access will likely be located here, and Figure 2-4 is showing a large construction compound in one of these locations. Beyond Viewpoint 13, and medium distance viewpoints west of the River Trent, these areas have not been captured in discussions. We request that this is clarified and discussed further with the development team as there are potential additional landscape and visual impacts along the A156 through vegetation removal, construction activity (including construction vehicular activity), and new access construction.

2. As outlined within Chapter 2 of the PEIR, the development proposals are still being developed and finalised. This includes the type of PV panel and location of taller/larger elements such as substations and battery storage. While it is understood that some aspects of the scheme cannot be confirmed at this stage as they would be dependent upon individual contractors selected at the tender stage (para. 2.3.2) we would expect a reasonable design fix for the final ES which would clearly set out the parameters of the development, such as heights and locations of elements that have been used in the assessment, which if there are still some outstanding design and layout elements to be finalised would be based on a "worst case" scenario to ensure any effects are not underplayed. This is particularly important for larger and taller elements such as the substation or battery storage.

3. It is requested that further landscape and visual consultation is carried out between AAH/LCC and District Authority landscape specialists and the developer team (AECOM) following the conclusion of this second formal consultation phase. This would likely cover the PEIR comments as well as development proposals and mitigation scheme, including the

cable route corridor (particularly river crossing) and location of any larger structures or buildings such as the substations, extent of vegetation loss for highways works, and also subsequent knock-on effects such as any requirement for additional viewpoints or AVRs.

B. <u>Detailed Comments on PEIR Volume 1: Report:</u>

1. In regards to the landscape and visual matters of the design proposals (**Chapter 2 of the PEIR**):
   - Comments on the ***Design Parameters*** (Section 2.3) are as follows:
     - As stated in previous correspondence (refer to paragraphs 3 and 4 of *AAH TM02*), at this stage, we do not have details on the final location and appearance/extent of taller/larger elements that form part of the development. Table 2-1 within Chapter 2 of the PEIR usefully provides details of the design parameters used for the PEIR, and paragraph 2.3.3 of Chapter 2 states:
       "Use of design parameters is therefore adopted to present a likely worst-case assessment of potential environmental effects of the Scheme that cannot yet be fixed. Wherever an element of flexibility is maintained, the likely worst-case impacts are reported in this PEI Report and will be reported in the ES.".
       Paragraph 2.3.4 goes on to state: *"The EIA has therefore been undertaken adopting the principles of the 'Rochdale Envelope', as described in the Planning Inspectorate Advice Note 9 (Ref 2-1). This involves assessing the maximum (and where relevant, minimum) parameters for the Scheme where flexibility needs to be retained."*
     - While this will likely be a reasonable approach for the PV panels, we have concerns in regards to the larger and taller elements, such as substation (up to 11m in height), Control building and Office (up to 6m in height), warehouse and storage building (up to 7.2m in height), and more conspicuous elements such as energy storage and conversion units/inverters. The final location and layout of these elements will likely have greater visual effects in this flat, rural landscape than PV panels.
     - We would expect the location and "worst case" extent (footprint) of these elements to be identified for the LVIA to allow for a better understanding of the potential landscape and visual effects, an updated ZTV based upon these parameters and an understanding of the likely requirement for additional viewpoint photographs to capture views of the taller/larger elements.

   - Regarding <u>Overhead/ground lines:</u> Could it be clarified if any above-ground lines and associated poles are proposed. Paragraph 2.4.30 identifies some cabling above ground (between racks) on site, and further detail would be required to understand the potential visibility of these.

   - Regarding <u>vegetation loss</u>:
     - The extent of any vegetation loss to facilitate construction access or the permanent site access points identified in paragraphs 2.4.41 to 2.4.43, is not identified. Also, any vegetation loss to facilitate any potential wider highways works is not identified. We would expect this all to be clearly illustrated and included within any assessment as this has the potential to remove existing features (that make up the character area) and open up views into or across the site. We would expect any proposed vegetation removal to be surveyed to *BS:5837 Trees in Relation to Design, Demolition and Construction to Construction* so it is clear what the arboricultural value is (to aid assessment) and subsequently is appropriately mitigated against if required.

2. In regards to the landscape and visual matters of the Alternatives and Design Evolution (**Chapter 3 of the PEIR**):
   - A refinement of the cable route corridor has been carried out from the scoping stage, and the PEIR section 3.7 identifies the opportunity to develop a *"Shared Grid Connection Corridor"* with the proposed Cottam and West Burton Solar schemes (also shown on Figure 3-3). This would include a combined crossing of the River Trent southwest of Marton, which also seeks to combine this crossing with Cottam and West Burton. This crossing is indicative at this stage and due to the context has likely landscape and visual effects, as well as potential ecological effects. It is requested AAH and LCC, as well as other relevant stakeholders, are involved and consulted further in regards to the crossing, and cable corridor, once further design and surveys have been carried out. Also, subject to the final design solution and location of the crossing and cable corridor, additional viewpoints and potentially AVRs of the crossing may need to be included within the LVIA to assess and illustrate any potential visual effects.

3. In regards to the landscape and visual chapter (**Chapter 10 of the PEIR**):

   - The PEIR in section 10.2 identifies that consultation in relation to landscape and visual matters has been carried out, and AAH/LCC and other relevant stakeholders have held meetings and workshops with AECOM, summarised in table 10-1. Paragraph 10.2.2 references: *"Additional viewpoints recommended by Lincolnshire County Council are still subject to verification and photography on site. These additional viewpoints will be fully assessed as the Environmental Impact Assessment (EIA) progresses".* Appendix 1-C of the PEIR includes consultation responses in relation to the scoping opinion, however we would expect reference to be made in the LVIA to specific consultation comments, such as *AAH TM01* and *AAH TM02*, as well as this set of PEIR comments (*AAH TM03*).

     It is requested that further landscape and visual consultation is carried out between AAH/LCC and District Authority landscape specialists and the developer team (AECOM) following the conclusion of this second formal consultation phase.

   - The PEIR identifies the extent of the Study Area of the development of 3km at section 10.5, which defines the spatial scope of the area to be addressed. The 3km study area also currently includes the grid connection route. The LVIA Chapter should include a clear statement on the justification for the extent of the final Study Area.

   <u>Identification of receptors:</u>

   - The PEIR identifies a range of landscape and visual receptors within the Study Area. The visual receptors and viewpoints were previously discussed with AAH/LCC, as were the potential locations of Photomontages. Paragraph 10.2.2 PEIR however states: *"Additional viewpoints recommended by Lincolnshire County Council are still subject to verification and photography on site. These additional viewpoints will be fully assessed as the Environmental Impact Assessment (EIA) progresses".* However as stated and noted in previous correspondence, at this stage, we do not have details on the location and appearance/extent of taller/larger elements that form part of the development, which would likely have visual impacts that may require additional viewpoints beyond those initially identified.

- Twenty four potential landscape receptors at varying scales are identified for consideration in the LVIA within section 10.7 (paras. 10.7.30 to 10.7.56). The correct National, County and District Landscape Character Areas (LCA) have been referred to within the PEIR and cover a range of scales, and there is potential to scope out character areas that would not be affected by the development. We agree with the statement within paragraph 10.7.30 that National Character Areas are at a large scale and typically provide context only, as opposed to being a receptor to be assessed.

- Paragraph 10.7.54 identifies that AECOM have undertaken their own Local Landscape Character Area assessment, stating: *"A local landscape character assessment has therefore been undertaken in preparation for the ES. This provides a current and more defined analysis of the landscape character within the study area, and in comparison to the published studies at a scale proportionate to the DCO Site and the likely significant effects.".* The LVIA should clarify why these character assessments were carried out, and also how they reflect (or are different than) published character assessments, which in some cases may be old documents, still provide relevant information. It is assumed this section of the PEIR is shown graphically on Figure 10-7. This is not clear and the legend should reflect the text within the document as they are currently different.

- While a more local assessment has been carried out by AECOM, we would also suggest a finer-grained site-level character assessment and identification of individual elements or features of the landscape to form the baseline.

- The Area of Great Landscape Value within the site and study area should also be detailed within the baseline (and likely form a landscape receptor). While a local designation, the elements and features that are valuable and distinctive should be identified and understood so that any effects upon these from the development may be assessed.

- It would be useful to take into account the information collated as part of the Historic landscape characterisation project: *The Historic Character of The County of Lincolnshire (September 2011)*, to ensure that the development is sensitive to the historic landscape. The project documents and the mapping can be accessed here: Historic Landscape Characterisation – Lincolnshire County Council

- An HLF funded Landscape Partnership was carried out in the Trent Vale area in 2007-2013: the archived website is here: Trent Vale Landscape Partnership. It would be useful to have an assessment of how the proposed development will address the relevant priorities outlined in the reports:
  - Trent Vale Landscape Conservation Management Plan (June 2013).
  - Trent Vales Landscape Character Assessment: http://www.trentvale.co.uk/downloads/landscapecharacter.pdf

- Paragraph 10.7.64 confirms that additional viewpoints recommended by AAH/LCC will be included in the LVIA, however these are still subject to verification and photography on site. Once the viewpoint photographs are obtained, we request the opportunity to review and discuss with AECOM. Further comments on viewpoints and photography are made below.

- Table 10-6 Visual receptors identifies groups of receptors. In regards to the groups: *People travelling on roads and public transport* and *Recreational users*: while many of the surrounding lanes and tracks within the study area are rural and remote in character and primarily used for motor vehicles and farm access, they are also well used by dog walkers, horse riders and leisure cyclists, and subsequently the assessment should consider this within the baseline and methodology. The presence of several well-tended benches and grass verges with swathes of spring bulb planting reinforce the local value of these networks beyond being road networks, which also provide suitable connections for walkers improving the connectivity of the wider recreational footpath/PROW network.

- Paragraph 10.8.3 outlines the design principles embedded into the layout. PEI Report Volume 2: Figure 2-2 is incorrectly referenced to illustrate "Relevant Offsets": it is assumed this should be Figure 2-4 (Indicative Site Layout), however the actual offset distances are not provided. We would expect that the final layouts and ES provide clear minimum offset distances for each situation (PROW, Residential, watercourse, ecological constraint etc.) and boundary treatments, which would likely be illustrated using typical sections showing distances and mitigation proposals (planting).

- Section 10.9 provides a preliminary assessment of Likely Impacts and Effects. In regards to landscape effects, the scale or size of a character area (County or District) should not be a determining factor in assessing effects – if it were then any character area larger than a "local" level would result in minimal change. We would urge caution in regard larger landscape character areas, which often are assessed as having limited magnitudes of change as the change would be small scale and/or extent (development site) would only affect a small percentage of the overall, much larger, character area. We would encourage the LVIA assess what the change would be in that part of the character area and what identified key elements identified within the character areas are impacted, and how development change would affect those: The baseline should identify the key elements and features that make up the character area, and the assessment should look at how these would be affected, not just the scale of the project in relation to the character area.

C. <u>Detailed Comments on PEI Report - Volume 2: Figures:</u>

1. <u>Generally:</u> Figures are well presented and on the whole read well. However, due to the scale of the figures, up to 1:60,000@A3, some would benefit from enlarged sections that focus on the site and immediate context, such as viewpoints and PROW information.

   The base mapping for figures appears to be OS Landranger 1:50,000 Scale, resized to the presented scale. This is fine for some of the mapping; however we would suggest that OS Explorer 1:25,000 Scale, resized to the presented scale, may be utilised for some of the figures to aid clarity such as viewpoint locations and PROW information. This would assist locating these on site and helping orientation.

2. <u>Figure 2-2 Public Rights of Way</u>: The PROW adjacent and within the site are unclear, particularly those running along red line boundaries, which are some of the most important to identify being in such close proximity to development. The final plan should make these PROW clearer – amending the layer order and colour of the PROW may improve this.

3. Figure 2-4 Environment Masterplan (3 sheets): These plans illustrate the site proposals and mitigation areas in the context of existing infrastructure and features and environmental designations. The final submission should clearly state if the final Environmental Masterplan and mitigation identified within paragraph 10.8.3 of the PEIR are indicative to allow for flexibility, or if fixed. If indicative, the LVIA needs to clearly state what layout and mitigation it has been based upon, as different mitigation strategies will likely alter potential effects, and also a strategy to secure the mitigation should be provided.

   Due to the evolving nature of the layouts, there are currently no Landscape and Visual Comments on the layout itself. However, it is requested that additional meetings and workshops be held with AAH/LCC so that a continued dialogue is maintained in regards to the development proposals, including the cable route corridor, location of any larger structures or buildings such as the substations and mitigation.

4. Figure 10-3 Public Rights of Way: The PROW adjacent and within the site are unclear, particularly those running along red line boundaries, which are some of the most important to identify being in such close proximity to development. The final plan should make the PROW clearer.

5. Figure 10-5 Regional Landscape Character Areas: It would aid legibility of the Legend stated which published landscape character assessment the regional character areas are based upon (East Midlands Regional Landscape Character Assessment (2009).

6. Figure 10-6 County and District Landscape Character Areas: It would aid legibility of the Legend stated which published landscape character assessment the regional character areas are based upon (Nottinghamshire County Landscape Character Assessment).

7. Figure 10-7 Local Landscape Character Areas: It would aid legibility of the Legend matched the text within the report (Table 10-5 Local Landscape Character Areas within the PEIR).

8. Figure 10-10 ZTV Barrier: The production of this ZTV with the inclusion of the 11m Substation indicates that there may be more potential views of this tall structure than initially presented (earlier consultation meetings and information presented) even considering barriers within the landscape. We suggest a ZTV of these taller elements is produced to aid an understanding of the potential views of this element to allow further discussions on the potential visual impacts of the development.

D. Detailed Comments on PEI Report - Volume 3: Appendices (Chapter 10 LVIA):

Review of Appendix 10A Legislation and Planning Policy

1. No comments in relation to landscape and visual matters at this stage.

Review of Appendix 10B LVIA Methodology

2. The methodology notes in para 10.2.4 that the LVIA has been undertaken in accordance with recognised best practice documents and guidance, including GLVIA3, and paragraph 10.2.5 provides an overview of the stages of the methodology.

3. Paragraphs 10.3.1 to 10.3.3 provide an overview of the process of defining the 3km study area. Could it be clarified that now taller elements (substation etc.) have been indicated on

the layouts and included on the ZTV (Figure 10-10), this process has been carried out again and views beyond 3km (apart from VP07, C4 and C5 along the eastern ridge) have been scoped out. The visibility of proposals appears to have increased over previous information provided.

4. Paragraph 10.3.5 references 1:25,000 and 1:10,000 scale Ordnance Survey mapping, however, the base maps used on figures appears to be OS Landranger 1:50,000 Scale. We would recommend base mapping is "upgraded", where appropriate, to 1:25,000 or 1:10,000 and re-scaled as needed.

5. Paragraph 10.3.13 provides an overview of the published character assessments reviewed, and clarifies a "Local Landscape Character Areas" assessment was carried out by AECOM. We would also expect a finer-grained site-level character assessment and identification of individual elements or features of the site to form the baseline to understand how these may be affected by the development. The Area of Great Landscape Value within the site and study area should also be detailed within the baseline (and likely form a landscape receptor). While a local designation, the elements and features that are valuable and distinctive should be identified and understood so that any effects upon these from the development may be assessed. Effects within the AGLV should be assessed to understand what the change would be in that part of the local landscape designation and what identified key elements of value are impacted, and how development change would affect those.

6. Paragraph 10.3.17 identifies potential visual receptor groups. Having visited the site over the period of several days, as well as carrying out fieldwork in the local area for other projects, we have observed that while many of the surrounding lanes and tracks within the study area are rural and remote in character and primarily used for motor vehicles and farm access, they are also well used by dog walkers, horse riders and leisure cyclists, and subsequently the assessment should consider this within the methodology. The presence of several well-tended benches and grass verges with swathes of spring bulb planting reinforce the local value of these networks beyond being road networks, which also provide suitable connections for walkers improving the connectivity of the wider recreational and PROW footpath network. Rail passengers should also be included as visual receptors, particularly with the railway line passing through the centre of the site.

7. Visualisations are proposed as Type 3 photomontages, as referenced in paragraphs 10.3.21 and 10.10.1. We recommend this is subject to further consultation to agree the Type (essentially to agree to scope out Type 4) and agree the AVR Level that would be most appropriate to illustrate the proposals, which we would assume would be Level 2 or Level 3, however photowire (Level 0 or Level 1) may be more appropriate in some long distance or fully screened views.

8. "Under Landscape Value (paragraph 10.3.25), it is potentially implied that only designated landscapes may have a medium or high value. This is not the case, and GLVIA3 paragraph 5.19 states that *"value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape"* and that *"the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have value."*.

9. In regards to Landscape Sensitivity, criteria/descriptions are provided in Table 3, however how value and susceptibility are combined (which would have already been defined within Tables 2 and 3), potentially as a matrix, to assess Sensitivity may be more useful. While not a requirement, including a matrix, which would guide professional judgement, could assist in transparency and provide a consistent approach as to how the Sensitivity of a receptor has been arrived at rather than relying on the pre-determined criteria within Table 3. Again, the descriptions imply that only designated landscapes may have higher sensitivity.

10. Table 5 provides classifications of visual susceptibility; however we would re-iterate the point in regards many of the surrounding lanes and tracks within the study area are also well used by dog walkers, horse riders and leisure cyclists, and subsequently the assessment should consider views (and susceptibility) from these groups from these locations.

11. In regards to Visual Sensitivity, criteria are provided in Table 6, however how value and susceptibility are combined (which have already been defined within Tables 4 and 5), potentially as a matrix, to assess Sensitivity would be more useful. While not a requirement, including a matrix, which would guide professional judgement, would assist in transparency and provide a consistent approach as to how the Sensitivity of a receptor has been arrived at rather than relying on the pre-determined characteristics within Table 6. Again, the descriptions imply that only views of, or across, designated landscapes may have higher sensitivity.

12. Section 10.8 provides an overview of the Relationship to Residential Visual Amenity. It would be useful to clarify if the study area for this is the same as the LVIA – 3km (which is likely too large for the RVAA), or if a different study area is proposed, and provide justification for this.

13. Section 10.10 provides a brief methodology of Visualisations (Photomontage) Methodology. This should include full details/parameters of the elements that have been modelled (Solar arrays, substation etc.) for transparency of what is being illustrated, and enable this to be referenced against the "worst case" design parameters (e.g. if shown at maximum heights, or lower than maximum provided in design parameters).

14. Cumulative Effects have not been adequately covered in the methodology and we would expect this to be part of the final LVIA.

Review of Appendix 10C Landscape Baseline:

15. No comments on the landscape baseline appendix at this stage. However, we would note that the assessment of susceptibility, and subsequently sensitivity, does cloud the baseline aspect of the appendix. The susceptibility of the landscape is dependent upon the proposals and would be considered as part of the assessment. As stated in the AECOM methodology (PEIR Appendix 10B) at paragraph 10.3.26:

    "GLVIA3 paragraph 5.40 defines landscape susceptibility as:
    "the ability of the landscape receptor (whether it be overall character or condition of a particular landscape type or area, or an individual element and/or features, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies" (paragraph 5.40)."

Review of Appendix 10D Visual Baseline

16. Paragraph 1.2.1 identifies that: *"A total of 29 representative viewpoints have been selected to assist in illustrating the effects on visual receptors."*. These have been discussed previously with AECOM, and AAH/LCC have visited the viewpoints on site and comments on individual images/views are provided below (Review of Appendix 10F Existing Viewpoint Photography).

17. Paragraph 1.2.3 identifies that: *"Additional viewpoints recommended by Lincolnshire County Council are still subject to verification and photography on site. These additional viewpoints will be included as the Environmental Impact Assessment (EIA) progresses."*. Once these views have been photographed, we request that AECOM provide AAH/LCC with the photographs to review and comment on as part of ongoing consultation and engagement.

Review of Appendix 10E Visual Assessment

18. No comments on the landscape baseline appendix at this stage. However, we would refer back to our previous comments on road users, particularly country lanes, that will likely include cyclists (including leisure cycles), walkers/pedestrians, dog walkers and horse riders who would likely be more susceptible to change in view.

Review of Appendix 10F Existing Viewpoint Photography

19. Comments in regards to the viewpoint photography:

    - We have assumed these are interim lower resolution images for the PEIR and would expect full resolution images for the final LVIA.
    - Paper/page size appears to be closer to A2 not A1 – please clarify and ensure images for LVIA are at an appropriate resolution and size to align with the Landscape Institute TGN 06/19 Visual Representation of development proposals.
    - Overall, the images presented for the viewpoints are of a resolution that does not allow for clarity of long-distance views, with elements in the mid to long-distance appearing hazy or pixelated and occasionally elements in the long distance often not being distinguishable, so as to not appear in the view at all.

20. VP01: View may provide more indication of visibility of substation if either rotated to the right (east), or if extended (additional sheet) to capture more of the eastern extents. View shown looking north east on Figures.

21. VP07: While a long-distance view, this viewpoint provides a panoramic view of Gate Burton from a recognised viewing area (Tillbridge Lane Viewpoint) and the view likely includes West Burton and Cottam, so important for cumulative effects (as has been highlighted by the PEIR). The image included within the PEIR does not provide clarity of this long-distance view and beyond approximately 1 to 2km appears pixelated. This is likely due to the resolution; however we would expect this viewpoint image to pick up views of these sites;

22. VP10: Development is proposed both sides (north and south) of this road, as are site access points. Extending (additional sheet) the view to the left (south) would capture this.

23. VP13: If this location is selected for the A156 Access option, more context to the view would assist in understanding the change in view – extending the view (additional sheet) may achieve this.

24. VP21 to VP24: No comments at this stage. Once the cable route has been developed, we will review and provide comment.

25. C4 and C5: Comments as per VP07 above.

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02nd August 2022

APPENDIX B

Landscape Institute Technical Guidance Note 1/20 (10 Jan 2020)
: Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs).

Landscape Institute Technical Guidance Note

Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs)

Technical Guidance Note 1/20 (10 Jan 2020)

The purpose of this guidance is to establish a framework for carrying out reviews of LVIAs and LVAs, analysing in a structured and consistent way if the assessment reflects the approach advocated in GLVIA3 and has led to reasoned and transparent judgements. Use of this framework should in due course further raise the standard of assessments

1. Introduction

The third edition of the *Guidelines for Landscape and Visual Impact Assessment* (GLVIA3) was published in April 2013. It has been widely welcomed, accepted and adopted for use in assessing the effects of projects on landscape and visual amenity and since publication been promoted by Landscape Institute (LI) training events.

GLVIA3 sets out that assessment of effects on the landscape and visual resource that may result from a development proposal may be undertaken formally as Landscape and Visual Impact Assessment (LVIA) typically as part of an Environmental Impact Assessment (EIA) or less formally as a Landscape and Visual Appraisal (LVA). The LI strongly recommends that GLVIA 3 is followed when undertaking these assessments and that the resulting LVIAs and LVAs should be objective with clear thinking, easy to follow, and demonstrate how they have informed appropriate siting, design, and mitigation.

The main difference between an LVIA and LVA is that in an LVIA the assessor is required to identify 'significant' effects in accordance with the requirements of Environmental Impact Assessment Regulations 2017, as well as type, nature, duration and geographic extent of the effect whilst an LVA does not require determination of 'significance' and may generally hold less detail.

In the case of LVIAs, The Regulations have further implications for landscape professionals:

- Reg. 18 (5) stipulates that the developer must ensure that the ES is prepared by '*competent experts'* and that the developer must include a statement "*outlining the relevant expertise or qualifications of such experts".*

- Reg 4 (5) places obligations on the relevant planning authority or the Secretary of State because they "…*must ensure they have, or have access as necessary to, sufficient expertise to examine the Environmental Statement."*

Note that the terms 'competent expert' and 'sufficient expertise' are not defined in the EIA Regulations. The Landscape Institute, in the absence of formal certification of specific competence, considers that a 'competent expert' would normally be a Chartered Member of the Landscape Institute who, has substantive experience of undertaking and reviewing LVIAs. This may be evidenced by the assessor's CV, by reference to previous assessments, and by endorsement by other senior professionals.

Following on from GLVIA3, which focusses on how to *undertake* LVIAs/LVAs, this document provides guidance on how to *review* LVIAs or LVAs prepared by others. Such review may be undertaken from within the organisation which produced the LVIA/LVA, e.g. as part of a QA process, or by third parties on receipt of LVIAs and LVAs, such as landscape and or planning professionals in public sector bodies.

This guidance sets out a framework for carrying out such reviews in a structured and consistent way that reflects the approach to assessment advocated in GLVIA3 and use of it should further raise the standard of assessments.

2. Existing advice and guidance

GLVIA3 Chapter 8, under the heading "Review of the landscape and visual effects content of an Environmental Statement", says:

"8.35 Competent authorities receiving Environmental Statements will often subject the documents to formal review of both the adequacy of the content and of their quality. The review process will usually check that the assessment:

- *meets the requirements of the relevant Regulations;*
- *is in accordance with relevant guidance;*
- *is appropriate and in proportion to the scale and nature of the proposed development;*
- *meets the requirements agreed in discussions with the competent authority and consultation bodies during scoping and subsequent consultations.*

8.36 The summary good practice points in this guidance should assist in review of the landscape and visual effects content of an Environmental Statement. In addition, several existing sources may also help anyone involved in reviewing this topic to decide what to look for:

- *IEMA has developed a series of general criterial for reviewing Environmental Statements and registrants for the EIA Quality Mark*[1] *must meet the criteria…*
- *The former Countryside Commission published criteria for reviewing the landscape and countryside recreation content of Environmental Statements…*
- *Appendix 1 of Scottish Natural Heritage's Handbook on EIA* [2]*contains useful tests to help judge the landscape and visual effects content of Environmental Statements…"*

In addition, European Commission guidance on ES review[3], published in 2001 and, although directed at whole ES review rather than topic specific review, has also provided useful pointers.

This review framework has been developed in this context.

[1] IEMA EIA Quality Mark, IEMA website: https://www.iema.net/eia-quality-mark [accessed 200110]

[2] Scottish Natural Heritage, A handbook on environmental impact assessment v5, 2018, SNH website: https://www.nature.scot/sites/default/files/2018-05/Publication%202018%20-%20Environmental%20Impact%20Assessment%20Handbook%20V5.pdf [accessed 200110]

[3] European Commission, Guidance on EIA-EIS Review, Luxembourg: Office for Official Publications of the European Communities 2001 ISBN 92-894-1336-0, EC website: http://ec.europa.eu/environment/archives/eia/eia-guidelines/g-review-full-text.pdf [accessed 200110]

3. Carrying out the review

There are three main components of a review of a LVIA or LVA leading to a report containing the overall conclusion in respect of the completeness, competency and reliability of the LVIA/LVA.

1. **Checking the methodology used to undertake the assessment, the criteria selected (including balance between), and the process followed;**
2. **Checking the baseline, content and findings of the assessment;**
3. **Checking the presentation of the assessment findings.**

As a starting point when undertaking a review, the reviewer will need to define the structure and process to be followed by for example setting out a set of headings or questions against which the LVIA or LVA is examined. Setting out standard or systematic questions will allow consideration being given to each step and each element covered in the assessment. The "good practice" bullet points at the end of each chapter in GLVIA3, noted above, may provide a starting point for such an approach. It is also important to bear in mind the principle of proportionality (cf. EIA Directive). Both the LVIA (or LVA) and the Review should have a defined scope and level of detail which is proportionate and reasonable to allow an informed decision to be reached.

In order to improve consistency and quality of reviews of LVIAs and LVAs the Landscape Institute has produced this framework. Those who undertake reviews should follow this framework and modify or adapt the framework to the Review being carried out and set out the reasons for such modifications.

Step 1. Checking methodology, criteria and process

In this phase, the reviewer will check the methodology, scope and process used in the assessment and how these relate to GLVIA 3. This involves reviewing the following:

a) Does the scope of the assessment meet the requirements set out in the Scoping Opinion and/ or as defined in the LVIA or LVA and if substantively different, are the reasons clearly set out and explained?
b) What consultations have been carried out and have responses been acted upon?
c) Has the scope and methodology of the assessment been formally agreed with the determining authority? If not, why not?
d) As part of the methodology, has the terminology been clearly defined, have the criteria to form judgements including thresholds been clearly defined and have any deviations from good practice guidance (such as GLVIA3) been clearly explained?
e) Does the assessment demonstrate a clear understanding and provide a separate consideration of landscape and visual effects?
f) Does the assessment demonstrate comprehensive identification of receptors and of all likely effects? and
g) Does the assessment display clarity and transparency in its reasoning, the basis for its findings and conclusions?

Step 2. Check the baseline, content, and findings of the assessment

As part of this stage in the review process the reviewer will consider the description of the baseline, both in narrative as well as in illustrations by plans, photographs and drawings etc. This may also include publicly available aerial photography, books, online resources, local plans and management plans.

The reviewer may also consider that a site visit may be necessary either to complement or to verify baseline information. The site visit and potential visits to viewpoints are also useful to check actual findings of the assessment.

This stage of the review typically includes further tests:

a) What is the reviewer's opinion of the scope, content and appropriateness (detail, geographic extent) of both the landscape and the visual baseline studies which form the basis for the assessment of effects (supported by appropriate graphic such as ZTVs etc as appropriate)?
b) Has the value of landscape and visual resources been appropriately addressed (including but not necessarily limited to) considerations of: local, regional and national designations; rarity, tranquillity, wild-land and valued landscape?
c) Have the criteria to inform levels of sensitivity (both landscape and visual) and magnitude of change have been clearly and objectively defined, avoiding scales which may distort reported results?
d) How well is the cross-over with other topics, such as heritage or ecology, addressed?
e) Is there evidence of an iterative assessment-design process?
f) Is it clear how the methodology was applied in the assessment, e.g.: consistent process, use of terms, clarity in reaching judgements and transparency of decision-making?
g) How appropriate are the viewpoints that have been used?
h) How appropriate is the proposed mitigation, both measures incorporated into the scheme design and those identified to mitigate further the effects of the scheme, and mechanisms for delivering the mitigation?
i) What is the reviewer's opinion of the consistency and objectivity in application of the criteria and thresholds set out in the methodology for assessing the sensitivity of receptors, the magnitude of changes arising from the project, the degree/nature of effects, and the approach to judging the significance of the effects identified, in the case of EIA projects?
j) What is the opinion on the volume, relevance and completeness of the information provided about the development or project including, where relevant, detail about various development stages such as construction, operation, decommissioning, restoration, etc.?
k) Does the document clearly identify landscape and visual effects which need to be considered in the assessment? and
l) Have levels of effect have been clearly defined and, in the case of LVIA, have thresholds for significance been clearly defined and have cumulative landscape and visual effects been addressed?

Step 3. Critique of the presentation of the findings of the assessment

This phase is perhaps the most straightforward. It involves examining the 'presentation' of the assessment including report text, figures/ illustrations, visualisations, and other graphic material forming the LVIA or LVA, and answering the following:

a) Does the LVIA/ LVA display transparency, objectivity and clarity of thinking, appropriate and proportionate communication of all aspects of the assessment of landscape and visual effects, including cumulative effects.
b) Have the findings of the assessment been clearly set out and are they readily understood?
c) Has there been clear and comprehensive communication of the assessment, in text, tables and illustrations?
d) Are the graphics and/or visualisations effective in communicating the characteristics of the receiving landscape and visual effects of the proposals at agreed representative viewpoints?
e) Are the graphics and/or visualisations fit for purpose and compliant with other relevant guidance and standards? and
f) Is there a clear and concise summation of the effects of the proposals?

Overall Conclusion: Report the review

The final step of the review process is to use the reviewer's findings to draft a short report which would include (but need not be limited to):

1. Confirmation of the brief issued to the reviewer setting out the scope of the review;
2. A summary of how the review was undertaken);
3. A summary of findings of the review of the assessment methodology;
4. A summary of findings of the review of the scope of the assessment;
5. A summary of findings of the review of the actual assessment of effects;
6. A summary of findings of the presentation of the assessment;
7. A summary statement by the reviewer in respect of appropriateness, quality, comprehensiveness, compliance and conformity with relevant guidance and regulations;
8. Recommendations for further information to be sought (if necessary); and
9. Overall conclusions on the adequacy of the assessment and whether it is sufficient to support making an informed planning decision.

The report can also include further information not covered here but relevant to reporting on the compliance (or otherwise) of the LVIA or LVA with GLVIA3 or matters of competence or expertise. This guidance provides a summary framework for reviewing and reporting only; the Landscape Institute continues to regard GLVIA3 as the primary source of guidance for undertaking LVIAs and LVAs.

4. Further information

For further information or to provide feedback on the guidance in use, please refer to the Landscape Institute's website, using the search terms GLVIA. At the time of publication, material is likely to be found in the following section: https://www.landscapeinstitute.org/technical/glvia3-panel/

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