

**Tillbridge Solar Project  
EN010142**

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## Table of Contents

15. Soils and Agriculture .....	15-1
15.1 Introduction .....	15-1
15.2 Legislation, Planning Policy and Guidance .....	15-1
15.3 Assessment Assumptions and Limitations .....	15-2
Cable Route Corridor .....	15-2
Agricultural Land Quality .....	15-2
Soil Resource .....	15-3
Farming Circumstances .....	15-3
15.4 Assessment Methodology .....	15-3
Assessment of Agricultural Land Quality.....	15-4
Assessment of Soil Resources .....	15-5
Assessment of Farming Circumstances.....	15-6
Significance Criteria .....	15-6
Agricultural Land Quality .....	15-6
Soil Resources .....	15-8
Farming Circumstances .....	15-9
15.5 Stakeholder Engagement .....	15-10
15.6 Baseline Conditions .....	15-17
Existing Baseline .....	15-17
Agricultural Land Quality .....	15-17
Soil Resource .....	15-18
Farming Circumstances .....	15-18
Future Baseline.....	15-19
Agricultural Land Quality .....	15-19
Soil Resource .....	15-19
Farming Circumstances .....	15-19
15.7 Embedded Mitigation .....	15-20
15.8 Assessment of Likely Impacts and Effects .....	15-20
Construction Effects.....	15-20
Agricultural Land Quality .....	15-20
Soil Resource .....	15-23
Farming Circumstances .....	15-24
Operational Effects .....	15-24
Agricultural Land Quality .....	15-24
Soil Resource .....	15-24
Farming Circumstances .....	15-25
Decommissioning Effects.....	15-25
Agricultural Land Quality .....	15-25
Soil Resource .....	15-26
Farming Circumstances .....	15-26
15.9 Additional Mitigation and Enhancements .....	15-26

15.10 Residual Effects.....	15-27
15.11 Cumulative Effects.....	15-30
15.12 References .....	15-31

## Tables

Table 15-1: Sensitivity of Receptor: Agricultural Land Resource .....	15-7
Table 15-2: Magnitude of Change: Agricultural Land Resource .....	15-7
Table 15-3: Sensitivity of Receptor: Soil Resources .....	15-8
Table 15-4: Magnitude of Change Criteria: Soil Resources .....	15-8
Table 15-5: Sensitivity of Receptor: Farming Circumstances .....	15-9
Table 15-6: Magnitude of Change Criteria: Farming Circumstances .....	15-10
Table 15-7: Significance Effects Matrix.....	15-10
Table 15-8: Scoping Opinion Responses for Soils and Agriculture.....	15-11
Table 15-9: Main matters relevant to Soils and Agriculture raised through the Statutory Consultation .....	15-14
Table 15-10: ALC Grade Distribution Within the Principal Site .....	15-17
Table 15-11: ALC grade of the Principal Site Components.....	15-22
Table 15-12: Summary of Residual Effects .....	15-28

## 15. Soils and Agriculture

### 15.1 Introduction

- 15.1.1 This chapter of the Environmental Statement (ES) presents the findings of an assessment of the likely significant effects on soils and agriculture as a result of the proposed construction, operation and decommissioning of the Tillbridge Solar Project (hereafter referred to as 'the Scheme'). The Scheme comprises the construction, operation (including maintenance) and decommissioning of ground mounted solar photovoltaic (PV) panel arrays and a Battery Energy Storage System (BESS), connecting to the National Grid. For more details on the Scheme, refer to **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1].
- 15.1.2 This chapter identifies and proposes measures to address the potential impacts and likely effects of the Scheme on Soils and Agriculture, during the construction, operation and decommissioning phases.
- 15.1.3 It provides an assessment of the likely significant Soils and Agriculture effects of the Scheme. Consideration is given within the chapter to the resources of agricultural land, the soil resource associated with that land, and the farm businesses operating at and around the Order limits.
- 15.1.4 This chapter is supported by the following appendices:
- a. **Appendix 15-1: Soils and Agriculture Legislation, Policy and Guidance** [EN010142/APP/6.2]; and
  - b. **Appendix 15-2: Agricultural Land Classification Baseline Report** [EN010142/APP/6.2].
- 15.1.5 This chapter is supported by the following figure:
- a. **Figure 15-1: Principal Site Agricultural Land Classification Distribution** [EN010142/APP/6.3].

### 15.2 Legislation, Planning Policy and Guidance

- 15.2.1 **Appendix 15-1: Soils and Agriculture Legislation, Policy and Guidance** of this ES [EN010142/APP/6.2] identifies the legislation, policy and guidance of relevance to the assessment of likely significant soils and agriculture effects of the Scheme. **Chapter 17: Other Environmental Topics** of this ES [EN010142/APP/6.1] deals with issues of contaminated land and the relevant legislation that is not specific to agriculture.

## 15.3 Assessment Assumptions and Limitations

### Cable Route Corridor

- 15.3.1 The Cable Route Corridor has not been subject to a soil survey to inform soil handling work for the cable construction. This survey will be conducted via a requirement of the DCO once the precise location of the cable trench path within the Cable Route Corridor is finalised. This approach to Cable Route Corridor surveying is preceded across the neighbouring solar farm projects and others including Sunnica Energy Farm. The soil survey can also record Agricultural Land Classification (ALC) grades for the cable trench path.
- 15.3.2 Were a detailed survey of the entire Cable Route Corridor to be carried out pre application, sample points would be on a grid with 100m spacing, with very few of these points falling within the narrow area of excavation for the eventual construction working area determined during detailed design, post consent. The Applicant considers that obtaining access to the Cable Route Corridor (including the significant delay to programme that would ensue) would be disproportionate to the benefits to be achieved from its survey pre-consent, particularly when so few sample points would actually fall within the area of excavation. Field survey work for agricultural land in the Cable Route Corridor will therefore take place once development consent is obtained. This does not affect the understanding of whether there are likely significant effects or the need for mitigation, as explained in Section 15.8.
- 15.3.3 Cropping information for the Cable Route Corridor will also be obtained at this time to enable planning of the cable route works to avoid unnecessary disruption to the specific crops in the fields. For instance, avoiding key periods for that specific crop such as harvest. Cropping information for arable land gathered pre consent could not establish what crop from a rotation will be present when work eventually takes place. Therefore, soils and agriculture assessment work pre-application would be deficient for informing works in the Cable Route Corridor.
- 15.3.4 The cable trenching work will be similar to the laying of agricultural field drains, with excavated soil being placed to the side then backfilled directly without the need to remove soil to a storage bund. All work will benefit from the embedded mitigation of a Soil Management Plan ensuring the soil is not in a plastic consistence when worked. This will effectively eliminate the principal risk of soil degradation from the cable trenching works. As the works are brief with no loss or degradation of soils or agricultural land, there is no significant limitation to the soils and agriculture appraisal from the absence of pre-application detailed assessment in the Cable Route Corridor.

### Agricultural Land Quality

- 15.3.5 As directed by Technical Information Note 049 (TIN049) (Ref. 15-1), soil characteristics for the detailed ALC survey presented in **Appendix 15-2: Agricultural Land Classification Baseline Report** of this ES

**[EN010142/APP/6.2]** were gathered at sample points at 100m intervals. This limits the mapping of ALC grades to a scale of 1:10,000 and the calculation of extents to the nearest 0.1ha to avoid presenting spurious accuracy.

- 15.3.6 The detailed ALC survey scale is appropriate for informing planning and this assessment, however as with minerals and built development work, experienced excavator operators and monitoring by soil scientists may be required to identify localised variation in soil characteristics when excavating cable trenches and recovering topsoil from access tracks.

## Soil Resource

- 15.3.7 The assessment of the soil resource in this chapter is restricted to its agricultural function. Any effect on the functional capacity of soil to perform other environmental services such as the preservation of cultural artefacts and the support of biodiverse habitats, are covered elsewhere in **Chapter 8: Cultural Heritage, Chapter 9: Ecology and Nature Conservation** and **Chapter 10: Water Environment** this ES **[EN010142/APP/6.1]**.

## Farming Circumstances

- 15.3.8 A farming circumstances baseline has been completed as far as possible, but not all of the twelve agricultural occupants have been interviewed. The assessment is based upon Farming Circumstances for five farm businesses operating within the Principal Site. Two of the farms that have not yet been interviewed are understood to be small units (15 and 5 hectares) with the land used for horses and the owner's own amenity, not commercially viable farm businesses.
- 15.3.9 The five farms considered range between large and dynamic arable operations that farm additional land for other landowners under contract management arrangements, and smaller units that the owners regard as no longer financially viable. Some of the farm businesses where baseline data could not be obtained are understood to have arable land managed by contractors rather than undertaking their own land work in hand. These farm businesses will therefore have little to no farm labour and machinery currently employed to manage the land.
- 15.3.10 As there is currently no planning policy guidance or environmental impact assessment guidance on the assessment of farming circumstances, the omission of some farms from the baseline data does not compromise the ability to assess environmental effects for Soils and Agriculture.

## 15.4 Assessment Methodology

- 15.4.1 This chapter covers three key issues of relevance to agricultural land:
- a. **Agricultural Land Quality:** The effects of the Scheme upon agricultural land as a resource, taking account of the land quality and versatility

according to the Agricultural Land Classification (ALC) guidelines (Ref. 15-2);

- b. **Soil Resource:** The effects of the Scheme upon the soil resource are considered. The soil differs from the land that it is associated with, in that soil can be translocated; and
  - c. **Farming Circumstances:** Consideration of the effects of the Scheme upon farm businesses currently in operation within the Principal Site and any effects the Scheme may have on the management of surrounding agricultural land.
- 15.4.2 The above effects typically occur at the construction stage of the Scheme. However, consideration is also given to any ongoing effects once the Scheme is complete and operational, then following into the decommissioning of the Scheme.
- 15.4.3 The ALC assessment is a quantitative assessment as it maps the extent of Best and Most Versatile (BMV) land according to the prescribed ALC methodology (Ref. 15-2). The assessment of likely effects upon a farm business is a qualitative assessment. The future management, marketplace or economic performance for a farm enterprise cannot be dictated or predicted.
- 15.4.4 The scope of the assessment meets the direction given by national and local planning guidance, providing a detailed ALC assessment of the Principal Site, soils data for soil management planning within the Scheme, and farming circumstances for the Order limits.
- 15.4.5 Soils Resources and Farming Circumstances information for the Cable Route Corridor will not be obtained until post consent as a requirement of the DCO. Soils data has not been collected at the pre-planning stage as control of the land is required for access, the duration of the Cable Route Corridor land take is short, the width of the corridor is narrow and the precise path is not yet determined. Rather than a grid survey of soils in each field with a 100m sample point spacing (as for a detailed assessment) soil assessment will prioritise the actual extent of the Cable Route Corridor works. Farming Circumstances data for the Cable Route Corridor works will also need to establish the actual crop in the ground that year. Any such data collected at the application stage would be out of date.
- 15.4.6 For these reasons, soils and agriculture assessment for the Cable Route Corridor will be made post consent when the land use information is current and the precise path of excavation is resolved.

## Assessment of Agricultural Land Quality

- 15.4.7 ALC surveys have been undertaken on the agricultural land found within the Principal Site. This work has been undertaken by a specialist ALC consultancy, Soil Environment Service (SES) Ltd, with the assessment reviewed and verified by additional site work by a second ALC specialist, Daniel Baird Soil Consultancy Ltd. The ALC survey report is presented in

**Appendix 15-2: Agricultural Land Classification Baseline Report** of this ES [EN010142/APP/6.2]. The ALC assessment work follows the guidance given by Natural England in TIN049 (Ref. 15-1).

- 15.4.8 ALC guidelines and criteria (Ref. 15-2) require that the following factors be investigated:
- a. **Climate:** Average Annual Rainfall (AAR) and Accumulated Temperature above 0°C between January and June (AT0);
  - b. **Site:** Gradient, Micro Relief and Flooding;
  - c. **Soils:** Texture, Structure, Depth, Stoniness, and Chemical Toxicity; and
  - d. **Interactive Factors:** Soil Wetness, Soil Droughtiness and Liability to Erosion.
- 15.4.9 Climatological data for ALC are provided for 5km intersections of the National Grid by the Meteorological Office, in collaboration with the National Soil Resources Institute (Ref. 15-2). The data from these points is interpolated providing climate data for specific sites. Interpolated climate data has been calculated for a representative location of the Principal Site.
- 15.4.10 The interactive factors of soil wetness, soil droughtiness and liability to erosion are assessed according to the ALC criteria from the climate and soil profile data.
- 15.4.11 The ALC methodology does not assess the fertility or economic value of farmland, or the quality of the current land management. It is deliberately limited to features of the land and soil that are beyond the practical influence of land management and that can limit the versatility of land to support a range of different agricultural enterprises.

## **Assessment of Soil Resources**

- 15.4.12 The Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref. 15-3) recommends the use of the soil physical characteristics data, collected as part of an ALC survey, to identify topsoil and subsoil units for separate handling and beneficial reuse. Failure to separate soil units in soil handling can result in dilution or loss of the soil characteristics, for instance combining subsoil with topsoil can degrade characteristics such as superior aggregate stability, moisture retention and permeability. This approach, used in this assessment, continues the practice that was used by the former Ministry of Agriculture, Fisheries and Food (MAFF) ALC survey teams for minerals sites to advise on appropriate land restoration.
- 15.4.13 The ALC detailed survey data in **Appendix 15-2: Agricultural Land Classification Baseline Report** of this ES [EN010142/APP/6.2] includes information on the depth, clay content and stoniness of topsoil and subsoil horizons, enabling the mapping of the extent of soil units appropriate for separate stripping, storage and beneficial reuse. Mapping of soil units would form part of a detailed Soil Management Plan that will be secured by a



Requirement of the DCO. A **Framework Soil Management Plan (FSMP)** is submitted alongside the DCO application [EN010142/APP/7.12].

## Assessment of Farming Circumstances

- 15.4.14 There is no current guidance on the assessment of Farming Circumstances. The approach taken for this EIA broadly follows the guidance from the now superseded Planning Policy Guidance Note 7 (PPG7) Annex B which has remained a common approach for EIA in England and was for a time included in the Design Manual for Roads and Bridges.
- 15.4.15 Twelve farm businesses occupy the Principal Site. Information on the size and nature of nine of these farm businesses has been obtained from the occupants, and of these interviews have been conducted for five farm businesses. Additional farm businesses will occupy land crossed by the Cable Route Corridor where the interruption to current land management is considerably shorter compared to land within the Principal Site. More detailed and contemporary information on specific cropping and timing of operations specific to the route of the Cable Route Corridor will be obtained to inform the final detailed Construction Environmental Management Plan (CEMP), to be secured by a requirement of the DCO, to minimise issues of land severance from cable route construction works and make appropriate temporary access measures.

## Significance Criteria

### Agricultural Land Quality

- 15.4.16 BMV agricultural land is a national resource with longstanding policy to prevent the unnecessary loss of such land to non-agricultural development. Land in ALC Grades 1, 2 and 3a is considered to constitute BMV land. Paragraph 2.10.29 of the National Planning Statement for Renewable Energy Infrastructure (EN-3) (Ref. 15-5) directs that poorer quality agricultural land should be preferred and BMV agricultural land avoided where possible. This paragraph also notes that land type should not be a predominating factor in determining the suitability of the site location.
- 15.4.17 Although soil characteristics are an important factor of agricultural land quality, there are other factors including climate and topography, that are specific to the location. For all practical intents and purposes, agricultural land cannot be created or translocated, nor can a compensatory area of land have its ALC grade enhanced. There is therefore no viable potential for beneficial effect or mitigation with regard to agricultural land quality.
- 15.4.18 Land has a soil resource associated with it. This soil has a functional capacity that can be improved, degraded or lost (for instance as a result of contamination of soil) in addition to the potential for loss of the soil material itself. Some functions of soil, such as the preservation of cultural artefacts and the support of biodiverse habitats, are covered elsewhere in **Chapter 8: Cultural Heritage, Chapter 9: Ecology and Nature Conservation and Chapter 10: Water Environment** of this ES [EN010142/APP/6.1]. For this

chapter, the function of the soil for the support of agricultural production is the primary issue.

15.4.19 Soil is for all practical intents and purposes a non-renewable resource. Therefore, the preservation and beneficial reuse of this resource is desirable in its own right.

15.4.20 Institute of Environmental Management and Assessment (IEMA) guidance (Ref. 15-4) provides guidance on receptor sensitivity for both soil resource and soil functions, with agricultural land quality being included referred to as the soil function of 'biomass production' – the growing of food, fibre and fuel. **Table 15-1** and **Table 15-2** below summarise the IEMA suggested sensitivity of receptor and magnitude of change for agricultural land.

**Table 15-1: Sensitivity of Receptor: Agricultural Land Resource**

<b>Sensitive/value of receptor</b>	<b>IEMA Criteria</b>
Very High	ALC Grades 1 and 2
High	ALC Grade 3a
Medium	ALC Grade 3b
Low	ALC Grades 4 and 5

**Table 15-2: Magnitude of Change: Agricultural Land Resource**

<b>Magnitude of Change</b>	<b>IEMA Criteria</b>
Major	Permanent Loss of over 20ha
Moderate	Permanent Loss of 5 to 20ha
Minor	Permanent Loss of less than 5ha
No Change / Negligible	No Discernible Loss of Agricultural Land

15.4.21 The permanent loss of 20ha threshold is an arbitrary area but has been in use by IEMA for several decades. MAFF guidance (Ref. 15-2) used the threshold of 20ha of BMV land to inform interventions in planning including use of independent call-in powers. It should be noted that use of a fixed area as a threshold may not be applicable to all scales of development, and for very large applications, the proportion of BMV land should be considered. In this instance the Principal Site is approximately 1,350 ha but the extent of structures such as tracks, substations and Battery Energy Storage System is estimated to be approximately 43.3ha or 3.2% of the Principal Site area, with the vast majority of the solar farm being available for grazing throughout the operational phase.

15.4.22 The IEMA guidance on assessing land and soil in EIA clarifies that the guidance on assessing magnitude of impact applies to 'hard development' which includes permanent sealing or sterilisation of agricultural land. The change of agricultural land to woodland does not fall under these definitions and is therefore not subject to this assessment criteria. This aligns with current Government initiatives to encourage farmers to convert arable land to woodland in England and Wales.

### Soil Resources

The IEMA guidance (Ref. 15-4) provides suggested sensitivity and magnitude criteria for a range of other soil functions such as ecological habitat and archaeology, that are not covered by this chapter. Development of agricultural land can impact the soil resource beyond loss of the agricultural resource. The soil resources sensitivity and magnitude criteria given in **Table 15-3** and **Table 15-4** below relate to soil disturbances from development such as the stripping, storage and respreading of soil, and structural degradation from the passage of plant. These are the activities that present the greatest risk of soil degradation in the construction, operation and decommissioning of a solar farm.

**Table 15-3: Sensitivity of Receptor: Soil Resources**

<b>Sensitive/value of receptor</b>	<b>Example Criteria</b>
Very High	Disturbing heavy textured soil in plastic condition
High	Disturbing medium textured soil in plastic condition
Medium	Disturbing heavy to medium textured soil in friable condition
Low	Disturbing light textured soil in friable condition

**Table 15-4: Magnitude of Change Criteria: Soil Resources**

<b>Magnitude of Change</b>	<b>Example Criteria</b>
Major	Disposal of topsoil or loss of productive functional capacity e.g. land contamination (Adverse). or Permanent improvement in productive functional capacity > 20ha (Beneficial)
Moderate	Loss of topsoil for agricultural production but retained for beneficial reuse, or degradation of productive capacity e.g. puddled topsoil (Adverse). or

<b>Magnitude of Change</b>	<b>Example Criteria</b>
	Permanent improvement in productive functional capacity 5 to 20ha (Beneficial)
Minor	Loss of subsoil for agricultural production but retained for beneficial reuse (Adverse). or Permanent improvement in productive functional capacity < 5ha (Beneficial)
No Change / Negligible	Marginal loss of soil material e.g. light erosion from construction easement (Adverse).

### **Farming Circumstances**

15.4.23 For farming circumstances, the sensitivity of individual farm enterprises can be highly specific to the nature of the effect. For instance, a dairy enterprise will have far greater sensitivity to temporary disruption of access than an arable enterprise. Effects of development on a farm business can extend beyond the extent of land lost for production, for instance the fragmentation of a field or holding, and the establishment of a new land use in close enough proximity to cause a nuisance (for instance dust generation impacting on forage palatability).

15.4.24 **Table 15-5** and **Table 15-6** give example sensitivity and magnitude of change criteria for farming circumstances receptors. IEMA does not provide sensitivity of receptor or magnitude of change criteria for agricultural enterprises. Sensitivities of various agricultural enterprises vary markedly between different effects, for instance a breeding livestock enterprise may have very high sensitivity to trespass with dogs in contrast to an arable enterprise. Assessors experience and judgement is required to identify the agricultural activities that are sensitive to the likely effects, then determine the appropriate sensitivity and magnitude of change.

**Table 15-5: Sensitivity of Receptor: Farming Circumstances**

<b>Sensitive/value of receptor</b>	<b>Example Criteria</b>
Very High	Breeding livestock and stock with biosecurity restrictions
High	High value vegetable and fruit crops
Medium	Dairy requiring daily collection of perishable milk
Low	Housed livestock

**Table 15-6: Magnitude of Change Criteria: Farming Circumstances**

<b>Magnitude of Change</b>	<b>Example Criteria</b>
Major	Termination of a farm business (Adverse) Creation/expansion of primary farm enterprise (Beneficial)
Moderate	Termination of a farm enterprise (Adverse) Creation/expansion of a farm enterprise (Beneficial)
Minor	Constraint of a farm enterprise (Adverse) Enhancement of existing farm enterprise (Beneficial)
No Change / Negligible	Minor interruption to farm enterprise planning, such as delay to turning out livestock (Adverse) Temporary enhancement of existing farm enterprise (Beneficial)

15.4.25 **Table 15-7** provides the Significance of Effects Matrix, taking account of the magnitude of impact and the sensitivity of the response/receptor detailed above. Only those effects classified as Moderate and Major are considered significant.

**Table 15-7: Significance Effects Matrix**

<b>Sensitivity or value of response/receptor</b>	<b>Magnitude of impact</b>			
	<b>Major</b>	<b>Moderate</b>	<b>Minor</b>	<b>Negligible</b>
<b>Very High</b>	Major	Major	Moderate	Minor
<b>High</b>	Major	Moderate	Minor	Negligible
<b>Medium</b>	Moderate	Minor	Negligible	Negligible
<b>Low</b>	Minor	Negligible	Negligible	Negligible

## 15.5 Stakeholder Engagement

15.5.1 A request for an EIA Scoping Opinion, **Appendix 1-2: EIA Scoping Opinion** of this ES [EN010142/APP/6.2], was sought from the Secretary of State through the Planning Inspectorate in 2022 as part of the EIA Scoping Process. A summary of consultation responses relating to soils and agriculture, to date, are presented in **Table 15-8**.

**Table 15-8: Scoping Opinion Responses for Soils and Agriculture**

<b>Consultee</b>	<b>Summary of main matter raised</b>	<b>How has the matter been addressed?</b>	<b>Location of response in the chapter</b>
Natural England	The quantity and quality of land that will be permanently and temporarily lost to the development. This should include the cable route. The ALC survey should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).	A detailed ALC assessment has been undertaken for the Principal Site and is presented in <b>Appendix 15-2: Agricultural Land Classification Baseline Report [EN010142/APP/6.2]</b> . This ALC assessment does not extend to the Cable Route Corridor. Soils data has not been collected at the pre-planning stage as control of the land is required for access, the duration of the Cable Route Corridor land take is short, the width of the corridor is narrow and the precise path is not yet determined. In addition, a specific survey of the eventual narrow cable trench path will be more appropriate than a 100m grid survey of the surrounding Cable Route Corridor where only a minority of sample points will be close to the trenching work.	Section 15.4 Assessment Methodology.
Natural England	Details of how any adverse impacts on soils, in particular BMV agricultural land, can be avoided or minimised through site design/masterplan. As well as details of how soils will be sustainably used and managed on site. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site	The majority of the Scheme will experience little or no disturbance to soils. Layout of the Principal Site minimises the footprint of elements such as substations, where topsoil will be stripped and stored, on BMV agricultural land.  The <b>Framework SMP</b> submitted alongside the DCO application <b>[EN010142/APP/7.12]</b> references the Defra Construction Code of	Section 15.7 Embedded Mitigation.

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>impacts. Mitigation should include reference to the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.</p>	<p>Practice for the Sustainable Use of Soils on Construction Sites (Ref. 15-3). This includes guidance on managing construction, maintenance and decommissioning works to avoid soil degradation.</p>	
<p>Natural England</p>	<p>Details of any proposed agricultural use of the site during the operational phase, and details of intended restoration following decommissioning.</p>	<p>Land below and between solar panels within the Scheme will be available for grazing by small livestock.</p> <p>The <b>Framework SMP</b> submitted alongside the DCO application <b>[EN010142/APP/7.12]</b> guides appropriate land restoration practice at decommissioning. Areas of agricultural land restoration will be limited to the small extent of elements such as substations and access tracks. The remainder of agricultural land within the Scheme will not require restoration as it will remain agricultural land for the lifetime of the Scheme.</p>	<p>Section 15.7                      Embedded Mitigation.</p>

15.5.2 Further consultation in response to formal pre-application engagement was undertaken through the Preliminary Environmental Information Report (PEI Report). **Table 15-9** outlines the statutory consultation responses relating to soils and agriculture and how these have been addressed through the ES. Responses have been grouped thematically where relevant, but all relevant consultees are listed. No additional comments were received during the subsequent round of targeted consultation.



**Table 15-9: Main matters relevant to Soils and Agriculture raised through the Statutory Consultation**

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Natural England	Natural England welcomes the use of the Soil Management Plan (SMP) within the construction, operational and decommissioning phases of the Scheme. We would refer you to the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites in the design of this management plan.	The <b>Framework SMP</b> submitted alongside the DCO application <b>[EN010142/APP/7.12]</b> has the aim of conserving soil material and functional capacity for supporting agriculture through development, operation and decommissioning, drawing upon the guidance provided by the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref. 15-3).	Section 15.7 Embedded Mitigation.
Natural England	In terms of soils, it is important that any BMV is considered when planning the site layout and the proposed location of any habitat enhancement or Biodiversity Net Gain.	The Principal Site layout takes BMV into account, with placement of facilities such as substations avoiding BMV land. Management of land for habitat enhancement and Biodiversity Net Gain presents no risk to BMV land.	<b>Table 15-11</b> cross references ALC Grade against elements within the Principal Site.
Lincolnshire County Council	Soil structure can be significantly damaged during the construction phase of the process, particularly on heavy clay soils. There is inevitably a lot of trafficking of vehicles on the land to erect the panels and if this work is undertaken when soils are wet, there can be significant damage. Much of this damage can be remedied post construction, but not all and it is possible	The <b>Framework SMP</b> submitted alongside the DCO application <b>[EN010142/APP/7.12]</b> aims to conserve soil material and functional capacity for supporting agriculture, through development, operation and decommissioning. It provides guidance on the avoidance of soil degradation	Section 15.7 Embedded Mitigation.

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>that long term drainage issues occur on the site due to the construction.</p> <p>During the construction phase many of the areas will affect soil and water issues. A basic Soil Management Plan that should be established as part of the Construction Phase, to minimise the impact on soil resources. The following headings should be included in the Soil Management Plan, both for the site and the cable route.</p> <ul style="list-style-type: none"> <li>• Site preparation;</li> <li>• Import of construction materials, plant and equipment to Site;</li> <li>• Establishment of Site construction compounds and welfare facilities;</li> <li>• Cable installation;</li> <li>• Temporary construction compounds;</li> <li>• Trenching in sections;</li> <li>• Upgrading existing tracks and construction of new access roads within the Site;</li> <li>• The upgrade or construction of crossing points (bridges /culverts) at drainage ditches within the Site;</li> <li>• Appropriate storage and capping of soil;</li> <li>• Appropriate construction drainage;</li> <li>• Sectionalised approach of duct installation;</li> <li>• Excavation and installation of jointing pits;</li> </ul>	<p>through construction activities including soil handling and trafficking. The measures will be equally applicable to the Cable Route Corridor as to the Principal Site. The eventual Soil Management Plan, agreed as a condition of the DCO, can address each of the headings raised by Lincolnshire County Council.</p>	

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<ul style="list-style-type: none"> <li>• Cable pulling;</li> <li>• Testing and commissioning;</li> <li>• Site reinstatement (i.e. returning any land used during construction, for temporary purposes, back to its previous condition); and</li> <li>• Use of borrow pits.</li> </ul> <p>A separate soil management plan should be considered for the cable route in order to minimise the impact on soil structure, land drainage and ultimately soil quality. Guidance is available in published documents.</p>		
Respondents	<p>Comments about agricultural land and land use, food production and food security, questioning the productivity of local farmland.</p>	<p>This chapter, <b>Chapter 15: Soils and Agriculture [EN010142/APP/6.1]</b> identifies and proposes measures to address the potential impacts and likely effects of the Scheme on soils and agriculture, during the construction, operation and decommissioning phases</p>	<p><b>Chapter 15: Soils and Agriculture [EN010142/APP/6.1].</b></p>

## 15.6 Baseline Conditions

### Existing Baseline

#### Agricultural Land Quality

- 15.6.1 **Appendix 15-2: Agricultural Land Classification Baseline [EN010142/APP/6.2]** provides details of the agricultural assessment work for the agricultural soil survey area. These are summarised below.
- 15.6.2 The detailed ALC survey of the Principal Site found agricultural land in Grades 2, 3a and 3b. Grade 3b predominates, with Grades 2 and 3a being relatively limited in extent. No land was found at the detailed scale of survey that could be mapped as ALC Grades 1, 4 or 5. **Table 15-10** shows the extent of ALC Grades for the Principal Site's agricultural land determined by the detailed survey covering the agricultural soil survey area presented in **Appendix 15-2: Agricultural Land Classification Baseline Report [EN010142/APP/6.2]**. The distribution of ALC grades for the Principal Site are shown on **Figure 15-1: Principal Site Agricultural Land Classification Distribution [EN010142/APP/6.3]**.

**Table 15-10: ALC Grade Distribution Within the Principal Site**

ALC Grade	Area (ha)	Area (%)
Grade 2	9.2	0.7
Grade 3a	51.1	3.8
Grade 3b	1,152.0	85.3
Non-Agricultural	137.8	10.2
<b>Total</b>	<b>1,350.1</b>	<b>100</b>

- 15.6.3 Soil wetness is the predominant limiting factor for ALC grades across the Principal Site. Clayey subsoil impedes the drainage of excess water down through the soil profile. This leaves the soil seasonally waterlogged.
- 15.6.4 The majority of soil profiles found within the Principal Site have a heavy textured topsoil. When wet this material is highly vulnerable to prolonged structural degradation (smearing, poaching and rutting) from mechanical disturbance such as cultivator blades, tractor wheels and livestock hooves. The combination of restricted drainage, climate and topsoil clay content limits opportunities for cultivation and carrying livestock, with this restriction being sufficient to limit the land to ALC Grade 3b on soil wetness and workability.
- 15.6.5 Some areas of the Principal Site have soil with a similarly impeded drainage but a topsoil that has a lower clay content and/or a significant presence of naturally occurring calcium carbonate (chalk and limestone). This topsoil is more resilient to structural degradation and as a result the soil wetness and workability limitation is to Grade 3a.

- 15.6.6 Grade 2 land is also found in one area to the eastern edge of the Principal Site. This land has light textured topsoil and subsoil, with a profile that is freely drained. Soil droughtiness limits this land to Grade 2.
- 15.6.7 An ALC assessment has not been undertaken for the Cable Route Corridor. With the duration of work being within one growing season, no land loss and no risk of ALC grade degradation, an ALC assessment of the Cable Route Corridor is not necessary to inform the Soils and Agriculture impact assessment. Natural England 1:250,000 scale maps showing Provisional ALC Grades or likelihood of best and most versatile land, are at too small a scale to use for site specific assessment. No attempt has been made to use these small-scale maps to assess the Cable Route Corridor agricultural land quality as the small scale negates any value for assessment of a feature as small as the Cable Route Corridor.
- 15.6.8 As the Cable Route Corridor will be subject to a detailed soil survey, an ALC assessment will also be made at this time and can be secured by a requirement of the DCO, which is consistent with other solar projects including Sunnica Energy Farm.

### **Soil Resource**

- 15.6.9 Soil resource data has been collected as part of the detailed ALC field assessment presented in **Appendix 15-2: Agricultural Land Classification Baseline Report [EN010142/APP/6.2]**. The soil resource within the Principal Site is predominantly heavy textured (high clay content) topsoil and subsoil.
- 15.6.10 Topsoil and subsoil material differ in their organic matter content. The higher organic matter in topsoil improves soil structure, porosity and moisture retention as well as providing nutrients for plant growth. It is therefore of greater value as a growth medium than the underlying subsoil. This organic matter also makes the topsoil more vulnerable to becoming anaerobic (reduced oxygen conditions detrimental to plant root growth) if aeration is restricted, such as by flooding, compaction or burying in a storage bund.
- 15.6.11 The majority of land within all of the Principal Site is under conventional arable management with ploughing each year for crop residue incorporation, weed control and preparation of a seed bed. The loosening and inversion of soil aerates it, speeding the metabolisation of organic matter sufficiently that the topsoil organic matter will continue to decline to a low equilibrium irrespective of the quantity of additional organic matter that can be practically applied to the land.
- 15.6.12 There has not yet been a soil resource assessment for the Cable Route Corridor. A dedicated soil survey of the corridor will be undertaken as part of an agreed detailed Soil Management Plan secured by a requirement of the DCO.

### **Farming Circumstances**

- 15.6.13 Twelve separate farm businesses occupy land within the Principal Site. Interviews have been conducted with occupants for five owner occupied

units. Land is predominantly in standard arable rotations of cereals and break crops, with some energy crops grown for Anaerobic Digester substrate and bio-ethanol production.

15.6.14 Many units are pursuing agricultural support payments for turning arable fields over to biodiversity enhancement, for instance wild bird food or nectar and pollen plant mixes. This is owing to the increasing difficulty experienced on heavy arable land with declining soil health and increasing prevalence of arable weeds, particularly black grass (*Alopecurus myosuroides*).

15.6.15 In common with arable units across England, there is a continuing transition towards fewer farm units each managing larger areas of land. Two of the arable units interviewed manage additional land in the Principal Site under contract management agreements. Two of the smaller arable units consider that arable farms of their size have now ceased to be financially viable.

15.6.16 Farming Circumstances information has not yet been collected for the Cable Route Corridor. To minimise disruption to agricultural operations by cable laying works, cropping and occupancy information on the cable route will need to be current, for instance the specific crop in each field and critical dates for that crop as opposed to typical arable rotations. Any Farming Circumstances information collected pre-application would need to be replaced before cable construction works could be finalised, therefore gaps in this information preconsent will not likely have a significant effect on the assessment. No significant effect on farm businesses is anticipated given the short duration of any disturbance.

## **Future Baseline**

### **Agricultural Land Quality**

15.6.17 ALC grading is insensitive to land management and should only change if there is a major intervention outside the scope of normal agricultural practice, for instance significant contamination of the soil with a persistent toxin. The future baseline of agricultural land quality is therefore effectively fixed.

### **Soil Resource**

15.6.18 Soil health under standard arable rotations, as found within the Principal Site, has become depleted, with soil organic matter falling towards a low equilibrium. For the future baseline, soil organic matter for arable land will continue to approach this low equilibrium.

### **Farming Circumstances**

15.6.19 Agricultural land use is sensitive to market prices, input costs and government agri-environmental subsidies. Current trends of a gradual decline in agricultural employment and increasing use of contractor management of arable land, are likely to continue.

## 15.7 Embedded Mitigation

- 15.7.1 The Order limits have been modified to remove some BMV land from the Scheme, this was informed by the detailed ALC results (contained in Appendix A of **Appendix 15-2: Agricultural Land Classification Baseline Report** of this ES [EN010142/APP/6.2]). An area of Grade 3a and Grade 3b which was located on the western extent of the Principal Site near Springthorpe was removed from the Order limits post EIA scoping; and Grade 3a land on the north eastern extent near Harpswell was removed from the Order limits post statutory consultation. There is further explanation of this in **Chapter 4: Alternatives and Design Evolution** of this ES [EN010142/APP/6.1].
- 15.7.2 The **Framework SMP** submitted alongside the DCO application [EN010142/APP/7.12] has been developed as part of the DCO application. The aim of this document is to indicate measures for the preservation of the soil resource within the Order limits, avoiding both the loss of soil material from the Order limits and the loss of soil functional capacity for soil retained at the Order limits.
- 15.7.3 The **Framework SMP** submitted alongside the DCO application [EN010142/APP/7.12] provides guidance to achieve this aim through the construction, operational and decommissioning phases of the development, covering the appropriate selection of plant, physical characteristics of the soil and safe removal of all below ground features (including piles and cables) at decommissioning that could interfere with subsequent cultivation.
- 15.7.4 The **Framework SMP** submitted alongside the DCO application [EN010142/APP/7.12] will be replaced with a detailed SMP during detailed design as a requirement of the DCO.

## 15.8 Assessment of Likely Impacts and Effects

### Construction Effects

#### Agricultural Land Quality

- 15.8.1 Construction work will start the temporary curtailment (for the duration of the solar farm) of arable production within the Principal Site. The agricultural land resource however is not lost or degraded, and ALC grade is not dependent upon the type or intensity of agricultural management.
- 15.8.2 Construction work is described in detail in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1]. With specific regard to agricultural land the predominant works will entail laying temporary access tracks (compacted stone on geotextile after topsoil stripped and stored), mounting solar panels on narrow steel piles and laying cables in trenches. The land does not cease to be agricultural land if cropping or grazing is suspended while construction work is taking place.

- 15.8.3 **Table 15-11** presents the area of components of the Scheme within the Principal Site against the ALC grading derived from the results presented in **Appendix 15-2: Agricultural Land Classification Baseline Report [EN010142/APP/6.2]**. Non-agricultural land within the Principal Site is excluded from this table.
- 15.8.4 The components which will remain after decommissioning and therefore have the potential to be permanent are the on-site substations, and proposed woodland. The other infrastructure will be removed at the end of the Scheme lifetime.



**Table 15-11: ALC grade of the Principal Site Components**

Principal Site Component	Grade 2		Grade 3a		Grade 3b	
	Area (ha)	% of Principal Site	Area (ha)	% of Principal Site	Area (ha)	% of Principal Site
Solar Panels	-	-	23.97	1.98	686.04	56.59
Solar Stations and BESS	-	-	0.17	0.01	23.05	1.9
Temporary Construction Compounds	-	-	-	-	2.0	0.16
Solar Farm Control Centre and Storage	-	-	-	-	-	-
On-site Substations	-	-	-	-	2.54	0.21
Access Roads	-	-	0.04	<0.1	0.41	0.03
Access Tracks	0.08	0.01	0.46	0.04	17.7	1.46
Permissive Path	-	-	-	-	8.58	0.71
Biodiversity Zone	8.06	0.66	12.56	1.04	191.49	15.8
Sensitive Archaeological Site	1.1	0.09	9.72	0.8	61.84	5.1
Proposed Woodland	-	-	0.92	0.08	32.74	2.7
<b>Total**</b>	<b>9.24</b>	<b>0.76</b>	<b>47.84</b>	<b>3.95</b>	<b>1026.4</b>	<b>84.66</b>

*\*Figures quoted may be rounded.*

*\*\*These totals do not directly align with Table 15-10 as Non-Agricultural land and retained habitats are excluded.*

- 15.8.5 The majority of the agricultural land quality within the Principal Site is ALC Grade 3b (85%).
- 15.8.6 A total 86.24ha of agricultural land will fall out of agricultural use for the duration of the operational phase. This is the land occupied by Principal Site components added as part of the Scheme, comprising Solar Stations and BESS, Solar Farm Control Centre and Storage, On-site Substations, Access Tracks, Permissive Paths and Woodland. Woodland is the single largest of these components at 33.66ha. Although this land cannot continue in agricultural use for the duration of the operational phase, it can all be restored to agricultural use by the landowner at decommissioning, with all structures removed and stored topsoil returned. The land used for the solar panels will remain in agricultural use, for grazing.
- 15.8.7 Following IEMA Sensitivity Criteria (**Table 15-1**), with Grade 3a land present, the value of the receptor is High. Magnitude of Change (**Table 15-2**) is considered Minor, as although there is no permanent loss of agricultural land, the use of some agricultural land is suspended for the duration of the operational period and any permanent loss is less than 0.5ha. With High sensitivity and Minor magnitude of change the result is a **minor adverse** effect, which is **not significant**.
- 15.8.8 The ALC grade for the Cable Route Corridor is not currently known. The high voltage cable will be buried safely below maximum cultivation depth and trenching work will not downgrade the ALC grade of this land. According to the methodology, there is no change, or a negligible magnitude of impact, which is considered to have a **negligible** effect which is **not significant**, irrespective ALC Grade. As mentioned previously, a soil resource assessment will be carried out, once detailed design once has defined the cable route, to inform the detailed SMP. This soil resource assessment collects the same soils information as an ALC field assessment so an ALC grade can be assigned at the same time.

### **Soil Resource**

- 15.8.9 The construction phase will involve trafficking the land in a similar manner to the current arable land use where high axle load vehicles like combine harvesters and grain trailers are regularly used. Heavy plant use will include excavators for digging trenches and cranes for placing substation and storage modules. The degree of soil compaction will depend upon a number of factors including vehicle weight, use of low ground pressure tyres/tracks, use of temporary protective surfaces, number of vehicle movements, soil texture and soil moisture content.
- 15.8.10 The **Framework SMP** submitted alongside the DCO application [**EN010142/APP/7.12**] is considered to be embedded mitigation. This will limit trafficking over and handling of soil following rainfall until soil moisture content has fallen below the plastic limit. It will also specify the depth of topsoil stripping operations to avoid incorporation of subsoil, and appropriate design and management of topsoil storage bunds within the site. These

measures will conserve the functional capacity of both stripped and undisturbed soils for supporting agricultural production.

15.8.11 Heavy textured topsoil in a friable condition has a medium sensitivity, and with all topsoil retained for beneficial reuse, the magnitude of change is Minor, as outlined in **Table 15-4**.

15.8.12 The medium sensitivity and minor magnitude of change will result in a temporary and **negligible** effect on Soil Resource, which is **not significant**.

### **Farming Circumstances**

15.8.13 The start of construction work will mark the beginning of the temporary curtailment of arable management within the Principal Site. While construction work is taking place the land will not be available for grazing livestock or equestrian use either.

15.8.14 The sensitivity of the arable enterprises to a reduction in cropped area is assessed to be medium. With the arable enterprises constrained rather than terminated, the magnitude of change is minor.

15.8.15 The medium sensitivity and minor magnitude of change will result in a temporary and **negligible** effect on Farming Circumstances, which is **not significant**.

## **Operational Effects**

### **Agricultural Land Quality**

15.8.16 The operational phase of the Scheme will not result in loss of agricultural land. Therefore, there is no operational effect further to that from construction.

### **Soil Resource**

15.8.17 While the Scheme is operational, the soil resource at the Principal Site will remain under a perennial grass cover (see the **Framework Landscape and Ecological Management Plan (LEMP)** submitted alongside the DCO application [**EN10142/APP/7.18**]). Benefits to the soil resource during the operational period of green cover with no ploughing will include:

- a. No bare soil surfaces vulnerable to wind and water erosion;
- b. Improved infiltration of rainwater reducing erosive surface water runoff;
- c. Greater exploitation of subsoil by perennial plant roots, improving drainage and loosening compacted subsoils; and
- d. Recovery of topsoil organic matter to a higher equilibrium, improving aggregate stability, water holding capacity and plant nutrient availability.

15.8.18 By facilitating a recovery in topsoil organic matter, this enforced fallow period will enhance the functional capacity of the soil resource for future arable production. Additional benefits from the recovery of soil organic matter include carbon sequestration and hydrological function but this assessment centres on the soil's functional capacity for agricultural production.

- 15.8.19 The benefit of recovery of soil functional capacity for agricultural production is of **Moderate** magnitude, with the heavy clay loam textured topsoil having high sensitivity to this change (clayey soils being able to retain a higher percentage of soil organic matter. Although the elevated soil organic matter content can be sustained on return to arable production, standard cultivation practice will result in a rapid decline back toward the current baseline. This beneficial effect is therefore vulnerable to loss following decommissioning. The extent of the benefit is however substantially greater than 20ha.
- 15.8.20 The high sensitivity and moderate magnitude of change will result in a temporary **Moderate (beneficial)** effect which is **significant**. Adoption of minimum tillage arable management (conserving the recovered soil health) offers the potential to extend the temporary benefit indefinitely.

### **Farming Circumstances**

- 15.8.21 During operation, grass below and between the solar panels will need to be managed. This management can include grazing by livestock where appropriate.
- 15.8.22 Landowning farm businesses will receive income from the Scheme's occupation of their land, a new diversified enterprise. This diversified enterprise will provide a new income stream independent of variations in profitability of arable production. This diversified enterprise may also enable managers of farm businesses that are currently too small to be economically viable, to wind up the farm business.
- 15.8.23 The sensitivity of the farm businesses to this creation of a new farm enterprise will be medium (beneficial) with the magnitude of change being Moderate. For the operational phase there will be a temporary **moderate (beneficial)** effect, which is **significant**.

## **Decommissioning Effects**

### **Agricultural Land Quality**

- 15.8.24 Decommissioning work will allow the land to be managed for arable production again after an extended fallow period of low input grassland. All infrastructure within the Principal Site will be removed up to a depth of 1m and no obstructions will be left in the soil that could interfere with cultivation. No changes to the physical characteristics of the land or the soil associated with it will have taken place that could influence ALC Grade. For instance, there will be no change in topography, soil depth, clay content or subsoil permeability.
- 15.8.25 Removal of hard standing and access tracks will be followed by reinstatement of the stripped and stored topsoil to restore this agricultural land to its previous ALC grade.
- 15.8.26 As for the operational phase the decommissioning phase of the Scheme will not result in loss of agricultural land. Therefore, there is no decommissioning effect further to that from construction.

## Soil Resource

- 15.8.27 As for construction, decommissioning will involve trafficking the land in a similar manner to the current arable land use where high axle load vehicles like combine harvesters and grain trailers are regularly used. Heavy plant use will include excavators for digging out cable trenches and cranes for removing substation and storage modules.
- 15.8.28 The **Framework SMP** submitted alongside the DCO application **[EN010142/APP/7.12]** is considered as embedded mitigation. This will limit trafficking over and handling of soil following rainfall until soil moisture content has fallen below the plastic limit. It will also specify the depth of topsoil reinstatement. These measures will conserve the functional capacity of both reinstated and undisturbed soils for supporting agricultural production.
- 15.8.29 Heavy textured topsoil in a friable condition has a medium sensitivity, and with all topsoil retained for beneficial reuse, the magnitude of change is **Minor**.
- 15.8.30 The medium sensitivity and minor magnitude of change result in a temporary **negligible** effect, which is **not significant**.

## Farming Circumstances

- 15.8.31 Decommissioning of the Scheme will allow a return to current agricultural management options for the land within the Principal Site. As is currently the case, the actual management of the land (arable, pasture, horticulture, woodland etc.) will be a decision for farm managers based upon the prevailing market conditions, opportunities, support payments and regulatory environment. There is no obligation for land to return to arable production just as at present there is no obligation to maintain arable production.
- 15.8.32 The smaller arable units with land in the Principal Site may not be economically viable to return to management as independent farm business, with managers considering several of these not economically viable at present. Such retained land is likely to be managed by other farm businesses either under tenancy or contract management agreements.
- 15.8.33 Arable enterprises will have a medium sensitivity to any change in managed area with the magnitude of change being **Minor**. Land occupancy and land use can vary, but the option to resume arable land management on decommissioning will be a permanent rather than temporary change. With medium sensitivity and a minor (beneficial) magnitude of change, the resulting permanent effect will be **Minor (beneficial)** which is **not significant**.

## 15.9 Additional Mitigation and Enhancements

- 15.9.1 No significant adverse effects have been identified for Agricultural Land Quality, Soil Resource or Farming Circumstances; therefore, no additional mitigation measures are proposed.

## 15.10 Residual Effects

- 15.10.1 This section identifies the residual effects, following the implementation of additional mitigation and monitoring measures, known as 'residual effects' which cannot be eliminated through design changes or the application of standard mitigation measures. **Table 15-12** outlines the likely residual effects in relation to soils and agriculture.
- 15.10.2 No significant residual effects are anticipated to occur during construction, operation or decommissioning of the Scheme.

**Table 15-12: Summary of Residual Effects**

<b>Receptor</b>	<b>Description of Impact</b>	<b>Significance of Effect without Mitigation</b>	<b>Mitigation/Enhancement Measure</b>	<b>Residual Effect after Mitigation</b>
<b><i>Construction</i></b>				
Agricultural Land Quality	Loss of Agricultural Land Quality	Minor Adverse. Not Significant	None required	Minor Adverse. Not Significant
Soil Resource	Loss and Degradation of Soil Resource	Minor Adverse. Not Significant	None required	Minor Adverse. Not Significant
Farming Circumstances	Loss of Land to Farm Businesses	Negligible. Not Significant	None required	Negligible. Not Significant
<b><i>Operation</i></b>				
Agricultural Land Quality	Loss of Agricultural Land Quality	Negligible. Not Significant	None required	Negligible. Not Significant
Soil Resource	Recovery of Soil Health Under Extended Fallow	Moderate Beneficial. Significant	None required	<b>Moderate Beneficial. Significant</b>
Farming Circumstances	New Diversified Enterprise	Moderate Beneficial. Significant	None required	<b>Moderate Beneficial. Significant</b>

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***Decommissioning***

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Agricultural Land Quality	Loss of Agricultural Land Quality	Negligible. Not Significant	None required	Negligible. Not Significant
Soil Resource	Loss and Degradation of Soil Resource	Minor Adverse. Not Significant	None required	Minor Adverse. Not Significant
Farming Circumstances	Option to resume arable land management	Minor Beneficial. Not Significant	None required	Minor Beneficial. Not Significant.



## 15.11 Cumulative Effects

15.11.1 An assessment of cumulative soil and agriculture effects with consideration of other schemes is provided in **Chapter 18: Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1].

## 15.12 References

- Ref. 15-1. Natural England December (2012). Agricultural Land Classification: Protecting the Best and Most Versatile Agricultural Land (TIN049). <https://publications.naturalengland.org.uk/publication/35012> . [Accessed 25<sup>th</sup> March 2024]
- Ref. 15-2. Ministry of Agriculture, fisheries and Food (1988). Agricultural Land Classification of England and Wales. <https://publications.naturalengland.org.uk/publication/6257050620264448> [Accessed 25<sup>th</sup> March 2024]
- Ref. 15-3. Defra (2018). Code of Practice for the Sustainable Use of Soils on Construction Sites. <https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites> [Accessed 25<sup>th</sup> March 2024]
- Ref. 15-4. IEMA (2022). A New Perspective on Land and Soil in Environmental Impact Assessment. [REDACTED] [Accessed 25<sup>th</sup> March 2024]
- Ref. 15-5. Department for Energy Security and Net Zero (2023). National Policy Statement for Renewable Energy Infrastructure (EN-3). <https://assets.publishing.service.gov.uk/media/65a7889996a5ec000d731aba/nps-renewable-energy-infrastructure-en3.pdf> [Accessed 25<sup>th</sup> March 2024]