Light Valley Solar

Environmental Statement Volume 1

Chapter 5: Agricultural Land and Soils

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DCO Submission

Chapter 5: Agricultural Land and Soils

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5.1 Introduction

5.1.1 This chapter presents the findings of the assessment of the likely significant effects arising from the construction, operation (including maintenance) and decommissioning of the Proposed Development on agricultural land and soils.

5.1.2 This chapter sets out the relevant legislation, policy, standards and guidance applied to the assessment process; consultation undertaken to inform the assessment; assessment methodology; the relevant baseline conditions upon which the assessment is based; embedded mitigation considered in place before the assessment is undertaken; the likely significant effects that may arise as a result of the Proposed Development considering embedded mitigation; further mitigation requirements to reduce or remove any identified likely significant effects; the remaining residual effects following further mitigation; and any monitoring required for remaining significant effects.

5.1.3 The conclusions of the following topic assessments are considered relevant to the receptors considered within this assessment, and as such are taken into account in the overall assessment for agricultural land and soils:

1) Chapter 13: Socioeconomics (ES Volume 1) [**EN0110012/APP/LVS/06.01.13**].

5.1.4 This chapter is supported by the following figures (ES Volume 2):

1) Figure 5.1: Survey Observation Locations [**EN0110012/APP/LVS/06.02.05.01**]; and
2) Figure 5.2: Agricultural Land Classification [**EN0110012/APP/LVS/06.02.05.02**].

5.1.5 This chapter is supported by the following appendices (ES Volume 3):

1) Appendix 5.1: Agricultural Land Classification [**EN0110012/APP/LVS/06.03.05.01**].

5.2 Scope of the assessment

5.2.1 The EIA Scoping Report (see Appendix 1.1 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.01**]) set out the proposed scope for the assessment of agricultural land and soils. The scope of the agricultural land and soils assessment is summarised in Table 5-1 below.

Table 5-1 Agricultural land and soils assessment scope

Aspect	Phase	Scoped in / out	Summary comments
Loss of use of land for agriculture,	Construction and decommissioning	Scoped in	The EIA Scoping Opinion (see Appendix 1.2 (ES Volume 3)

Aspect	Phase	Scoped in / out	Summary comments
including that of best and most versatile (BMV) quality land for Solar Development Sites	Operation	Scoped out	[**EN0110012/APP/LVS/06.03.01.02**]) confirmed that, on the basis that the assessment of the loss of land for use for agriculture, including that of BMV quality for Solar Development Sites, would be undertaken as part of the construction phase assessment, and based on the information provided within the EIA Scoping Report (Appendix 1.1 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.01**]) indicating no further land take or intrusive works are required as part of the operational phase, this matter could be scoped out of the operational assessment.
Loss of or damage to soil resources for Solar Development Sites	Construction, operation and decommissioning	Scoped in	Potential effects on soil resources are detailed in Section 5.9 of this chapter.
Damage to soils for Cable Corridors	Construction and decommissioning	Scoped in	Potential effects on soil resources are detailed in Section 5.9 of this chapter. An Outline Soil Resources Management Plan (oSRMP) [**EN0110012/APP/LVS/07.14**] has been prepared to support the DCO Application for the Proposed Development, the purpose of the measures within this plan are to ensure soils are protected and land restored to the grade it was prior to installation.
Damage to soils for Cable Corridors	Operation	Scoped out	The EIA Scoping Opinion (see Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]) agreed that this matter can be scoped out of the operational assessment on the basis that the assessment of damage to soils in the Cable Route Corridor would be undertaken as part of the construction phase assessment, and that no further land take or intrusive works are required as part of the operational phase.
Loss of agricultural land for Cable Corridors	Construction, operation and decommissioning	Scoped out	The EIA Scoping Opinion (see Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]) agreed that this matter can be scoped out of the assessment for all phases of the Cable Route Corridors, given the short term and temporary nature of construction and decommissioning works and provided that it can be demonstrated in the Environmental Statement (ES) that agricultural land uses can continue in

Aspect	Phase	Scoped in / out	Summary comments
			the Cable Route Corridor during operation. This chapter details at Sections 5.8 and 5.9 how agricultural land uses can continue in the Cable Route Corridor during operation. The oSRMP will ensure that effects on disturbed land and soils are minimised, enabling continued use.
Changes in land management during operation with potential to result in likely significant effects for soil health	Operation	Scoped in	Potential effects on soils during operation are detailed in Section 5.9 of this chapter.
Agricultural holdings/farm businesses	Construction, operation and decommissioning	Scoped out	The EIA Scoping Report see Appendix 1.1 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.01**])proposed to scope out effects on agricultural holdings and farm businesses because all landowners with farm businesses who are involved in the solar and battery elements of the Proposed Development have agreed to be involved in the project on a voluntary basis and have, therefore, considered the potential effects on the overall viability, diversity and resilience of their farm businesses. Agreements will also be in place between the landowners and occupiers of the land should the Proposed Development proceed. However, the EIA Scoping Opinion (see Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]) did not agree that these effects could be scoped out because there is currently no evidence of the voluntary agreements or any evidence that any form of assessment has been undertaken. In response to this, it is noted that Options Agreements have been signed with the affected landowners of the Solar Development Sites. The EIA Scoping Opinion (see Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]) considered that an assessment of the impacts to agricultural businesses should be included in the ES, including but not limited to removal of agricultural land from production,

Aspect	Phase	Scoped in / out	Summary comments
			sterilisation / severance of remaining agricultural land, impacts from the loss of any grants or other financial systems and the effects of the potential requirement to switch from arable to livestock / grazing. It should be noted that the assessment of operational effects assumes that all arable land will be put to grass but not necessarily that it will be grazed. Due to the short-term, temporary nature of disturbance of soils and land in the Cable Route Corridor, there will be no significant effects on affected landholdings in the Cable Route Corridor. The Applicant has had further discussions with the Planning Inspectorate (PINS) on the scope of these effects and has confirmed that voluntary agreements are in place for the Solar Development Sites and that all existing tenancies in these sites are based on short-term licences only, with no long-term tenancy agreements or succession rights affected by the Proposed Development. In respect of food security, the UK Food Security Report 2024 (Ref 3) has anticipated increases in land use change from agriculture to other uses, including energy production, and has concluded that with continued growth in agricultural output and subject to conducive market conditions, food production levels can be maintained or even increased alongside the land use change needed to meet Net Zero and Environment Act targets. Agricultural land use statistics show that of the 7,100 ha used for solar production in 2024 (0.08% of the country's utilised agricultural land), approximately half was also used for some form of agricultural production. It can be confirmed that there is no sterilisation or severance of remaining land within the farms that have voluntarily entered land into the Proposed Development. The Proposed Development would provide a long-term, alternative income source that would remove reliance on direct public support from agri-environment schemes whilst still providing environmental benefits. It would offer

Aspect	Phase	Scoped in / out	Summary comments
			a stable diversification option for agricultural businesses and provide financial security against volatility in wholesale food commodity markets and yields, protecting the remaining farm operations. The switch from arable to pasture is considered in Section 5.9 of this chapter and would allow the land to recover from intensive use, and the soil condition and structure to improve. The use of the soils for grassland under solar panels would improve soil health and biodiversity. It is therefore considered that there are no impacts to further assess within this chapter.

Study Area

5.2.2 The Study Area for agricultural land and soils comprises all of the agricultural land within the Order Limits. The Order Limits (total approximately 1,270 ha) is made up of four broad areas, including approximately 900 hectares (ha) within the Solar Development Sites, 328.5 ha within the Cable Route Corridors, 17.1 ha of Highways Improvement Areas (HIA) and 24.1 ha of Solar Development Site 8 Access.

5.2.3 HIAs includes minor works in relation to access points during construction and operation; visibility splays to ensure safe sightlines for vehicles; passing places on narrow roads; and access requirements for abnormal indivisible loads. They are related to existing highways, lanes (and their associated verges) and access tracks rather than agricultural land. They will be temporary in nature, and it is therefore not anticipated that works in these areas will result in significant temporary or permanent effect(s) to agricultural land.

5.3 Relevant legislation, policy, standards and guidance

5.3.1 The following section identifies the relevant legislation, planning policy, standards and guidelines which underpin the assessment methodology for agricultural land and soils and have informed the assessment, including the identification of mitigation.

Legislation

Table 5-2 Agricultural land and soils - Legislation

Legislation	Relevance to assessment
Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 1)	These regulations require that direct and indirect significant effects of proposed developments on land and soils are appropriately assessed.

Policy

Table 5-3 Agricultural land and soils - Policy

Policy	Relevance to assessment
Overarching National Policy Statement (NPS) for Energy (EN-1) (2025) (Ref 3) Section 5.11 Land Use, Including Open Space, Green Infrastructure and Green Belt. Paragraph 5.11.12 indicates that applicants should seek to minimise impacts on the BMV agricultural land and preferably use land in areas of poorer quality (grades 3b, 4 and 5). Paragraphs 5.11.13 and 5.11.14 state that applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed, principally through a Soil Management Plan to encourage the sustainable reuse of soils. Paragraph 5.11.15 states that developments should contribute to and enhance the natural and local environment by preventing new and existing developments from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil pollution (amongst other matters). In respect of mitigation, paragraph 5.11.23 indicates that applicants should seek to minimise effects on the existing use of the proposed site and on uses near the site by applying good design principles, including the protection of soils during construction. Paragraph 5.11.34 indicates that the Secretary of State should ensure that applicants do not site their scheme on BMV agricultural land without justification. Where schemes are to be sited on BMV agricultural land, the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.	This chapter provides an assessment of the impacts on agricultural land and soils in Section 5.9 and includes survey results from the Agricultural Land Classification (ALC) surveys in Section 5.7. Surveys have been undertaken to define the areas of each ALC grade present within the Order limits such that this assessment has identified and considered implications for BMV agricultural land. An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application for the Proposed Development which contains the Applicant's commitments in respect of mitigating impacts to soil resources.
NPS for Renewable Energy Infrastructure (EN-3) (2025) (Ref 4) Paragraph 2.10.21 indicates that, while land type should not be a predominating factor in determining the suitability of the solar sites,	This chapter provides an assessment of agricultural land and soils in Section 5.9, and includes survey results from the ALC surveys throughout Section 5.7.

Policy	Relevance to assessment
applicants should, where possible, use previously developed land, brownfield land, contaminated land and industrial land. Where the use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land, avoiding the use of BMV agricultural land where possible. Paragraph 2.10.22 confirms that the development of solar farms is not prohibited on BMV agricultural land, but the impacts will need to be considered in line with paragraphs 2.10.67-84 and 2.10.99-118 of EN-3. However, within these sections, only paragraph 2.10.73 is relevant in respect of impacts on soils. Paragraph 2.10.23 recognises that it is likely that developments at this scale will use some agricultural land. Applicants should explain their choice of site, noting the preference for development to be on suitable brownfield, industrial and low and medium grade agricultural land. Paragraph 2.10.24 states that where sited on agricultural land, consideration should be given to whether the proposal allows for continued agricultural use and/or can be co-located with other functions. Paragraphs 2.10.25 and 2.10.26 indicate that ALC surveys should be carried out if necessary to establish the grade of land and inform a Soil Resources and Management Plan to use and manage soils sustainably throughout the various stages of a project. Mitigation measures for soils are set out in paragraph 2.10.119.	Chapter 3: Alternatives and Design Iteration (ES Volume 1) [**EN0110012/APP/LVS/06.01.03**] and Appendix 3.1: Site Selection Report (ES Volume 3) **[EN0110012/APP/LVS/06.03.03.01]** explain the stages undertaken in site selection, which included an early consideration of the likely presence of BMV land. Design work had regard to the results of the detailed ALC surveys and has sought to avoid the highest quality land for those parts of the Proposed Development where permanent impacts are assumed (as discussed below). An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources.
NPS for Electricity Networks Infrastructure (EN-5) (2025) (Ref 5) NPS EN-5 addresses policy for energy transmission, including the routing of overhead lines and undergrounding cables, and general requirements for 'good design' in accordance with the Holford and Horlock Rules (see paragraphs 2.9.16 – 2.9.19) and with reference to undergrounding cables (paragraph 2.9.26). In respect of undergrounding cables, paragraph 2.9.26 (bullet 5) sets out that the Secretary of State should only grant consent for underground lines on the basis of the applicant's commitment to mitigate the potential	This chapter provides an assessment of agricultural land and soils in Section 5.9 and includes survey results from the ALC surveys in Section 5.7. An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources.

Policy	Relevance to assessment
detrimental effects on agricultural land (particularly BMV land) and soils (including peat soils), which would include developing and implementing a Soil Resources and Management Plan. There should be a commitment to guarantee appropriate handling of soil, backfilling, and return of the land to the baseline ALC, thus ensuring no loss or degradation of agricultural land.	
National Planning Policy Framework (NPPF) (2024) (Ref 6) Section 15 Conserving and enhancing the natural environment. Paragraph 187 states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing soils and recognising the economic and other benefits of the BMV agricultural land. Paragraph 188 notes that plans should allocate land with the least environmental or amenity value. Footnote 65 states that where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. Section 6 Building a strong, competitive economy Paragraph 88b states that, in order to support a prosperous rural economy, planning policies and decisions should enable the development and diversification of agricultural and other land-based businesses.	This chapter provides an assessment of agricultural land and soils in Section 5.9 and includes survey results from the ALC surveys in Section 5.7. An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources.
Planning Practice Guidance (2025) (Ref 7) Natural Environment paragraphs 001, which relates to how planning takes account of agricultural land, and 002, which relates to how planning can safeguard soils. Paragraph 013 sets out the particular planning considerations that relate to large scale ground-mounted solar photovoltaic farms, and indicates that factors to be considered include encouraging the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value; demonstrating that the proposed use of any agricultural land is necessary and that poorer	This chapter provides an assessment of agricultural land and soils in Section 5.9 and includes survey results from the ALC surveys in Section 5.7. An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources. Chapter 3: Alternatives and Design Iteration (ES Volume 1) [**EN0110012/APP/LVS/06.01.03**] and Appendix 3.1: Site Selection Report (ES Volume 3) **[EN0110012/APP/LVS/06.03.03.01]** explain the stages undertaken in site selection,

Policy	Relevance to assessment
quality land has been used in preference to higher quality land; demonstrating that the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements; and recognising that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use.	which included an early consideration of the likely presence of BMV land.
Selby District Core Strategy Local Plan (2013) (Ref 8) Objective 15 is to make the best use of natural resources and to protect natural resources. Objective 16 includes improving the quality of land. Objective 17 specifies protection of the BMV agricultural land and enhancing natural resource value. Policy SP18 notes that development should be steered toward areas of least environmental and agricultural quality.	The agricultural land quality and soil resource baseline is set out in Section 5.7. Chapter 3: Alternatives and Design Iteration (ES Volume 1) [**EN0110012/APP/LVS/06.01.03**] and Appendix 3.1: Site Selection Report (ES Volume 3) [**EN0110012/APP/LVS/06.03.03.01**] explain the stages undertaken in site selection, which included an early consideration of the likely presence of BMV land.
Selby District Local Plan Publication Version (2022) (Ref 9) Policy SG4 notes that the BMV agricultural land will be protected by avoiding irreversible loss where possible, and that irreversible loss of Grade 1 should be avoided unless there are exceptional circumstances where the benefits of the proposal significantly outweigh the loss. It goes on to note that where there is a choice of sites that land of the lowest available grade should be preferred, and that development proposals should demonstrate that soil resources have been protected and used sustainably in line with best practice.	The agricultural land quality and soil resource baseline is set out in Section 5.7. The Proposed Development will not involve the irreversible loss of BMV agricultural land but the long-term, reversible use of such land. As detailed in Chapter 2: The Proposed Development (ES Volume 1) [[**EN0110012/APP/LVS/07.04**], all agricultural land required for the Proposed Development will be returned to the landowner following the decommissioning phase.
Environmental Improvement Plan (2023) (Ref 10) The plan is the first revision of the 25 Year Environment Plan and includes a commitment to bring at least 40% of England's agricultural soil into sustainable management by 2028 and 60% by 2030.	An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources.

Standards and Guidance

Table 5-4 Agricultural land and soils - Standards and Guidance

Standards and guidance	Relevance to assessment
Agricultural Land Classification of England and Wales - Guidelines for grading the quality of agricultural land (2025) (Ref 11) Sets out the methodology for classifying agricultural land, as referenced in paragraph 2.10.33 of EN-3.	The methodology used within this chapter to define the ALC grades follows this guidance.
Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) (Ref 12) The Code provides advice on the use of soils in construction projects including best practice guidance for handling.	An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources and is based on the guidance in the Construction Code of Practice for the Sustainable Use of Soils.
Agricultural Land Classification: Protecting the BMV (2012) (Ref 13) Summarises the ALC system, available data and methodology.	This chapter provides an assessment of agricultural land and soils which includes survey results from the ALC surveys. The surveys defined the areas of each ALC grade present such that this assessment has identified and considered implications for BMV agricultural land.
Guide to assessing development proposals on agricultural land (2021) (Ref 14) Sets out how the NPPF and the 25 Year Environment Plan aim to protect agricultural land and soils, with a focus on using ALC to inform planning decisions.	This chapter provides an assessment of agricultural land and soils which includes survey results from the ALC surveys.
A New Perspective of Land and Soil in Environmental Assessment (2022) (Ref 15) Provides guidance and an approach to assessing the impacts of development proposals on agricultural land and soil properties and functions.	The assessment methodology in this chapter follows the guidance and approach contained in this document.
Benefitting from Soil Management in Development and Construction (2022) (Ref 16) Provides guidance on Soil Resource Surveys and Soil Management Plans.	An oSRMP [**EN0110012/APP/LVS/07.14**] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources and follows the recommendations of this guidance.
Building on soil sustainability: Principles for soils in planning and construction (2022) (Ref 17) Sets out guiding principles for soils in planning and construction.	An oSRMP [**EN0110012/APP/LVS/07.**14] is submitted with the DCO Application which contains the Applicant's commitments in respect of mitigating impacts to soil resources, according with the guiding principles of this document.

5.4 Stakeholder engagement and consultation

Scoping opinion

5.4.1 An EIA Scoping Report (Appendix 1.1 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.01**]) was submitted to PINS on 11 November 2024. The EIA Scoping Opinion was issued by PINS on 19 December 2024 (Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]). A summary of key comments and how these have been addressed is presented in Table 5-5 below:

Table 5-5 Agricultural land and soils - Scoping opinion comments

Scoping opinion I.D.	Scoping opinion comment	How is this addressed/response
PINS [ID 3.1.1]	PINS stated that an assessment of the impacts to agricultural businesses should be included in the ES, including but not limited to removal of agricultural land from production, sterilisation / severance of remaining agricultural land, impacts from the loss of any grants or other financial systems and the effects of the potential requirement to switch from arable to livestock / grazing.	This issue has been discussed with PINS in March 2025. All landowners who own the land where the solar and battery equipment will be located have agreed to be involved in the Proposed Development on a voluntary basis and have therefore considered the potential effects on the overall viability of their farm businesses. Agreements will also be in place between the landowners and occupiers of the land should the Proposed Development proceed. Options Agreements have been signed and are held with the Applicant. Further information has been provided in Table 5-1.
PINS [ID 3.1.2]	PINS agrees that the assessment of loss of use of land for agriculture, including that of BMV quality for Solar Development Sites can be scoped out of the operational assessment, on the basis that this would be undertaken as part of the construction phase assessment and no further land take or intrusive works are required as part of the operational phase.	The assessment of the loss of use of land for agriculture is assessed and reported for the construction phase within Section 5.9 of this chapter.
PINS [ID 3.1.3]	PINS agrees that the loss of use of land for agriculture in the Cable Corridors can be scoped out of the construction, operation and decommissioning phases, given the short term and temporary nature of the construction and decommissioning works, and that	The effect of the loss of use of land for agriculture is scoped out for all phases of the Proposed Development in the Cable Route Corridors.

Scoping opinion I.D.	Scoping opinion comment	How is this addressed/response
	agricultural land uses can continue in the cable corridor during operation.	
PINS [ID 3.1.4]	PINS agrees that the effect on soils in the cable corridors can be scoped out of the assessment for the operational phase on the basis that the assessment of damage to soils in the cable corridor would be undertaken as part of the construction phase assessment and that no further land take or intrusive works are required as part of the operational phase.	The likely effects on soils in the Cable Route Corridors are assessed and reported for the construction phase of the Proposed Development within Section 5.9 of this chapter.
PINS [ID 3.1.5]	PINS considers that the approach to, and presentation of, baseline data collection as presented in the Scoping Report is inconsistent.	The identified inconsistencies have been addressed in the baseline and survey methodology section of this chapter (see Section 5.5).
Skipwith Parish Council Consultation Response / Opinion	In terms of land and soils challenge must be made regarding the indication given of the low quality level of soil for the Escrick area site.	The agricultural land and soil quality around Escrick has been established through detailed and semi-detailed soil and ALC surveys undertaken by two separate parties and is therefore an accurate reflection of conditions.
Eggborough Parish Council	The Proposed Development is taking over a vast amount of prime agricultural land and food producing land. The land is needed for food production.	The quantity and quality of agricultural land within the Solar Development Sites is set out in Section 5.7 of this chapter. The significance of removing this land from solely food production is assessed in Section 5.9. Most of the land is required temporarily; the loss to agriculture is reversible. The cumulative assessment of the removal of agricultural land on food security is assessed in Section 5.14.
Escrick Parish Council and Hirst Courtney and West Bank Parish Council	Concerns have been raised about the loss of reasonable quality agricultural land.	As detailed in Section 5.9 and Chapter 2: The Proposed Development (ES Volume 1) [[**EN0110012/APP/LVS/07.04**], the land use requirement is temporary.
Natural England	The ES should consider: the degree to which soils would be disturbed or damaged as part of the development; and the extent to which agricultural land would be disturbed or lost as part of this	The likely significant effects on agricultural land and soils are set out in Section 5.9. The effects on soils are assessed in Section 5.9 and mitigation measures are

Scoping opinion I.D.	Scoping opinion comment	How is this addressed/response
	development, including whether any BMV land would be impacted. Where a detailed ALC and soil survey is required, this should normally be at a detailed level. The survey can inform suitable handling methods and appropriate reuse of the soil resource where required. The ES should set out details of how adverse impacts on BMV land can be minimised through design. The ES should set out details of how any adverse impacts on soils can be avoided or minimised, demonstrate how soils will be sustainably used and managed, including in site design, and aim to minimise soil handling and maximise sustainable soil management to achieve successful after-uses and minimise off-site impacts.	secured via the oSRMP **[EN0110012/APP/LVS/07.14].** Consultation has been undertaken and agreement has been reached with Natural England on survey densities and survey results.

Statutory consultation

5.4.2 A period of statutory consultation took place between 26 June to 7 August 2025 wherein consultees were able to respond to preliminary environmental information set out in the Preliminary Environmental Information Report (PEIR). Table 5-6 outlines the statutory consultation responses relating to agricultural land and soils and how these have been addressed through the ES.

5.4.3 Responses to the Statutory Consultation are outlined in the Consultation Report **[EN0110012/APP/LVS/05.1]**.

Table 5-6 Statutory consultation comments

Consultee	Comments	How has this comment been addressed	Location of response in this ES
Burton Salmon Parish Council; Hambleton Parish Council; Hillam Parish Council; Monk Fryston Parish Council; North Duffield Parish	Concerns about significant area of BMV land being removed from food production and potential impacts for food security.	The quantity and quality of land within the Solar Development Sites is set out in Section 5.7 of this chapter. The significance of removing this land from solely food production is assessed in Section 5.9, and the cumulative assessment of the removal of agricultural land on food security is assessed in Section 5.14.	Sections 5.7, 5.9 and 5.14.

Consultee	Comments	How has this comment been addressed	Location of response in this ES
Council; North Yorkshire Council; Riccall Parish Council; South Milford Parish Council; Thorpe Willoughby Parish Council; Wistow Parish Council			
Hambleton Parish Council; Hillam Parish Council.	Concerns about permanent soil degradation, soil compaction and long term damage to the soil profile, Concerns that the land is unlikely to return to agriculture.	The effects on soils are assessed in Section 5.9 and mitigation measures are secured via the oSRMP **[EN0110012/APP/LVS/07.14].**	Section 5.9
Natural England	Ongoing engagement required around survey coverage and density in respect of different elements of the proposed development. There should be a commitment for the preparation of reinstatement, restoration and aftercare plans to return the land to the former ALC grade.	Detailed survey results have been provided to Natural England and there is agreement on survey coverage and findings. The oSRMP **[EN0110012/APP/LVS/07.14].** provides the commitment for the restoration of land to its pre-existing grade.	Section 5.5

Targeted Consultation

5.4.4 A period of targeted consultation took place between 16th October 2025 and 20 November 2025, during which feedback was encouraged to comment on minor changes to the development boundary area, in relation to access points during construction and operation; visibility splays to ensure safe sightlines for vehicles entering and exiting the Proposed Development; passing places on narrow roads; access requirements for abnormal indivisible loads (less frequent but large delivery vehicles that have wider turner circles); cable route adjustments to avoid environmental and engineering constraints; and permissive paths to enable increased public access routes within the Solar Development Sites. Table 5-7 outlines the statutory consultation responses relating to agricultural land and soils and how these have been addressed through the ES.

Table 5-7 Targeted consultation comments

Consultee	Comment	Applicant response
Natural England	Natural England recommends ALC surveys are undertaken at an early stage if the proposed changes result in additional significant land take.	The value of soil is recognised in Chapter 5: Agricultural Land and Soils (ES Volume 1) [**EN0110012/APP/LVS/06.01.05**] and the oSRMP [**EN110012/APP/LVS/07.14**]) has been developed to secure soil resources during construction, operation and decommissioning. An ALC survey Appendix 5.1: Agricultural Land Classification (ES Volume 3) [**EN0110012/APP/LVS/06.03.05.01**]) has been undertaken and the scope and findings have been discussed with Natural England.
Thorganby Parish Council	Most of the land which would be affected around the Escrick site (LVS Site 1) is classified as BMV/ALC Grade 2 (the second highest land rating in the UK), and is used for arable production rather than grazing pasture. The removal of this land from productive farming would have a negative impact on UK domestic food production and therefore UK food security – increasing reliance on overseas producers and leading to increased CO2 emissions resulting from transportation of food into the UK via sea and air freight.	As demonstrated in the ALC survey (Appendix 5.1: Agricultural Land Classification (ES Volume 3) **[EN0110012/APP/LVS/06.03.05.01]**), most of the land in Solar Development Site 1 is BMV land (54%) but it is mostly good quality Subgrade 3a land (45%) with only 9% as very good quality Grade 2 land. Food security will not be compromised by the Proposed Development (or solar energy more widely). In 2024, solar occupied around 7,300 ha of agricultural land in England, approximately half of which was in dual use for agricultural production. In the same year, 581,000 ha of arable land in England were left uncropped (source: Department for Environment, Food & Rural Affairs, Agricultural land use in England on 1 June 2024). It should also be noted that food security is not identified as an issue within the suite of Energy National Policy Statements or the NPPF. Further, the Government's UK Solar Roadmap (2024) (Ref 27) states that solar development is not considered

Consultee	Comment	Applicant response
		to compromise food security, and that climate change itself poses the greatest long-term risk to food production - a risk which the Proposed Development directly helps to address by providing a secure, low-carbon source of electricity.
Skipwith Parish Council	Disagrees with the assessment of land quality. The statement *"Of the agricultural land surveyed to date in the PEIR Assessment Area, to establish the ALC grade (Sites 1-4), around 18 ha (2%) is confirmed as Grade 1 and 147 ha (18%) has been classified as Grade 2. Approximately 286 ha (34%) is confirmed as Subgrade 3a and 383 ha (46%) is confirmed as Subgrade 3b"* is incorrect regarding Site 1. The Parish Council reject that 80% of the land in Site 1 is Subgrade 3, arguing it is better quality. The analysis is selective and self-serving. The land should remain in use for agriculture, contributing to food security.	NPS EN-3 confirms, at paragraph 2.10.25, that the Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality, and this should be used to establish the ALC grades of land. The ALC survey (Appendix 5.1: Agricultural Land Classification (ES Volume 3) **[EN0110012/APP/LVS/06.03.05.01]**) has been undertaken by experienced soil surveyors in accordance with the long-established guidelines for classifying agricultural land. The scope and findings of the ALC survey have been discussed with Natural England, and the findings presented in Chapter 5: Agricultural Land and Soils (ES Volume 1) **[EN010012/APP/LVS/06.01.05]** are an accurate reflection of agricultural land quality in the Proposed Development. Chapter 5: Agricultural Land and Soils (ES Volume 1) **[EN010012/APP/LVS/06.01.05]** considers both food security and cumulative impacts of other solar farms and developments.

Stakeholder engagement

5.4.5 The Applicant has continued engagement with Natural England, particularly in the review of soil and ALC survey scope and data, the preparation of an oSRMP and the viability of the potential opportunities for agro-energy within the Proposed Development. The outputs of the engagement undertaken to date are presented in Table 5-8.

Table 5-8 Agriculture, Land and Soils – engagement undertaken with Natural England

Date engaged	Matters raised	Natural England Response
19/02/2025	Introduction to NE soils specialist, discussion of emerging survey results and survey approaches	Natural England stated they prefer all land within the Order Limits to be surveyed, including Cable Route Corridors, where possible. They acknowledge the size of the cable search area and the possible difficulties in surveying this amount of land.

Date engaged	Matters raised	Natural England Response
		NE advised they are happy with a 1:2 ha observation density but generally their advice is where BMV is found, surveys should reduce to 1:1 ha. NE suggested they would review the findings provided and advise whether they would require LVS to revisit certain areas of the sites and repeat survey for 1:1 ha. NE advised that where (semi-permanent infrastructure is proposed (i.e. Battery Energy Storage System (BESS), substations) the land is surveyed at 1:1 ha.
21/05/2025	Updates on ALC survey progress and results; cable corridor sampling; effect of BMV on design; potential agro-energy proposals	NE acknowledged the length of the Cable Route Corridor is substantial. Consistent with advice to other proposals, NE would expect it to be surveyed. Targeted surveying was suggested as the cable route mostly shares the same soil associations as the solar sites. In response NE advised post-application surveys would be a departure from standard advice, but NE may be willing to accept. Proposed they will take away this information and provide further advice regarding sampling rate. NE queried justification for placing BESS on BMV land. Noted adjustments had been made. Other environmental constraints have to be considered. BESS area is <20 ha of BMV.
10/11/2025	Full set of survey data and mapping sent to NE for review; discussion of sampling densities for the more permanent infrastructure and in cable corridors; consideration of Statement of Common Ground and any areas of potential dispute	NE welcomed the data set and maps but had not had the opportunity to review. Sampling densities for the more permanent infrastructure at or close to one per ha, and little benefit seen in additional surveys. Other matters raised in the consultation response to PEIR (such as assessment methodology) discussed and resolved. No outstanding areas of dispute.

5.5 Methodology

Overview

5.5.1 The baseline conditions relevant to agricultural land and soils have been determined first through desk-based study and later refined through site surveys.

Baseline methodology

Desktop sources

5.5.2 The following desktop sources have been used to inform the existing baseline conditions of the Study Area:

1) Mapping of bedrock and superficial geology (Ref 18);
2) Mapping of soil associations (Ref 19);
3) Soil survey bulletin (Ref 20);
4) Provisional ALC mapping (Ref 21); and
5) Previous detailed ALC survey data covering approximately 77 ha of Solar Development Site 1 (Ref 22).

Survey

5.5.3 The following surveys have been undertaken and used to inform the existing baseline conditions:

1) Soil and ALC surveys across all of Solar Development Sites 1, 2, 3, 4, 6, 7 and 8, undertaken at a density of at least one observation per 2 ha, as agreed with Natural England; and
2) Representative soil and ALC surveys within the Cable Route Corridors.

Sensitive Receptors

5.5.4 The sensitive receptors identified for inclusion in the agricultural land and soils assessment are:

1) Agricultural land, including that of BMV quality; and
2) Soil resources.

Assessment methodology

5.5.5 The assessment methodology is based on determining the sensitivity of, and magnitude of change on, the relevant receptors of agricultural land and soil resources.

Assigning receptor sensitivity

5.5.6 The sensitivity criteria for agricultural land and soil receptors are taken from guidance issued by the Institute of Environmental Management and Assessment (IEMA) (now known as the Institute of Sustainability and Environmental Professionals (ISEP)) (Ref 15) and are set out in Table 5-9.

Table 5-9 Criteria for determining receptor sensitivity

Sensitivity	Agricultural Land	Soil Resources
Very high	Grades 1 and 2	Peat soils
High	Subgrade 3a	Soils with high clay and silt fractions (clays, silty clays, sandy clays, heavy silty clay loams and heavy clay loams) and organo-mineral and peaty soils where the Field Capacity Days (FCD) are 150 or greater. Medium-textured soils (silt loams, medium silty clay loams, medium clay loams and sandy clay loams) where the FCDs are 225 or greater. All soils in wetness class (WC) V or VI.
Medium	Subgrade 3b	Clays, silty clays, sandy clays, heavy silty clay loams, heavy clay loams, silty loams and organo-mineral and peaty soils where the FCDs are fewer than 150. Medium-textured soils (silt loams, medium silty clay loams, medium clay loams and sandy clay loams) where FCDs are fewer than 225. Sands, loamy sands, sandy loams and sandy silt loams where the FCDs are 225 or greater or are in WCIII and WCIV.
Low	Grades 4 and 5	Soils with a high sand fraction (sands, loamy sands, sandy loams and sandy silt loams) where the FCDs are fewer than 225 and are in WCI and II.

Assigning magnitude of impact

5.5.7 The magnitude of impact is taken from the ISEP guidance (Ref 15) and set out in Table 5-10. The soil functions referred to in the definition include food and fibre production; environmental interaction with water and air; support of ecological habitats and biodiversity; support for the landscape; protection of cultural heritage; providing raw materials; and providing a platform for construction.

Table 5-10 Criteria for determining magnitude of impact

Magnitude	Agricultural Land and Soils
High	**Permanent, irreversible loss** of one or more soil functions or soil volumes (including permanent sealing or land quality downgrading), over an area of more than 20 ha or loss of soil-related features as advised by other environmental specialists (including effects from temporary developments*) or

Magnitude	Agricultural Land and Soils
	Potential for **permanent improvement** in one or more soil functions or soil volumes due to remediation or restoration over an area of more than 20 ha, or gain in soil-related features as advised by other environmental specialists (including effects from temporary developments*).
Medium	**Permanent, irreversible loss** of one or more soil functions or soil volumes, over an area of between 5 and 20 ha or loss of soil-related features as advised by other environmental specialists (including effects from temporary developments*) or Potential for **improvement** in one or more soil functions or soil volumes due to remediation or restoration over an area of between 5 and 20 ha, or gain in soil-related features as advised by other environmental specialists.
Low	**Permanent, irreversible loss** over less than 5 ha or a **temporary, reversible** loss of one or more soil functions or soil volumes, or temporary, reversible loss of soil-related features as advised by other environmental specialists or Potential for **permanent improvement** in one or more soil functions or soil volumes due to remediation or restoration over an area of less than 5 ha or a **temporary improvement** in one or more soil functions due to remediation or restoration or off-site improvement, or temporary gain in soil-related features as advised by other environmental specialists.
Negligible	No discernible loss or reduction or improvement of soil functions or soil volumes that restrict current or proposed land use.

5.5.8 The asterisk included in the High and Medium categories in the ISEP guidance states that temporary developments can result in a permanent impact if resulting disturbance or land use changes cause permanent damage to soil-related features beyond food production, which is not the case for the Proposed Development.

Significance criteria

5.5.9 The receptor sensitivity and the magnitude of impact are then combined to determine the overall significance of the effect following to the standard significance criteria, which is adapted from the standard provided in Chapter 4: Approach to EIA (ES Volume 1) [**EN0110012/APP/LVS/06.01.04**] as set out Table 5-11. Effects that are Major or Moderate are considered to be significant in EIA terms.

Table 5-11 Environmental effects matrix

		Magnitude of Impact			
		High	Medium	Low	Negligible
Sensitivity of Resource	Very high	Major	Major	Moderate	Minor
	High	Major	Moderate	Minor	Negligible
	Medium	Moderate	Minor	Minor	Negligible
	Low	Minor	Negligible	Negligible	Negligible

5.6 Assumptions and limitations

5.6.1 The ALC and soil survey of the Cable Route Corridor comprised representative sampling of soil types rather than a detailed survey programme, given that the impacts on agricultural land from installing the cables are short-term, reversible and agreed to be scoped out of this assessment.

5.7 Baseline conditions

Existing baseline conditions

5.7.1 The Solar Development Sites 1-4 and 6-8 extend to approximately 900 ha of mostly agricultural land, primarily in arable use.

5.7.2 The Solar Development Sites 1-4 and 8 are mainly underlain by bedrock belonging to the Sherwood Sandstone Group. Mudstone and siltstone of the Roxby Formation is mapped in the west of Solar Development Site 2, all of Solar Development Site 3, the north of Solar Development Site 4 and the east of Solar Development Site 6. The west of Solar Development Site 6 and all of Solar Development Site 7 is underlain by bedrock of the Brotherton Formation, which is a dolomitic limestone.

5.7.3 Superficial deposits cover the bedrock across most of the Solar Development Sites 1-4 and 6-8 and mainly belong to the Hemingbrough Glaciolacustrine Formation and the Breighton Sand Formation. Gravelly sandy clay of the Escrick Moraine Member of the Vale of York Formation is mapped in the north-west of Solar Development Site 1.

5.7.4 The mapped soil information shows seven associations (amalgamations of similar soil types) present across the Solar Development Sites 1-4 and 6-8. In order of prevalence these are:

1) Sessay – generally fine and coarse loamy soils affected by groundwater; variable WC and ALC grades;
2) Foggathorpe 2 – clayey and fine loamy over clayey with slowly permeable subsoils and seasonal waterlogging; imperfectly to poorly drained (WC III – IV), with a typical soil profile unlikely to be BMV land;
3) Enborne – fine loamy and clayey affected by groundwater; imperfectly to poorly drained (WC III – IV), with a typical soil profile unlikely to be BMV land;
4) Everingham – fine sandy soils overlying clay; well or moderately well drained (WC I – II) with a typical soil profile likely to be BMV;
5) Bishampton 1 – fine loamy soils with slowly permeable subsoils; moderately well drained (WC II) with a typical soil profile likely to be BMV;
6) Arrow – coarse loamy soils affected by groundwater; well to imperfectly drained (WC I – III) with a typical soil profile likely to be BMV; and

7) Blackwood – sandy and coarse loamy soils, variably affected by groundwater; variable WC (I – IV) but with a typical soil profile likely to be BMV.

5.7.5 In addition, the Wigton Moor association is mapped in areas of the Cable Route Corridor between Solar Development Sites 1 and 2 (Cable Route Corridor 1-4, 1-4a and 2-4). These soils are similar to the Sessay association above and are associated with river terrace deposits in major river valleys. The Romney association is also mapped in the vicinity of the River Ouse, comprising deep, stoneless, permeable, calcareous coarse and fine silty soils. The Newport 1 association is mapped around Thorpe Willoughby, also comprising deep, well drained sandy and coarse loamy soils. All are likely to give rise to BMV quality land.

5.7.6 At the western end of the Cable Route Corridor that extends west from Solar Development Site 4 (Cable Route Corridor 4-POC), the Newport 1 association is mapped, similarly comprising deep, well drained sandy and coarse loamy soils.

5.7.7 The desktop Provisional ALC mapping shows most of the agricultural land within Solar Development Sites 1-4 and 6-8 to be Grade 2 which is very good quality land. Good to moderate quality Grade 3 land is mapped in Solar Development Site 1, south of Birkin Road in Solar Development Site 4, at Solar Development Sites 6 and 7 and in the north of Solar Development Site 8.

5.7.8 Between Solar Development Sites 1 and 2, the Cable Route Corridor passes through a large expanse of provisionally-mapped Grade 2, intersected by Grade 1. The very south of the Cable Route Corridor is also provisionally mapped as Grade 2. The very north, and around Hambleton, is provisionally mapped as Grade 3.

5.7.9 However, as acknowledged in Natural England's Technical Information Note (TIN) 049 (Ref 13), the Provisional ALC data is not suitable for assessing the quality of individual sites and site surveys are required to establish the definitive grade.

Solar Development Site 1

5.7.10 The survey data for Solar Development Site 1 has identified two main soil types in roughly equal proportions, and one minor type. One of the main soil types comprises clay throughout. The subsoils are slowly permeable, the profiles in WC III and the limitation to ALC Subgrade 3b due to soil wetness.

5.7.11 The second main soil type found mainly in the south of Solar Development Site 1 is coarse-textured, including topsoils of sandy loam or loamy sand with similar or sandy subsoils throughout. Many of these profiles are located within Flood Zones 2 and 3 and show evidence of periodic inundation by groundwater. The profiles are in WC I or II and are limited accordingly by droughtiness and/or wetness to Grade 2 or Subgrade 3a.

5.7.12 The minor soil type identified mostly includes sandy clay loam topsoil, overlying variably clayey or sandy silt loam subsoils. The subsoils are slowly permeable in

all profiles which are moderately or imperfectly drained in WC II or III and limited by wetness to Grade 2 or Subgrade 3a respectively.

5.7.13 The ALC of Solar Development Site 1 is shown in Table 5-12 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**], and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-1.

Table 5-12 ALC of Solar Development Site 1

Grade	Description	Hectares	%
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	31.9	9
Subgrade 3a	Good quality	155.5	45
Subgrade 3b	Moderate quality	152.1	44
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		5.3	2
Total		**344.8**	**100**

Plate 5-1 ALC in Solar Development Site 1

Solar Development Site 2

5.7.14 Survey data has identified three soil types. The predominant soil type includes mainly heavy clay loam topsoil and upper subsoil overlying coarse-textured subsoils. The soil profiles are in WC I and are limited by wetness to Grade 2. Similarly well-drained profiles with sandy subsoils but sandy silt loam topsoil textures have no limitation to the ALC and are in Grade 1.

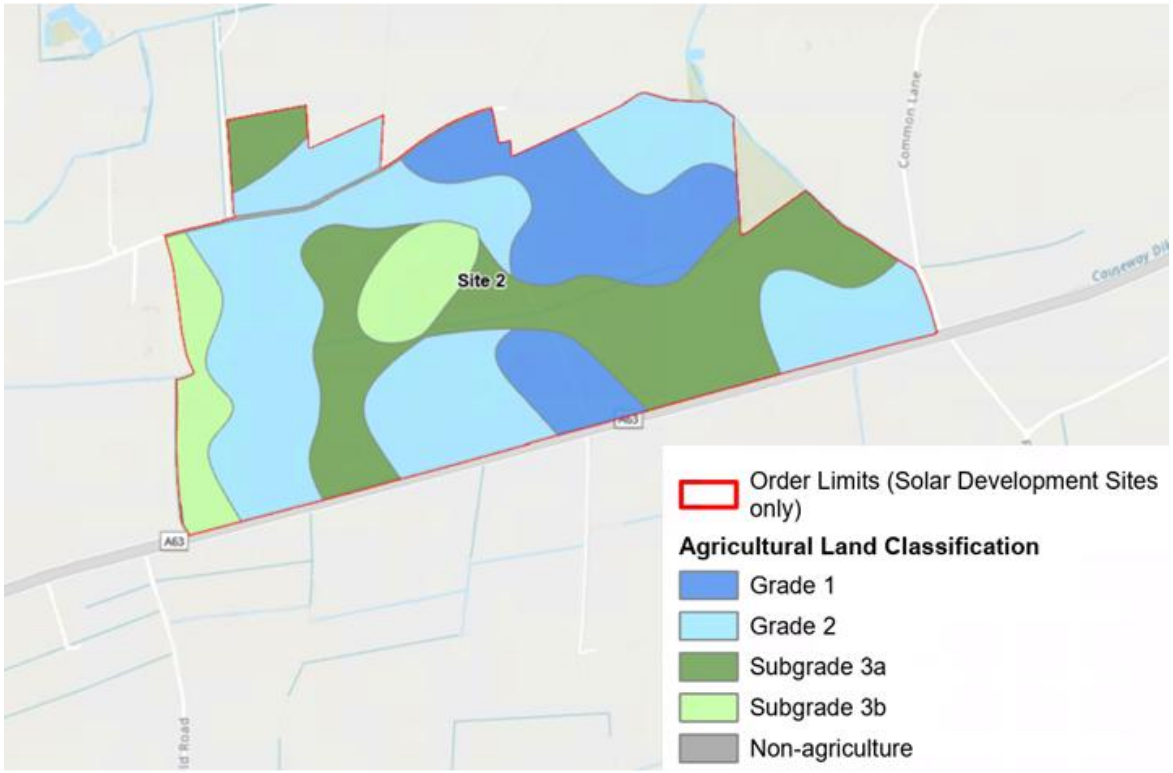
5.7.15 Profiles with heavy clay loam or occasionally clay topsoils overlying slowly permeable clayey upper subsoils and passing to variable, but mostly permeable lower subsoils are in WC II or III and are limited by wetness to Subgrade 3a or Subgrade 3b respectively.

5.7.16 The ALC of Solar Development Site 2 is shown in Table 5-13 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-2.

Table 5-13 ALC of Solar Development Site 2

Grade	Description	Hectares	%
Grade 1	Excellent quality	15.2	18
Grade 2	Very good quality	35.6	43
Subgrade 3a	Good quality	23.6	28
Subgrade 3b	Moderate quality	8.5	10
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		0.5	1
Total		**83.3**	**100**

Plate 5-2 ALC in Solar Development Site 2



Solar Development Site 3

5.7.17 Soil profiles in most of Solar Development Site 3 comprise heavy clay loam topsoil over heavy clay loam or sandy clay loam upper subsoils, with variable lower subsoils of heavy clay loam, sandy clay loam and sand. These are mostly WC II and limited to Subgrade 3a on wetness. Where there is a slowly permeable clay upper subsoil, the profile is WC III and the land classified as Subgrade 3b. In the north, the soils comprise heavy clay loam or medium clay topsoils over similar upper subsoil and passing to sandy loam or sand lower subsoils. These profiles are assessed as WC I or II and are limited to Grade 2 by wetness.

5.7.18 The ALC of Solar Development Site 3 is shown in Table 5-14 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-3.

Table 5-14 ALC of Solar Development Site 3

Grade	Description	Hectares	%
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	5.0	25
Subgrade 3a	Good quality	13.7	69
Subgrade 3b	Moderate quality	1.2	6
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0

Grade	Description	Hectares	%
Non-agricultural		0.0	0
Total		**19.9**	**100**

Plate 5-3 ALC in Solar Development Site 3

Solar Development Site 4

5.7.19 There are two main soil types in Solar Development Site 4. The predominant soil includes clay topsoils, or occasionally heavy clay loam or sandy clay loam, which directly overlies slowly permeable clay subsoils. The profiles show evidence of prolonged waterlogging from the topsoil and are in WC III with a wetness limitation to Subgrade 3b, other than where the topsoil is sandy clay loam, resulting in a wetness limitation to Subgrade 3a. Profiles are also affected by flood risk and/or wetness due to groundwater.

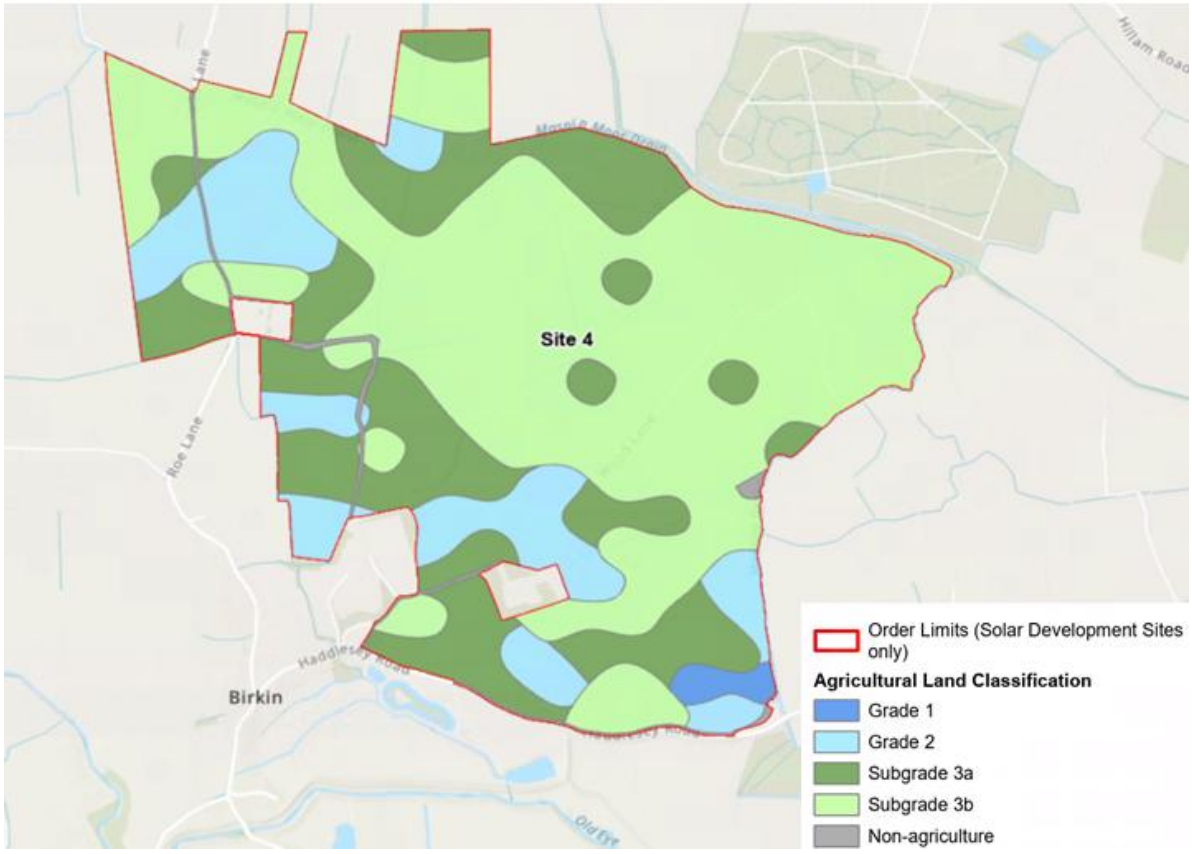
5.7.20 In the south and west of Solar Development Site 4, the second soil type mainly includes a sandy clay loam topsoil, with some medium sandy loam. The subsoil is most commonly medium sandy loam with occasional loamy medium sands or sandy clay loams. The soil profiles are permeable throughout, however are also located within Flood Zones and display evidence of prolonged waterlogging throughout the profiles. The soils are mostly in WC II and limited by wetness to Grade 2. The Grade 1 quality land in the south of Solar Development Site 4 is associated with the profiles that have medium sandy loam textures throughout the profile, and the profiles of Subgrade 3a quality are generally associated with the loamy sand subsoils, which result in an overarching droughtiness limitation, rather than wetness.

5.7.21 The ALC of Solar Development Site 4 is shown in Table 5-15 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-4.

Table 5-15 ALC of Solar Development Site 4

Grade	Description	Hectares	%
Grade 1	Excellent quality	2.8	1
Grade 2	Very good quality	43.3	15
Subgrade 3a	Good quality	77.1	27
Subgrade 3b	Moderate quality	156.8	56
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		3.8	1
Total		**283.8**	**100**

Plate 5-4 ALC of Solar Development Site 4



Solar Development Site 6

5.7.22 There are three main soil types found in Solar Development Site 6. The mapped soil information shows the Foggathorpe 2 association in the north and the Sessay association in the south. The survey data shows clay loam or clay topsoils over

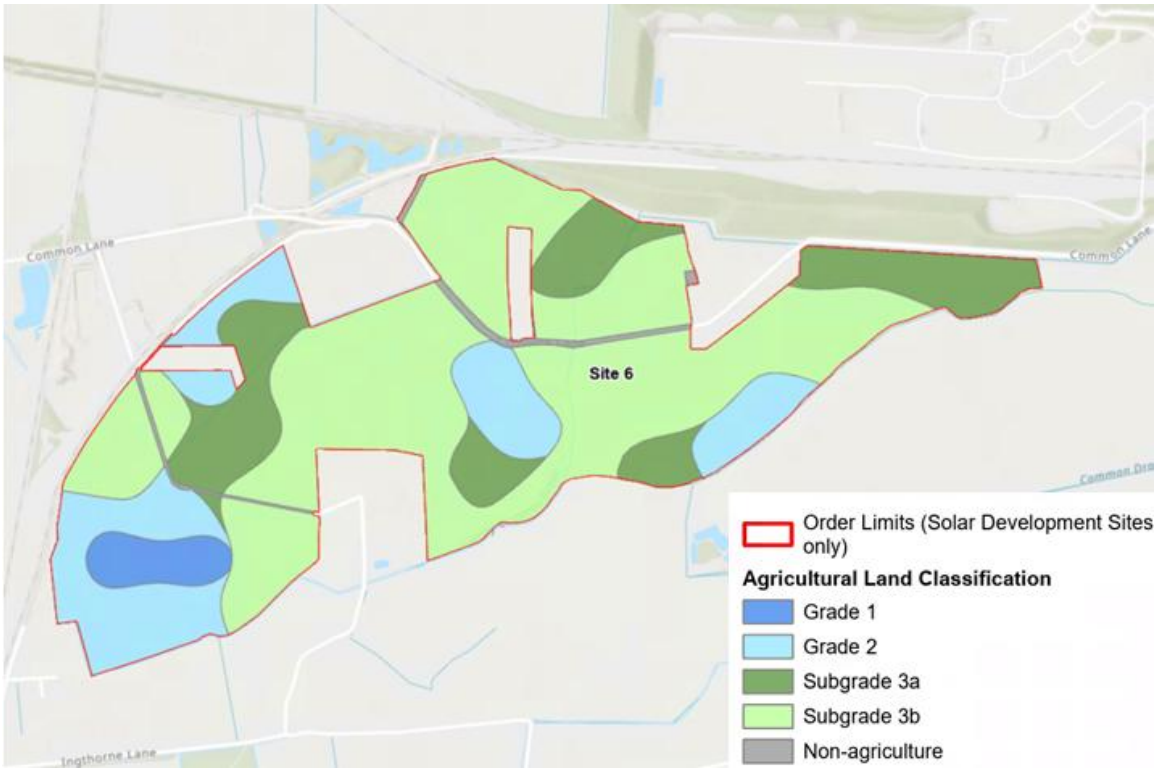
deep clay with slowly permeable subsoils in the north, which are within WC III and classified as predominantly Subgrade 3b. Soils in the centre of Solar Development Site 6 comprise clay loam or clay topsoil and upper subsoil, which becomes sandy with depth, but are mostly in WC III and classified as Subgrade 3b. In the south-west, the soils comprise deep clay loam or silty clay loam textures which are permeable and in WC I and II and classified as mostly Grade 2.

5.7.23 The ALC of Solar Development Site 6 is shown in Table 5-16 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-5.

Table 5-16 ALC of Solar Development Site 6

Grade	Description	Hectares	%
Grade 1	Excellent quality	3.2	3
Grade 2	Very good quality	19.6	20
Subgrade 3a	Good quality	19.0	19
Subgrade 3b	Moderate quality	56.2	56
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		1.6	2
Total		**99.6**	**100**

Plate 5-5 ALC of Solar Development Site 6



Solar Development Site 7

5.7.24 Solar Development Site 7 is mapped as having soils of the Foggathorpe 2 association. The survey data has shown clay loam or clay topsoils over deep clay with slowly permeable subsoils in the north; deep, sandy profiles in the south-west and clay loam or clay topsoils and upper subsoils which become sandy with depth in the south-east.

The ALC of Solar Development Site 7 is shown in Table 5-17 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-6.

Table 5-17 ALC of Solar Development Site 7

Grade	Description	Hectares	%
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	1.4	16
Subgrade 3a	Good quality	1.5	18
Subgrade 3b	Moderate quality	5.7	65
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		0.1	1
Total		**8.7**	**100**

Plate 5-6 ALC of Solar Development Site 7

Solar Development Site 8

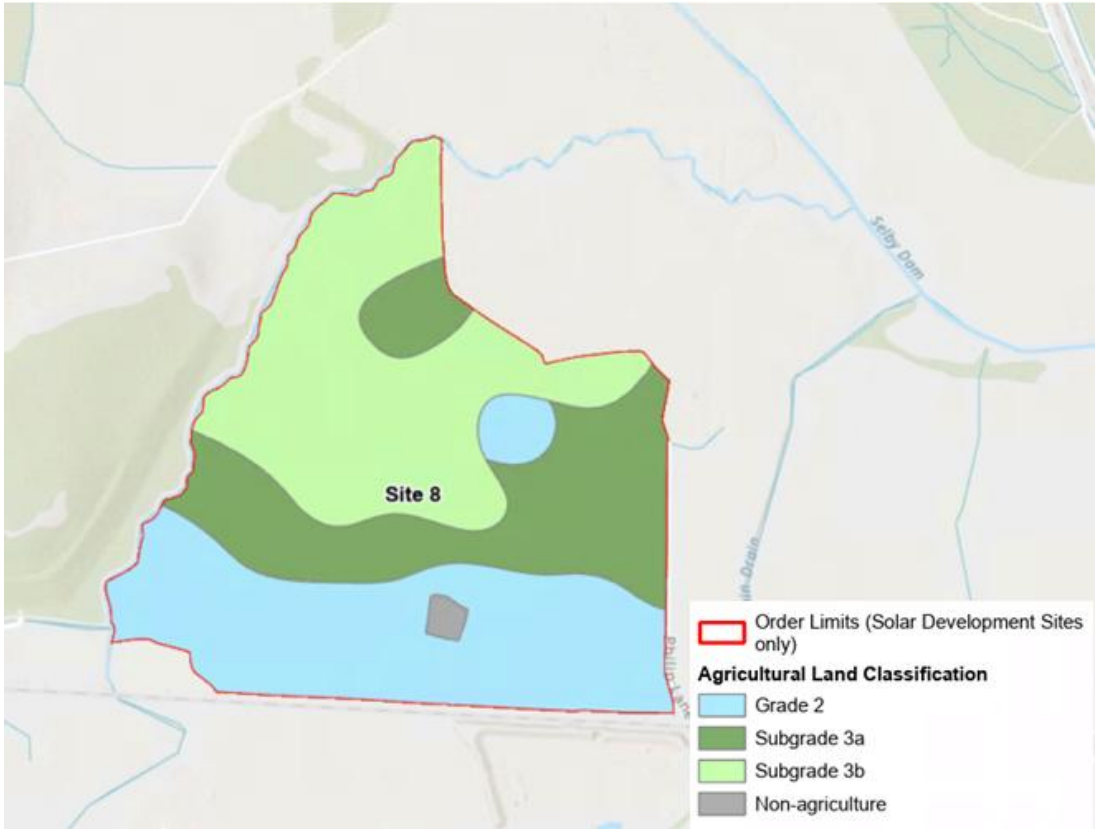
5.7.25 Solar Development Site 8 is mapped as having soils of the Foggathorpe 2 association in the north and Sessay association in the south. Most of the soils in Solar Development Site 8 are clay loam or clay over deep clay with slowly permeable subsoils, with some silty clay textures also present. These soils are mostly WC III and classified as Subgrade 3b. The soils in the south comprise deep, sandy profiles which are well drained but can be subject to a fluctuating groundwater table which reduces the WC. These soils are however mostly limited to Grade 2 or 3a by soil droughtiness.

5.7.26 The ALC of Solar Development Site 8 is shown in Table 5-18 and on Figure 5.2: Agricultural Land Classification (ES Volume 2) [**EN0110012/APP/LVS/06.02.05.02**] and an extract of Figure 5.2 (not to scale) is shown below in Plate 5-7.

Table 5-18 ALC of Solar Development Site 8

Grade	Description	Hectares	%
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	21.6	36
Subgrade 3a	Good quality	16.5	27
Subgrade 3b	Moderate quality	21.5	36
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		0.4	1
Total		**60.0**	**100**

Plate 5-7 ALC of Solar Development Site 8



Cable Route Corridor

5.7.27 Deep, sandy soils are prevalent within the Cable Route Corridor, and generally associated with BMV land, with clay loam or clay over deep clay with slowly permeable subsoils also identified as generally identified with moderate quality Subgrade 3b land. The locations of each soil type align well with the mapped information.

Table 5-19 ALC of the Cable Route Corridors

Grade	Description	Hectares	%
Grade 1	Excellent quality	9.8	3
Grade 2	Very good quality	12.3	4
Subgrade 3a	Good quality	144.1	44
Subgrade 3b	Moderate quality	113.7	34
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		48.5	15
Total		**328.4**	**100**

Future baseline

5.7.28 The future baseline for agricultural land and soils is expected to indefinitely remain as existing in the absence of the Proposed Development.

5.7.29 This is because the ALC is a reflection of long-term conditions, and is a relative scale based on set parameters. Physical soil properties vary on timescales of decades (or millennia) rather than years.

5.8 Embedded and good practice mitigation and enhancement measures

Embedded mitigation

5.8.1 Embedded measures are modifications to the design of a scheme, made during the pre-application phase, that are an inherent part of the design and do not require additional action to be taken. Good practice measures are standard approaches and actions undertaken to avoid or reduce environmental impacts in line with best practice guidance and legislative requirements.

5.8.2 Measures for the Proposed Development relevant to agricultural land and soils already committed to include:

1) Construction:
   a) The siting of infrastructure on lower quality agricultural land where this does not conflict with other environmental objectives or affect delivery of the project benefits, as explained in Appendix 3.1: Site Selection Report (ES Volume 3) [**EN0110012/APP/LVS/06.03.03.01**].
   b) The preparation of detailed SRMP(s) in substantial accordance with the oSRMP [**EN0110012/APP/LVS/07.14** including adopting and implementing good practice measures to minimise damage to soils that remain in place and those that are stripped, stockpiled and reinstated; minimise soil carbon losses; maintain water infiltration; and enhance soil biodiversity.
   c) The reinstatement of land in substantial accordance with the oSRMP [**EN0110012/APP/LVS/07.14**] including the replacement of soils in the cable route corridor to replicate the original soil profile and enable agricultural uses to continue following the installation of the cables.
   d) Sustainable urban drainage systems (SuDS) will be provided at source, ensuring that surface water run-off is managed consistently with existing site conditions.
2) Operation:
   a) Detailed OEMP(s) to include soil management measures consistent with the oSRMP and approved construction phase detailed SRMPs for any maintenance, replacement or management operations affecting soil.
3) Decommissioning:

a) Detailed DEMP(s) to include soil management measures consistent with the oSRMP and approved construction phase detailed SRMPs and approved detailed OEMPs. for any removal of infrastructure, within the Solar Development Sites, affecting soil.
b) The mode of removing the Interconnecting Cables and Grid Connection Cables decommissioning would be dependent upon government policy and good practice at that time and will be covered within the detailed DEMP(s).

Good practice measures

5.8.3 The oSRMP [**EN0110012/APP/LVS/07.14**] sets out good practice measures for the handling of soil resources and includes guidance on determining appropriate soil handling conditions which will be followed through to the detailed SRMP(s).

Management plans

5.8.4 In addition to the oSRMP [**EN0110012/APP/LVS/07.14**], other management plans relevant to agricultural land and soils include the:

1) Outline Construction Environmental Management Plan (oCEMP) [**EN0110012/APP/LVS/07.02**];
2) Outline Landscape and Ecological Management Plan (oLEMP) [**EN0110012/APP/LVS/07.05**]; and
3) Outline Decommissioning Environmental Management Plan (oDEMP) [**EN0110012/APP/LVS/07.04**].

5.8.5 These management plans incorporate embedded and good practice measures, as well as any further mitigation that arises out of the EIA process.

5.8.6 Outline versions of these management plans are submitted alongside the ES as part of the DCO Application to secure the commitments within each assessment. An appropriate Requirement is included in the DCO to ensure detailed management plans will be developed to full versions substantially in accordance with the outline management plans. The detailed plans will be submitted to North Yorkshire Council (NYC) for approval prior to commencement of the relevant phase of development and the measures described in them are implemented.

5.9 Assessment of likely impacts and effects

5.9.1 This section presents the results of the assessment of likely significant effects with the embedded and good practice mitigation measures, described in the previous section, in place.

Construction effects

5.9.2 Potential impacts relating to agricultural land and soils are the loss of the use of land for agriculture and damage to soil resources.

5.9.3 Most of the Solar Development Sites would accommodate the panels which would be secured by metal posts driven into the ground, other than where archaeological protection is required, in which case non-ground penetrative techniques would be used (see Figure 2.5 in ES Volume 2 **[EN0110012/APP/LVS/06.02.02.05]**). This is assessed as a temporary use of agricultural land, with the soil resource remaining largely undisturbed.

5.9.4 Within the Solar Development Sites there would also be temporary Solar Development Site Construction Compounds (including portacabins, parking areas, storage compounds, temporary hardstanding) and temporary laydown areas. These elements will be removed on completion of construction.

5.9.5 Temporary Cable Construction Compounds and laydown areas are also proposed along the Cable Route Corridor and will be removed on completion of construction. These components will require the temporary disturbance of the soil resource, namely topsoil stripping, storage and reinstatement, and the temporary loss of agricultural use in the construction phase.

5.9.6 The built aspects of the Proposed Development that would require long-term soil sealing are likely to include:

1) a BESS within a compound of up to 10.5 ha within Solar Development Site 2;
2) three 275 kilovolt (kV) substations, one within a 1 ha area in Solar Development Site 1 and two within compound areas of 3.5 ha each in Solar Development Sites 2 and 4;
3) Conversion Units which incorporate the inverters, transformers and switchgear necessary to manage the electricity generated by the Solar PV panels. These would either be standalone equipment (Disaggregated) or housed within a container (Integrated). Both options would sit on a concrete foundation slab, strips or footings and a levelling layer of aggregate or a concrete plinth set atop the topsoil where non-ground-penetrative works are required. The Integrated Conversion Units would have maximum dimensions of 15 m x 5 m (75 m^2) and sit on foundations of up to 16 m x 6 m (96 m^2); these dimensions are used in this assessment. For the purposes of assessment within the ES the 33 kV Switch rooms, and spare parts storage buildings are considered to be interchangeable with the Conversion Units and have the same parameters;
4) accesses for the BESS Area and substations, with a maximum 6 m width (8 m at passing places) constructed of asphalt over a levelled substrate; internal access tracks in the Solar Development Sites would have a maximum width of 3.5 m (6 m at passing places) constructed of hardcore or gravel over a levelled substrate.

Agricultural Land

5.9.7 The land would be removed from primary agricultural production at the start of the construction phase and, as a worst-case assumption, is expected to remain

largely unavailable for agricultural production during the lifetime of the Proposed Development. As this occurs at the commencement of the construction phase, it is considered an impact arising from the construction rather than the operation of the Proposed Development.

5.9.8 The land within the Solar Development Sites amounts to approximately 900 ha, ranging in quality from Grade 1 to Subgrade 3b. The distribution of ALC grades within all the Solar Development Sites is shown in Table 5-20.

Table 5-20 ALC of Solar Development Sites 1-4 and 6-8

Grade	Description	Hectares	%
Grade 1	Excellent quality	21.1	2
Grade 2	Very good quality	158.3	18
Subgrade 3a	Good quality	307.0	34
Subgrade 3b	Moderate quality	401.8	45
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
Non-agricultural		11.7	1
Total		899.9	100

5.9.9 Within the total:

1) Approximately 179.4 ha (20%) is confirmed as Grades 1 and 2 which is a resource of very high sensitivity;
2) Approximately 307 ha (34%) is confirmed as Subgrade 3a which is a resource of high sensitivity; and
3) Approximately 402 ha (45%) is confirmed as Subgrade 3b which is a resource of medium sensitivity.

5.9.10 As the Proposed Development is temporary, albeit long-term (lifetime of the Proposed Development), and reversible, the ISEP guidance (Ref 15) indicates that the magnitude for the change of use of agricultural land for the panel areas, including all temporary construction elements and access tracks required, is low.

5.9.11 The Proposed Development would therefore have a direct, long-term (lifetime of the Proposed Development), temporary and reversible:

1) **Moderate adverse** effect on Grades 1 and 2 agricultural land, which is **significant;**
2) **Minor adverse** effect on Subgrade 3a agricultural land, which is **not significant;** and
3) **Minor adverse** effect on Subgrade 3b agricultural land, which is **not significant**.

5.9.12 The built infrastructure components required for the operation of the Proposed Development would require the long-term removal of land from agricultural use. As noted in Chapter 2: The Proposed Development (ES Volume 1)

[**EN0110012/APP/LVS/06.01.02**], it is assumed that all fixed infrastructure will be removed at decommissioning, including the BESS, and the land returned to its current use. Therefore, the land requirement for the following components is temporary, albeit long-term (estimated at around 60 years, the anticipated lifespan of the Proposed Development).

5.9.13 The location of the BESS (up to 10.5 ha) in Solar Development Site 2 comprises land in Grades 1 and 2, including that required for the access. This land is of very high sensitivity which would be subject to a medium magnitude of impact, resulting in a **Major adverse (Significant)** effect.

5.9.14 The 275 kV substation (of up to 1 ha) location in Solar Development Site 1 is in an area confirmed as Subgrade 3b quality, including the land required for the access. This is a resource of medium sensitivity subject to a low magnitude of change, resulting in a **Minor adverse** (**Not Significant**) effect.

5.9.15 The 275 kV substation (of up to 3.5 ha) in Solar Development Site 2 comprises land in Grade 2 and Subgrade 3a, including the land required for the access. This land is of high and very high sensitivity which would be subject to a low magnitude of impact, resulting in a **Minor to Moderate adverse** (**Not Significant**) effect.

5.9.16 The 275 kV substation (of up to 3.5 ha) location in Solar Development Site 4 comprises land in Grade 2 and Subgrade 3a, including the land required for the access. The BMV land is a resource of high to very high sensitivity and would be subject to a low magnitude of impact, resulting in a **Minor to Moderate** adverse (**Not Significant**) effect.

5.9.17 The Proposed Development would include conversion units, with the illustrative design indicating that approximately half (extending to a maximum of 0.6 ha) could be located on BMV land, mostly in Grades 2 and 3a, although the number and locations of these are subject to change in the detailed design. The BMV land is a resource of high to very high sensitivity which would be subject to a low magnitude of impact, resulting in a **Minor to Moderate adverse (Not Significant**) effect.

5.9.18 Within the wider context, Selby District contains a substantially higher than average proportion of BMV land, with the area of BMV land estimated at approximately 46,000 ha or 80% of all agricultural land in the District. Natural England's TIN049 (Ref 13) estimates that BMV land accounts for 42% of all agricultural land in England which is a similar proportion to the wider Yorkshire and Humber region (43%), which is estimated to contain approximately 603,000 ha of BMV land within a total agricultural area of 1,393,000 ha in the region.

5.9.19 The 486 ha of BMV land within the Proposed Development (of which approximately 19.1 ha would be required for the permanent elements of the Proposed Development involving soil sealing) would represent approximately 1% of the likely BMV land in Selby District and 0.08% of the likely BMV land in the Yorkshire and Humber Region. Given the estimate in the 2024 Written Ministerial Statement (**Error! Reference source not found.**) that, even under the most ambitious scenarios the total area of agricultural land used for solar panels would

occupy less than 1% of the UK's agricultural land, these proportions do not represent a significant use of BMV land in the wider regional context.

Soil resources

5.9.20 Construction impacts on soils relate to the potential damage (from compaction) to soils from installing solar panels and cables, and damage to soils that need to be stripped and stored for access tracks, compounds and on-site infrastructure including BESS and substations. There are also a number of shallow scrapes and islands proposed in the south of Solar Development Site 1.

5.9.21 As there is a commitment to return all land to landowners on decommissioning, it will be necessary to retain all excavated soil resources on site, preferably locally to their origin so that they are readily identifiable for reinstatement. The oSRMP sets out the principles for retaining and storing soil resources, regardless of whether they are required for reinstatement in the short-term (as with construction compounds) or at decommissioning (with the built elements of the Proposed Development and the scrapes in Solar Development Site 1).

5.9.22 The sandy and coarse loamy soil types identified are a resource of low sensitivity. The sandy clay loams and medium clay loam textures are of medium sensitivity. The heavy loamy and clayey textures identified are a resource of high sensitivity.

5.9.23 Adherence to the detailed SRMP(s) and following good practice would ensure that the magnitude of change to soil resources subject to temporary disturbance remains low. The detailed SRMP(s), in line with the oSRMP, would describe in more detail the soils in the Solar Development Sites and Cable Route Corridor, characterise the soil types, describe the impacts on soils, and set out appropriate methods of soil handling, storage and reinstatement, and monitoring procedures. Remediation of compaction and any other effects resulting from soil sealing would be included in the soil management measures for the decommissioning phase, as secured in the oDEMP [**EN0110012/APP/LVS/07.04**]. An oSRMP is included with the DCO Application [**EN0110012/APP/LVS/07.14**].

5.9.24 With a low magnitude of change, the Proposed Development would have the following direct, short-term effects in the Solar Development Sites and the Cable Route Corridors:

1) **Moderate adverse** effect on heavy-textured soils, which would be **Significant**;
2) **Minor adverse** effect on medium-textured soils, which would be **Not significant**; and
3) **Negligible adverse** effect on the coarse-textured soils, which would be **Not significant**.

Operational effects

5.9.25 Although the EIA Scoping Opinion (Appendix 1.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.01.02**]) agreed that the main effects on agricultural land and soils would occur as a consequence of construction and are therefore

to be assessed and reported in the construction phase, there would also be effects on soil health that would accrue during the operational phase of the Proposed Development. Any maintenance works or replacement of components during the operational phase are not likely to give rise to significant effects and are scoped out of the assessment as such activities are not expected to give rise to soil movements, and impacts on the soil resource would be managed through soil management measures in the OEMP, which would reflect relevant principles of the oSRMP [**EN0110012/APP/LVS/07.14**].

5.9.26 It is well established that soil health improves when arable land is converted to permanent pasture, with increases in soil organic matter (SOM), soil carbon and soil moisture, and farmers are encouraged by the Government's Sustainable Farming Incentive scheme (Ref 24) to convert arable land to grassland with low fertiliser input.

5.9.27 Empirical evidence of the soil health benefits of converting arable land to pasture is also available from the analysis of 25,000 soil samples collected between June 2023 and May 2024 by one of the UK's leading providers of agronomic analysis (Ref 25).

5.9.28 The 2023-2024 soil summary found significant contrasts in SOM levels between arable and grassland soils, with grassland soils having an average SOM twice that of arable soils, and a wider variability. SOM enhances nutrient cycling, improves soil structure and boosts water retention, which makes grassland soils healthier, more resilient and a substantial carbon sink.

5.9.29 The improvements to soil health during the operational phase of the Proposed Development would represent a high magnitude of change to all sensitivities of soils as there would be the potential for improvement in more than one soil function over an area of 900 ha, resulting in at least a temporary, **moderate beneficial** effect on soil resources, which is **significant**.

Decommissioning effects

5.9.30 The effect on agricultural land quality and soils at decommissioning would be influenced by the extent of disturbance caused by the removal of the solar panels and fixed above-ground infrastructure. It is currently proposed in Chapter 2: The Proposed Development (ES Volume 1) **[EN0110012/APP/LVS/06.01.02]** that underground cables would be left in-situ. Therefore, the decommissioning effects would be less than those likely to occur during the construction phase.

5.9.31 The effects on soils are likely to be less than those reported for the construction phase, subject to relevant good practice measures in place at the time of decommissioning managed through soil management measures in the detailed DEMP(s), which would reflect relevant principles of the oSRMP [**EN0110012/APP/LVS/07.14**]. The effects on agricultural land are likely to be of a similar magnitude but in reverse to those reported for the construction phase, as the land would once again become available for food production, as and if required at the time.

5.10 Enhancement

5.10.1 There is potential to reduce the loss of the use of land for agricultural production by also using the land for some form of agricultural production, which is common in England, with Defra statistics for 2025 showing that over half of the agricultural land used for solar production was also used for some form of agricultural production. This will be explored for the Proposed Development.

5.10.2 Although the assessment assumes that vegetation will be managed with machinery, there are no known restrictive covenants that would prevent land beneath the panels being grazed by livestock.

5.11 Residual effects

Construction effects

5.11.1 No additional mitigation has been applied in relation to agricultural land and soils. The residual effects remain as assessed in Section 5.9.

Operational effects

5.11.2 No additional mitigation has been applied in relation to the assessment of operational effects on agricultural land and soils. The residual effects remain as assessed in Section 5.9.

Decommissioning effects

5.11.3 No additional mitigation has been applied in relation to agricultural land and soils. The residual effects remain as assessed in Section 5.9.

5.12 Monitoring

5.12.1 The oLEMP [**EN0110012/APP/LVS/07.05**], submitted as part of the DCO Application for the Proposed Development, includes monitoring requirements to ensure that land and soil resources continue to fulfil the specified planting and their ecological functions, and that remedial action is taken where these are not met. Monitoring requirements are also set out in the oSRMP [**EN0110012/APP/LVS/07.14**].

5.13 Summary

5.13.1 Table 5-21 presents a summary of the agricultural land and soils assessment, detailing further mitigation requirements and residual effects.

Table 5-21 Agricultural land and soils - assessment summary

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Construction					
BMV agricultural land in Grades 1 and 2, Very high	Direct, temporary, long-term (lifetime of the Proposed Development) loss of use of agricultural land equivalent to 1% of the likely BMV land in the Selby District and 0.089% of the likely BMV land in the Yorkshire and Humber Region. Direct, permanent, long-term	Low Medium	Moderate adverse Major adverse	None applied	Moderate adverse (**significant**) Major adverse (**significant**)
BMV agricultural land in Subgrade 3a, High	Direct, temporary, long-term (lifetime of the Proposed Development) Direct, permanent, long-term	Low Low	Minor adverse Minor adverse	None applied None available	Minor adverse (**not significant**) Minor adverse (**not significant**)
Non-BMV agricultural land in Subgrade 3b, Medium	Direct, temporary, long-term (lifetime of the Proposed Development) Direct, permanent, long-term	Low	Minor adverse	None applied	Minor adverse (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
		Medium	Minor adverse	None available	Minor adverse (**not significant**)
Soil resources, High sensitivity	Direct, temporary, short-term	Low	Moderate adverse	None available	Moderate adverse (**significant**)
Soil resources, Medium sensitivity	Direct, temporary, short-term	Low	Minor adverse	None available	Minor adverse (**not significant**)
Soil resources, Low sensitivity	Direct, temporary, short-term	Low	Negligible adverse	None available	Negligible adverse (**not significant**)
Operation					
Soil Health High, Medium and Low sensitivity	Direct, temporary, long-term (lifetime of the Proposed Development)	High	Moderate beneficial	None required	Moderate beneficial (**significant**)
Decommissioning					
Soil resources, High, Medium, Low sensitivity	Direct, temporary, short-term	Low	Minor adverse	None available	Minor adverse (**not significant**)

5.14 Cumulative assessment

5.14.1 This section presents an assessment of cumulative effects between the Proposed Development and other proposed and committed plans and projects.

5.14.2 This assessment has been made with reference to the methodology and guidance set out in Chapter 17: Cumulative and In-Combination Effects (ES Volume 1) [**EN0110012/APP/LVS/06.01.17**] and the shortlist of cumulative plans and projects identified within Chapter 17.

5.14.3 For individual receptors, this cumulative effect assessment identifies where the predicted effects of the Proposed Development could interact with effects arising from other plans and/or projects based on a spatial and/or temporal basis.

5.14.4 Plans and projects identified within Chapter 17: Cumulative and In-Combination Effects (ES Volume 1) [**EN0110012/APP/LVS/06.01.17**] which have the potential to result in cumulative effects on agricultural land and soils are set out in Table 5-22 and are considered below. Only those developments included within the short list in Chapter 17 Cumulative and In-Combination Effects (ES Volume 1) [**EN0110012/APP/LVS/06.01.17**] which would result in loss of BMV land are included in the assessment. The remaining plans and projects included in the shortlist were reviewed in relation to the agricultural land and soils receptors identified in this assessment and no further potential for significant cumulative effects are identified due to the projects not being located on agricultural land or the temporary nature of construction and limited impacts from operation and maintenance.

Table 5-22 Plans and projects relevant to the agricultural land and soils cumulative assessment

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Drax Bioenergy with Carbon Capture and Storage	Installation of post-combustion capture technology that would capture carbon dioxide emissions from up to two of the existing biomass units at Drax Power Station. The proposal includes the construction and operation of carbon capture technology and associated equipment, and the integration of the units into the existing Common Services at Drax Power Station, and associated development.	10.7 km east of Solar Development Site (SDS) 4. 8.9 km southeast of Cable Route Corridor (CRC 1-4).	Permanent loss of 7.1 ha of agricultural land, including 4.9 ha BMV. Assessed in ES as slight adverse.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Helios Renewable Energy Project	Installation of ground mounted solar arrays, energy storage and associated development comprising grid connection infrastructure and other infrastructure integral to the construction, operation, and maintenance of the development for the generation of over 50 Megawatts (MW) of electricity.	6 km east of SDS 4. 4.5 km southeast of CRC 1-4.	Temporary loss of 395 ha of agricultural land, including 384 ha of BMV. Assessed in ES as moderate adverse.
Fenwick Solar Farm	Installation of solar photovoltaic (PV) generating panels, associated electrical equipment, cabling and energy storage facilities together with grid connection infrastructure. The generating capacity of the Scheme will exceed 50 MW, and its maximum capacity is anticipated to be 237.5 MW.	11.7 km east of SDS 4. 8.4 km southeast of CRC 1-4	Temporary loss of 405 ha of agricultural land, including 30 ha of BMV. Assessed in ES as negligible.
Yorkshire Green	A proposed reinforcement project comprising a new 400 kV and 275 kV electricity transmission connection and associated development.	0.3 km south of SDS 3 0 m (overlap with CRC 4-POC due to works at Monk Fryston substation)	Permanent loss of 120 ha of agricultural land, of which 94 ha is BMV.
East Yorkshire Solar Farm	Construction, operation (including maintenance) and decommissioning of ground mounted solar PV panel arrays, including underground cabling to connect to the national electricity transmission network at National Grid's Drax Substation; underground cabling between the areas of solar PV panels; areas of landscaping and biodiversity enhancement; and other associated development.	8.6 km southeast of SDS 1. 7.6 km southeast of CRC 1-4	Temporary loss of 959 ha of agricultural land, including 61 ha of BMV. Assessed in ES as slight adverse.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Ferrybridge Next Generation Power Station	A generating station of up to 1.2 GW output capacity designed to run on 100% hydrogen and able to run on 100% natural gas and associated infrastructure including a gas pipeline of up to 10 km to connect with the existing Feeder 29 of the National Grid transmission system; water supply and electricity connections; above ground installations; utilities connections; construction and operational laydown areas; access(es); and other associated and ancillary development.	0 m (crosses SDS 4) 0 m (intersects CRC 4-POC)	Pipeline would affect Provisional Grades 2 and 3 agricultural land. Scoped out in the EIA Scoping Report because temporary construction impact only but this was not accepted by PINS in the EIA Scoping Opinion. Part of the red line boundary for the Ferrybridge Next Generation Power Station proposals crosses land within the Proposed Development within Solar Development Site 4. Land of Grades 2, 3a and 3b is affected temporarily by the construction of a pipeline, with no lasting significant effects anticipated.
Humber Carbon Capture Pipeline	The Humber Carbon Capture Pipeline project comprises an onshore underground CO2 pipeline and associated above ground infrastructure to transport captured carbon dioxide from emitters in the Humber region (to be selected by UK Government as part of the Carbon Capture Usage and Storage Cluster Sequencing process) from Drax (in North Yorkshire) to Easington on the coast (within East Riding of Yorkshire) to connect with a secure offshore storage in the North Sea (with the offshore storage and associated transportation pipeline subject to separate consent).	11 km east of SDS 4. 8.35 km southeast of CRC 1-4.	Potentially affects Grades 1 and 2 agricultural land and scoped in for assessment.
Mylen Leah Solar Farm	Ground-mounted solar electricity generating station with a gross output of over 50 MW and associated grid connection infrastructure.	5.1 km east of SDS 1. 5.2 km east of CRC 1-4	Potentially affects BMV land and scoped in for assessment.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Erection of a Solar Farm AP/2025/0037/REF	Erection of a solar farm together with ancillary development.	0 m (adjacent to boundary of SDS 3 and 4). 0 m (intersects CRC 3-4a and CRC 3-4)	Temporary loss of 65 ha of agricultural land, including 48 ha of BMV.
Construction and operation of a solar farm ZG2023/0481/SCN	EIA Screening Opinion in relation to the construction and operation of a solar farm together with all associated works, equipment, necessary infrastructure, and landscaping.	50 m east of SDS 7. 10 m east of CRC 6-7	Temporary loss of Provisional Grade 2 (BMV) land.
Hybrid Planning Application for Drax Power Station – Converter Station and high voltage current 2022/0711/EIA (Reserved Matters App - ZG2024/0241/REMM)	Hybrid Planning Application comprising two parts: (Part 1) Outline planning application (all matters reserved) for the construction of a converter station at Drax, Selby; (Part 2) full planning application for the installation of high voltage direct current (HVDC) underground cables from the River Ouse to the converter station and high voltage alternating current (HVAC) underground cables from the converter station to the existing Drax Substation as well as all associated temporary works including compounds, accesses and bellmouths as part of the construction of Scotland-England Green Link 2, a 2 GW reinforcement of the electricity transmission system between Peterhead, Scotland and Drax, England.	11.7 km east of SDS 4. 9.8 km southeast of CRC 1-4	Temporary construction loss of 266 ha BMV, with 5.9 ha permanent loss of agricultural land (1.7 ha of which is BMV).
2021/0978/FULM	Installation of renewable energy generating station comprising ground mounted photovoltaic solar arrays together with substation, transformer stations, site	4.6 km south of SDS 1. 2.8 km southeast of CRC 1-4	Temporary loss of 66 ha of agricultural land, including 20 ha of BMV.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
	accesses, internal access tracks, security measures, access gates, other ancillary infrastructure.		
NY/2022/0102/ENV	Extraction and processing of magnesian limestone, the installation and operation of a low-level aggregate processing plant with ancillary buildings and restoration by infilling of the void space with inert waste to original ground levels	2.3 km southwest of SDS 6. 250 m northwest of CRC 4 - POC	Temporary loss of 17.9 ha of agricultural land, including 5.4 ha of BMV.
NY/2019/0136/ENV	Proposed new quarry to extract approximately 6 million tonnes of clay by 2053 and restoration of the site to agriculture and nature conservation with the importation of up to 2.67 million tonnes of inert materials together with the construction of new internal site access haul road, site compound, car park, site office, wheel washing facility, security fencing and gates and the construction of a temporary bridge crossing over the National Route 65 of the National Cycle Network.	2.1 km west of SDS 1. 1.8 km northwest of CRC 1-4	Temporary loss of 56 ha of agricultural land, including 48 ha of BMV. Permanent loss of 16 ha of BMV.
ZG2025/0427/EIA	Construction of an energy park comprising 49.9 MW solar farm, BESS and associated infrastructure cross boundary application.	7.5 km northwest of SDS 7. 8.8 km northwest of CRC 6-7	Temporary loss of 109 ha of agricultural land, including 62 ha of BMV.
ZG2025/0100/EIA	Construction and operation of a solar farm comprising up to 49.9 MW and associated infrastructure.	6.4 km southwest of SDS 8. 6.5 km south of CRC 4-POC	Temporary loss of 41.5 ha of agricultural land, including 11.8 ha of BMV.
ZG2025/0693/EIA	Installation of a solar farm comprising ground mounted solar PV panels with an installed capacity of 49.99 MW including mounting	8.2 km south of SDS 1 4.1 km southeast of CRC 1-4.	Temporary loss of 76 ha of agricultural land, including 14.6 ha of BMV. ALC of permanent loss not specified.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
	system, inverters, underground cabling, stock proof fence, CCTV, internal tracks and associated infrastructure, landscaping, biodiversity net gain and environmental enhancements for a temporary period of 50 years and a permanent substation.		
ZG/2025/0762/EIA	Construction and operation of solar PV farm and BESS including access, fencing, CCTV, internal service tracks, ancillary equipment and scheme of landscaping.	4.55 km northeast of SDS 8. 1.45 km northwest of CRC 1-4	Temporary loss of 57.8 ha of agricultural land, including 26.9 ha of BMV.
2023/0128/EIA	Development of a ground-mounted solar farm including associated infrastructure	10.95 km east of SDS 4. 9.85 km southeast of CRC 1-4	Temporary loss of 148.7 ha, including 85.1 ha of BMV.
22/01990/STPLFE	Construction of sub-surface cable route from Drax Power Station to Fraisthorpe Coastline with associated accesses and temporary construction compounds in association with the Scotland to England Green Link	12.25 km east of SDS 4. 9.4 km southeast of CRC 1-4	Temporary loss of 305.3 ha, including 266.2 ha of BMV. Permanent loss of 5.9 ha, including 1.7 ha of BMV.
25/02626/FU	Temporary use of 40.2 ha for the winning and working of 2.1 million tonnes of sand and gravel.	9.7 km southwest of SDS 6. 7.1 km southwest of CRC 4-POC	Temporary loss of 40.2 ha of agricultural land, including 37.7 ha of BMV.

5.14.5 Where known, these projects would lead to a cumulative temporary loss of 2,836 ha of agricultural land, primarily for solar generation and mineral extraction, including 1,114 ha of BMV agricultural land. Cumulatively with the Proposed Development, which would involve the temporary loss to agriculture of 486 ha of BMV agricultural land, this would represent 3.4% of the BMV land in Selby, which would be locally significant, and 0.3% of the BMV land in the Yorkshire and Humber region, which would not be significant at that scale.

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