AENC-ARC-ENV-REP-0033

# Norwich to Tilbury

## Volume 6: Environmental Statement

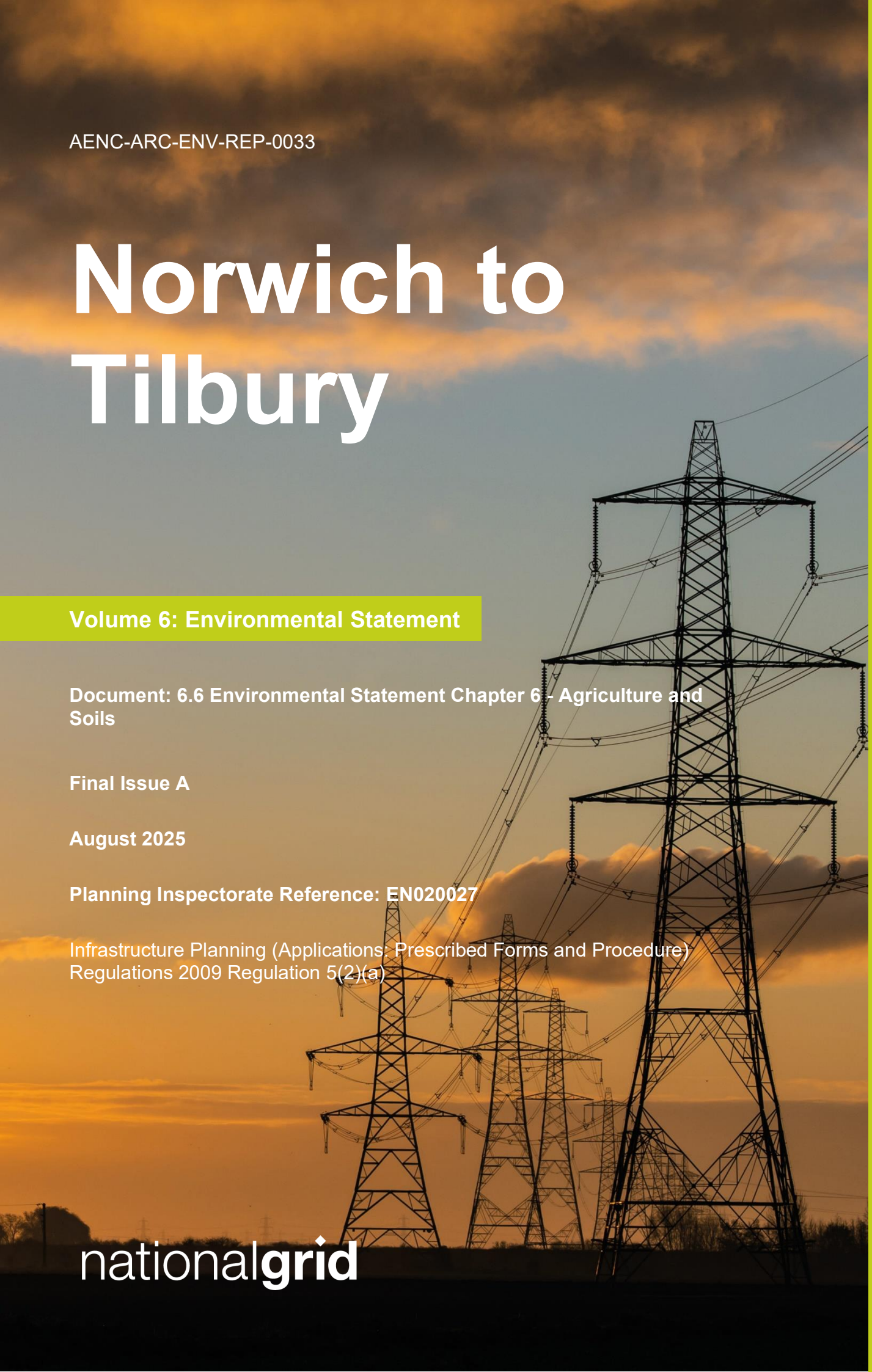
**Document: 6.6 Environmental Statement Chapter 6 - Agriculture and Soils**

**Final Issue A**

**August 2025**

**Planning Inspectorate Reference: EN020027**

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)



nationalgrid

# Contents

# 6. Agriculture and Soils

## 6.1 Introduction

6.1.1 This chapter of the Environmental Statement (ES) (Volume 6 of the Development Consent Order (DCO) application) details the assessment of the potential residual effects of the Norwich to Tilbury project (the 'Project') on Agriculture and Soils. This chapter covers effects on the following receptors during construction and operation (which includes maintenance):

- Soils: Impacts on soil quality and associated ecosystem services
- Agricultural land (including Best and Most Versatile (BMV) land)
- Agricultural landholdings.

6.1.2 There are interrelationships related to the likely residual effects on Agriculture and Soils and other environmental topics. Therefore, please also refer to the following chapters:

- Chapter 7: Air Quality (document reference 6.7)
- Chapter 8: Ecology and Biodiversity (document reference 6.8)
- Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9)
- Chapter 10: Health and Wellbeing (document reference 6.10)
- Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12).

6.1.3 This chapter is supported by the following figures and appendices:

- Figure 6.1: Agriculture and Soils Study Area (document reference 6.6.F1)
- Figure 6.2: Provisional Agricultural Land Classification (ALC) Mapping (document reference 6.6.F2)
- Figure 6.3: Detailed Agricultural Land Classification (ALC) Mapping (document reference 6.6.F3)
- Figure 6.4: Agri-environmental Schemes (document reference 6.6.F4)
- Figure 6.5: Forestry and Woodland Grant Schemes (document reference 6.6.F5)
- Figure 6.6: Soil Association Map (document reference 6.6.F6)
- Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1)
- Appendix 6.2: Agricultural Landholding Information (document reference 6.6.A2).

## 6.2 Regulatory and Planning Policy Context and Guidance

### National Policy Statement (NPS)

6.2.1 Chapter 2: Key Legislation and Planning Policy Context (document reference 6.2) sets out the key overarching policy relevant to the Project. The Overarching National Policy Statement for Energy (EN-1) (Department for Energy Security and Net Zero (DESNZ), 2024a) is the key overarching policy relevant to the Project. This is supported by the National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b).

#### Overarching NPS for Energy (EN-1)

6.2.2 NPS EN-1 (DESNZ, 2024a) contains the following paragraphs relating to Agriculture and Soils which have been considered within this Project.

6.2.3 Paragraph 5.11.12 of EN-1 states: '*Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5)*'.

6.2.4 Paragraph 5.11.13 of EN-1 states: '*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*'.

6.2.5 Paragraph 5.11.14 of EN-1 states: '*Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination*'.

6.2.6 Paragraph 5.11.34 of EN-1 states: '*The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where schemes are to be sited on best and most versatile 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*'.

#### NPS for Electricity Networks Infrastructure (EN-5)

6.2.7 NPS EN-5 sets out limited policy in relation to soils and agriculture. In relation to Electric and Magnetic Fields (EMFs) it states in Paragraph 2.9.58 that '*There is little evidence that exposure of crops, farm animals or natural ecosystems to transmission line EMFs has any agriculturally significant consequences*'.

6.2.8 Paragraph 2.9.25 (final bullet point) of NPS EN-5, in relation to proposals for undergrounding, states that they should consider:

'*…the applicant's commitment, as set out in their ES, to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils (including peat soils), particularly regarding Best and Most Versatile land…. Such a commitment must guarantee appropriate handling of soil, backfilling, and return of the land to the baseline Agricultural Land Classification (ALC), thus ensuring no loss or degradation of agricultural land. Such a commitment should be based on*

*soil and ALC surveys in line with the 1988 ALC criteria and due consideration of the Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites*'.

6.2.9 This assessment has been carried out in accordance with the NPS EN-1, EN-5 and the Electric and Magnetic Field (EMF) Compliance Report (document reference 7.8).

6.2.10 Full consideration of the relevant NPSs for the Project and this chapter can be found in the Policy Compliance Document (document reference 5.7).

## Other National Legislation and Policy

6.2.11 Although the Project will be considered against National Policy stated above, the assessment has also been undertaken in accordance with, and with reference to, the following national legislation and policy:

- Environmental Improvement Plan 2023 (Department for Environment, Food and Rural Affairs (Defra), 2023)
- Agricultural Land (Removal of Surface Soil) Act 1953
- National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2024) and accompanying planning practice guidance.

## Regional and Local Policy

6.2.12 Chapter 2: Key Legislation and Planning Policy Context (document reference 6.2), the Planning Statement (document reference 5.6) and Policy Compliance Document (document reference 5.7) set out relevant regional and local policy.

6.2.13 Key regional and local policy relevant to Agriculture and Soils, that has informed the assessment within this ES (Volume 6 of the DCO application), comprises:

- Greater Norwich Local Plan (Broadland District Council, South Norfolk Council, Norwich City Council and Norfolk County Council adopted 2024)
- South Norfolk Council Development Management Policies Document (South Norfolk Council, adopted 2015)
- Babergh and Mid Suffolk Joint Local Plan: Part 1 (Babergh District Council and Mid Suffolk District Council, adopted 2023)
- North Essex Authorities' Shared Strategic Section 1 Plan (adopted 2021) (Tendring, Colchester and Braintree)
- Tendring District Local Plan 2013-2033 and Beyond, Section 2 (Tendring District Council, adopted January 2022)
- Colchester City Local Plan 2017-2033 Section 2 (Colchester City Council, adopted July 2022)
- Braintree District Council Local Plan 2033 (Braintree District Council, adopted 2022)
- Chelmsford Local Plan 2013-2036 (Chelmsford City Council, adopted 2020)
- Brentwood Borough Council Local Plan 2016-2033 (Brentwood Borough Council, adopted 2022)

- Basildon District Local Plan Saved Policies (Basildon Council, September 2007, updated October 2018)
- Thurrock Council Core Strategy and Policies for Management of Development (Thurrock Council, adopted 2015)
- Tendring District Local Plan 2013-2033 and Beyond: Section 2 (Tendring District Council, adopted 2022).

### Guidance

6.2.14 Relevant guidance, specific to Agriculture and Soils, that has informed this ES (Volume 6 of the DCO application), comprises:

- Safeguarding our Soils: A Strategy for England (Defra, 2009a)
- Technical Information Note 049. ALC Protecting the Best and Most Versatile Agricultural Land (Natural England, 2012)
- Guide to assessing development proposals on agricultural land (Natural England, 2021)
- Guidance Note: Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction (The British Society of Soil Science, 2022)
- BS 3882:2015 Specification for Topsoil (British Standards Institution, 2015)
- BS 8601:2013 Specification for Subsoil and Requirements for Use (British Standards Institution, 2013)
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009b)
- Institute of Quarrying Good Practice Guide for Handling Soils in Mineral Workings (Institute of Quarrying, 2021)
- Agricultural Land Classification of England and Wales. Revised Guidelines and Criteria for Grading the Quality of Agricultural Land (Ministry of Agriculture, Fisheries and Food (MAFF), 1988)
- A New Perspective on Land and Soil in Environmental Impact Assessment (Institute of Environmental Management and Assessment (IEMA), 2022)
- Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human Health (National Highways, 2020)
- DMRB LA 109 Geology and Soils (National Highways, 2019).

## 6.3 Scope of the Assessment

6.3.1 The scope of the assessment has been informed by the Environmental Impact Assessment (EIA) Scoping Report (document reference 6.19) and EIA Scoping Opinion (document reference 6.20) provided by the Planning Inspectorate in 2022 on behalf of the Secretary of State. The scope has also been informed through consultation and engagement with relevant consultees. A summary of the scope of the Agriculture and Soils assessment is provided in Appendix 5.2: Scope of the Assessment (document reference 6.5.A2).

6.3.2 In addition, the EIA Scoping Opinion, together with a response from National Grid against each point raised by the Planning Inspectorate relevant to Agriculture and Soils, is provided in Appendix 5.1: National Grid's response to the EIA Scoping Opinion (document reference 6.5.A1).

## Project Engagement and Consultation

6.3.3 Consultation and engagement with relevant stakeholders has informed the assessment presented in this chapter. Responses to representations received during the statutory consultation in summer 2024 and subsequent consultations in 2025 are provided in Appendix K and Appendix M of the Consultation Report (document reference 5.1.1).

6.3.4 A summary of discussions and how these have influenced the Project, scope and the approach to the assessment are provided in Table 6.1.

Table 6.1 Engagement undertaken relevant to Agriculture and Soils

| Engagement | Comment | National Grid's Response |
|---|---|---|
| Natural England, July 2022 (meeting) | A letter was issued to Natural England setting out the proposed methodology and scope, and this was presented to Natural England in a meeting in July 2022 and a thematic group in July 2022. Natural England advised that applicants should seek to minimise effects on BMV agricultural land, ensure the appropriate handling of soils in line with published guidance (Defra, 2009b) and use experienced soil scientists to advise on and supervise soil handling. | The presence of BMV land has been addressed through a desk-based study and through undertaking detailed ALC surveys to inform the assessment presented in the ES (Volume 6 of the DCO application). During construction, all soil handling would be undertaken in line with the Defra (2009b) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and a requirement included for those advising on and supervising works to have the appropriate skills and qualifications. |
| Natural England, March 2025 (meeting) | A meeting was held with Natural England in March 2025 to discuss the use of ALC predictive mapping as an additional measure (notwithstanding the fact that sufficient survey data is available to support a robust assessment) and present a proposed methodology for undertaking this to fill gaps where site surveys had not been possible. Natural England were in agreement with the approach, advising that predictive models provide detailed insights into soil properties and capabilities across England. | Predictive ALC mapping was applied across the entire Order Limits to evaluate ALC grades in areas where ALC surveys were not conducted and to enable further analysis of the predictive model's accuracy by comparing the predictions with detailed ALC survey data collected in the field. The assessment examines whether the predictive model for un-surveyed areas would underestimate or overestimate the effects on BMV land and are assessed in full in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1). |

| Engagement | Comment | National Grid's Response |
|---|---|---|
| | Natural England requested further engagement once the predictive ALC mapping, as shown on Figure 6.3: Detailed Agricultural Land Classification (ALC) Mapping (document reference 6.6.F3), was finalised to understand the outcomes of the application of predictive mapping across the entire Project. | |
| Natural England, July 2025 (meeting) | A meeting was held with Natural England in July 2025 to present the outcomes of the predictive mapping approach.<br><br>During the meeting Natural England '*… agreed that this data does fill in the gaps and considered it was precautionary enough to inform the EIA*' . | It is noted that there was agreement on the use of the output from the predictive mapping exercise. The predictive mapping has not changed the overall assessment of effects, and any further necessary mitigation measures will be undertaken pre-construction of the applicable works pursuant to a Soil Resources Plan (an Outline Soil Resources Plan forms an appendix to the Outline Code of Construction Practice (CoCP) (document reference 7.2)). |

## 6.4 EIA Approach and Methods

6.4.1 This section describes the methodology used to establish the existing and future baseline together with the methodology/approach used to undertake the assessment on Agriculture and Soils. The overarching approach is also described in Chapter 5: EIA Approach and Method (document reference 6.5).

### Data Sources

6.4.2 The baseline has been informed by a desk study and site survey data which has drawn on the following key information sources:

- British Geological Survey (BGS) online mapping for bedrock and superficial geology (BGS, 2022)
- Ordnance Survey (OS) mapping and aerial photography to establish land use and settlement patterns
- Soils and their use in Eastern England (Hodge, 1984)
- Soils and their use in South East England (Jarvis et al., 1984)
- ALC mapping, including provisional and (where available) detailed ALC mapping from the Multi-Agency Geographic Information for the Countryside (MAGIC) website (Defra, 2024)

- Extent of agri-environmental, and woodland and forestry schemes from the MAGIC website (Defra, 2024)
- The CORINE Land Cover inventory for 2018 (European Union's Copernicus Land Monitoring Service information, 2018) and information gathered from discussions with landowners and land managers
- Natural England (2017) Likelihood of Best and Most Versatile (BMV) Agricultural Land - Strategic scale map Eastern Region
- Site survey data informed by detailed ALC surveys and predictive desk study ALC data informed by maps of NATMAP (National Soil Map) topsoil texture, NATMAP subsoil texture and NATMAP wetness from National Soil Resources Institute.

## Study Area

6.4.3 The Study Area for Agriculture and Soils comprises the area directly affected by the Project, as defined by the Order Limits as shown on Figure 6.1: Agriculture and Soils Study Area (document reference 6.6.F1).

6.4.4 A 'Wider Study Area' is also considered, which extends to 1 km around the Order Limits to provide wider environmental context. This is considered an appropriate Study Area based on professional judgement, knowledge of similar projects and DMRB LA 09 Geology and Soils (National Highways, 2019).

6.4.5 The assessment for Agriculture and Soils presented in this chapter is based specifically on the Study Area defined above, rather than the Wider Study Area. The assessment is supported by site surveys conducted exclusively within the Study Area.

## Site Survey

6.4.6 The ALC assessment of land within the Order Limits of the Project has been undertaken using two approaches:

6.4.7 A detailed ALC survey of approximately 1,011 ha (representing 54% of the proposed survey areas within the Order Limits) was undertaken between September 2023 and January 2025, in accordance with the published ALC guidelines (MAFF, 1988). ALC surveys were undertaken within the Order Limits, along the central alignment at a density of 1 auger per 100 m, with additional auger points at a density of 1 auger per hectare (ha) located where the Order Limits are wider to accommodate, for example, substations and Cable Sealing End (CSE) compounds. The auger bore locations are presented in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1). Surveys initially prioritised areas of permanent infrastructure (including substation extension areas, substation and CSE compound footprints, and areas of undergrounding) where land access was available. Soil profiles were further examined at 12 soil pit locations across the route in a number of representative soil types, where soil pit locations are presented in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1).

6.4.8 Following the detailed ALC surveys, predictive ALC grading was undertaken on a 100 m grid (equivalent to approximately one sample point per hectare) across the entire Order Limits. This approach provides predicted ALC grades for the approximately 856 ha where surveys were not possible. By applying this approach across the entire Order Limits, it allows for analysis on the accuracy of the prediction

(comparing predicted grades against surveyed grades) and assessment of whether the prediction under- or overestimates the effects on BMV land. The predictive model was refined by integrating detailed ALC survey data, surveyor's field observation, geological data, satellite imagery, auger bore data from the national survey database and professional judgement. It is recognised that landscapes, geologies and soil types will give different levels of accuracy in the prediction, but it is considered that use of this approach, in the absence of survey access, provides a better estimate of the extent of BMV land than relying solely on the available Provisional ALC mapping.

6.4.9 Predictive ALC grading was carried out on areas where it was not possible to undertake a detailed ALC survey due to constraints relating to landowner access at the time of the survey access request. A soil survey would be required post-consent / pre-construction in the areas where a detailed ALC survey was not undertaken, to inform a Soil Resource Plan (SRP). An Outline SRP is included within the CoCP (document reference 7.2), which would be developed by the Main Works Contractor(s) into the final pre-construction SRP (to include the post-consent / pre-construction survey data).

6.4.10 The predictive ALC approach was developed through key engagement with stakeholders, including Natural England. As a predictive ALC map has not been published for England to date, the predictive ALC grading follows the approach of the Welsh Government's (2017) Predictive Agricultural Land Classification Map (Wales) Guidance Note, which is in turn based on the published ALC guidelines (MAFF, 1988).

6.4.11 For the predictive ALC calculations, the detailed ALC survey data and the following desk-based information was gathered for locations on a 1 ha grid to assess the most likely limiting factor in relation to land grade:

- Climate
- Elevation
- Gradient
- Flood zone
- BGS Bedrock (1:50k)
- BGS Superficial Deposits (1:50k)
- Soil association and associated characteristics (texture, wetness class and droughtiness)
- MAFF Provisional (Pre-1988) ALC grade
- Natural England (2017) Likelihood of Best and Most Versatile (BMV) Agricultural Land - Strategic scale map Eastern Region.

6.4.12 This combined information from the detailed surveys and the ALC predictions was used to determine the extent of land at each ALC grade present within the Order Limits. Details of the methodology used are presented in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1).

6.4.13 In addition, in October 2024, a more detailed soil survey was undertaken on a 50 m grid within the Order Limits where the Project is proposed to cross the River Waveney floodplain to confirm the presence / absence of peat or organic-rich soils. At each auger borehole, soil examination extended to approximately 2 m depth,

rather than the typical depths of 1.2 m for ALC surveys. This extended depth was necessary to accurately determine peat and organic soil depths, which often exceed 1.2 m. Soil samples were also taken to determine the presence of potentially acid sulphate soils in the Waveney Valley. Details of the methodology used are presented in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1).

6.4.14 Areas proposed for Biodiversity Net Gain (BNG) within the Order Limits have also been surveyed where required, such as in areas where the BNG habitat would constitute a land use change away from agricultural production or which may result in a change to the land grade (such as topsoil stripping or soil inversion).

## Assessment Methodology

6.4.15 This section sets out the methodology used for assessing the effects on Agriculture and Soils for those aspects scoped into the assessment, developed from the methodology set out within the EIA Scoping Report (document reference 6.19) and agreed in the EIA Scoping Opinion (document reference 6.20). The scope of the Agriculture and Soils assessment is provided in Appendix 5.2: Scope of the Assessment (document reference 6.5.A2).

6.4.16 The following methodology sets out how the sensitivity of receptors, the degree of damage to / loss of soil resources, agricultural land and agricultural landholdings, and the subsequent effects of the Project on Agriculture and Soils has been assessed.

6.4.17 The assessment draws on guidance set out by IEMA on how land and soil should be assessed in EIA (IEMA, 2022). The IEMA guidance seeks to move practice away from a narrow focus on quantifying and financially compensating effects on agricultural land and advocates a new and wider approach to assessing the soil functions, ecosystem services and natural capital provided by land and soils. The concept of ecosystem services encompasses the vital benefits that natural systems provide to humans and the environment. In the context of soil functions, these services include key processes such as biomass production (e.g., food, fibre, and fuel), the provision of ecological habitats, and the role of soils as a platform for green infrastructure. Soils also play a critical part in regulating atmospheric interactions, supporting the carbon, nitrogen, and hydrological cycles, and preserving archaeology, cultural heritage, and geodiversity. Additionally, they serve as a source of materials.

6.4.18 Published guidance set out in DMRB LA 112 Population and Human Health (National Highways, 2020) has been used to assess the effects on agricultural landholdings. The agricultural landholding information enables an understanding of agricultural operations and an assessment of effects on agricultural holdings.

6.4.19 The assessment in this chapter assumes that all mitigation measures – including embedded (design measures), standard practice, and any additional mitigation (as defined in Chapter 4: Project Description (document reference 6.4)) - are in place before assessing the effects. This is in accordance with guidance from IEMA as part of preparing a proportional assessment (IEMA, 2024) and the EIA Scoping Report (document reference 6.19).

### Value/Sensitivity

6.4.20 Table 6.2 to Table 6.4 set out the criteria which have been used to determine the sensitivity of receptors addressed in the Agriculture and Soils assessment.

6.4.21 Table 6.2 combines the criteria for sensitivity for both agricultural land and soils, but it is also recognised that some soils are more sensitive to damage when handled during construction than others.

6.4.22 Table 6.3 provides a summary of broad soil types and their sensitivity to structural damage. Table 6.4 sets out the sensitivity criteria of agricultural landholdings.

Table 6.2 Criteria for sensitivity of agricultural land and soils

| Receptor Sensitivity | Soil Resource and Soil Functions |
|---|---|
| Very High | Biomass production: ALC Grades 1 and 2;<br><br>Ecological habitat, soil biodiversity and platform for landscape: Soils supporting protected features within a European site (e.g., Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites); Peat soils; Soils supporting a National Park, or ancient woodland;<br><br>Soil carbon: Peat soils;<br><br>Soils with potential for ecological / landscape restoration;<br><br>Soil hydrology: Very important catchment pathway for water flows and flood risk management;<br><br>Archaeology, Cultural Heritage, Community Benefits and Geodiversity: Scheduled Monuments and adjacent areas; World Heritage and European sites; Soils with known archaeological interest; Soils supporting community / recreational / educational access to land covered by National Park designation; and<br><br>Source of materials: Important surface mineral reserves that would be sterilised (i.e., without future access). |
| High | Biomass production: ALC Grade 3a;<br><br>Ecological habitat, soil biodiversity and platform for landscape: Soils supporting protected features within a UK designated site (e.g., United Nations Educational, Scientific and Cultural Organisation (UNESCO) Geoparks, Sites of Specific Interest (SSSI) or National Landscapes (an Area of Outstanding Natural Beauty (AONB)), Special Landscape Areas (SLAs) and Geological Conservation Review sites); Native Forest and woodland soils; Unaltered soils supporting seminatural vegetation (including the UKBAP Priority habitats or Section 6 habitats in Wales);<br><br>Soil carbon: Organo-mineral soils (e.g., peaty soils);<br><br>Soil hydrology: Important catchment pathway for water flows and flood risk management;<br><br>Archaeology, Cultural Heritage, Community Benefits and Geodiversity: Soils with probable but as yet unproven (prior to being revealed by construction) archaeological interest; historic parks and gardens; Regionally Important Geological Site (RIGS); Soils supporting community / recreational / educational access to RIGS and National Landscapes; and |

| Receptor Sensitivity | Soil Resource and Soil Functions |
|---|---|
| | Source of materials: Surface mineral reserves that would be sterilised (i.e., without future access). |
| Medium | Biomass production: ALC Grade 3b;<br><br>Ecological habitat, soil biodiversity and platform for landscape: Soils supporting protected or valued features within non-statutory designated sites (e.g., Local Nature Reserves (LNRs), Local Geological Sites (LGSs), Sites of Nature Conservation Importance (SNCIs), SLAs; Non-Native Forest and woodland soils;<br><br>Soil carbon: Mineral soils;<br><br>Soil hydrology: Important minor catchment pathway for water flows and flood risk management;<br><br>Archaeology, Cultural Heritage, Community Benefits and Geodiversity: Soils with possible but as yet unproven (prior to being revealed by construction) archaeological interest; Soils supporting community / recreational / educational access to land; and<br><br>Source of materials: Surface mineral reserves that would remain accessible for extraction. |
| Low | Biomass production: ALC Grade 4 and 5 or Urban soils;<br><br>Ecological habitat, soil biodiversity and platform for landscape: Soils supporting valued features within non-designated notable or priority habitats / landscapes. Agricultural soils;<br><br>Soil carbon: Mineral soils;<br><br>Soil hydrology: Pathway for local water flows and flood risk management;<br><br>Archaeology, Cultural Heritage, Community Benefits and Geodiversity: Soils supporting no notable cultural heritage, geodiversity nor community benefits; Soils supporting limited community / recreational / educational access to land; and<br><br>Source of materials: Surface mineral reserves that would remain accessible for extraction. |
| Very Low | As for low sensitivity, but with only indirect, tenuous, and unproven links between sources of impact and soil functions. |

Table 6.3 Criteria for sensitivity for soil handling

| Sensitivity of Topsoil and Subsoil | Soil Texture, Field Capacity Days (FCD) and Wetness Class |
|---|---|
| High sensitivity (low resilience to structural damage) | 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 FCD are 150 or greater;<br>Medium-textured soils (silt loams, medium silty clay loams, medium clay loams and sandy clay loams) where the FCDs are 225 or greater; and<br>All soils in wetness class (WC) WCV or WCVI. |
| Medium sensitivity (medium resilience to structural damage) | 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;<br>Medium-textured soils (silt loams, medium silty clay loams, medium clay loams and sandy clay loams) where FCDs are fewer than 225; and<br>Sands, loamy sands, sandy loams and sandy silt loams where the FCDs are 225 or greater or are in wetness classes WCIII and WCIV. |
| Low sensitivity (high resilience to structural damage) | 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 wetness classes WCI to WCII. |

Table 6.4 Criteria for sensitivity of agricultural landholding

| Receptor Sensitivity | Description |
|---|---|
| High | Very High –<br>Agricultural landholdings:<br>1) Areas of land in which the enterprise is wholly reliant on the spatial relationship of land to key agricultural infrastructure; and<br>2) Access between land and key agricultural infrastructure is required on a frequent basis (daily).<br>High –<br>Agricultural landholdings:<br>1) Areas of land in which the enterprise is dependent on the spatial relationship of land to key agricultural infrastructure; and<br>2) Access between land and key agricultural infrastructure is required on a frequent basis (weekly). |
| Medium | Agricultural landholdings: |

| Receptor Sensitivity | Description |
|---|---|
| | 1) Areas of land in which the enterprise is partially dependent on the spatial relationship of land to key agricultural infrastructure; and<br><br>2) Access between land and key agricultural infrastructure is required on a reasonably frequent basis (monthly). |
| Low | Agricultural landholdings:<br><br>1) Areas of land in which the enterprise is not dependent on the spatial relationship of land to key agricultural infrastructure; and<br><br>2) Access between land and key agricultural infrastructure is required on an infrequent basis (monthly or less frequent). |
| Very Low | Agricultural landholdings:<br><br>1) Areas of land which are infrequently used on a non-commercial basis. |

### Impact Magnitude

6.4.23 Table 6.5 and Table 6.6 from the IEMA guidance set out the criteria which has been used to assess to magnitude of impact on receptors identified in the Agriculture and Soils assessment.

Table 6.5 Criteria for magnitude of impact on agricultural land and soils

| Magnitude of Impact (Change) | Description of Impacts Restricting Proposed Land Use |
|---|---|
| Large | 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 set out in Table 6.4 (including effects from 'Temporary Developments' [1]);<br><br>or<br><br>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 set out in Table 6.4 (including effects from 'Temporary Developments'[1]). |
| 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 set out in Table 6.4 (including effects from 'Temporary Developments'[1]);<br><br>or |

[1] Temporary developments can result in a permanent impact if resulting disturbance or land use changes cause permanent damage to soils

| Magnitude of Impact (Change) | Description of Impacts Restricting Proposed Land Use |
|---|---|
| | 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 set out inTable 6.4. |
| Small | 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 set out in Table 6.4;<br><br>or<br><br>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 set out in Table 6.4. |
| Very Small | No discernible loss or reduction or improvement of soil functions or soil volumes that restrict current or proposed land use. |

Table 6.6 Criteria for magnitude of impact on agricultural landholding

| Magnitude of Impact (Change) | Description of Impacts Restricting Proposed Land Use |
|---|---|
| Large | Private property and housing, community land and assets, development land and businesses and agricultural landholdings:<br><br>1) Loss of resource and / or quality and integrity of resource; severe damage to key characteristics, features or elements, e.g., direct acquisition and demolition of buildings and direct development of land to accommodate highway assets; and / or<br><br>2) Introduction (adverse) or removal (beneficial) of complete severance with no / full accessibility provision. |
| Medium | Private property and housing, community land and assets, development land and businesses and agricultural landholdings:<br><br>1) Partial loss of / damage to key characteristics, features or elements, e.g., partial removal or substantial amendment to access or acquisition of land compromising viability of property, businesses, community assets or agricultural holdings; and/or<br><br>2) Introduction (adverse) or removal (beneficial) of severe severance with limited / moderate accessibility provision. |
| Small | Private property and housing, community land and assets, development land and businesses and agricultural landholdings: |

| Magnitude of Impact (Change) | Description of Impacts Restricting Proposed Land Use |
|---|---|
| | 1) A discernible change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements, e.g., amendment to access or acquisition of land resulting in changes to operating conditions that do not compromise overall viability of property, businesses, community assets or agricultural holdings; and / or<br><br>2) Introduction (adverse) or removal (beneficial) of severance with adequate accessibility provision. |
| Very Small | Private property and housing, community land and assets, development land and businesses and agricultural landholdings:<br><br>1) Very minor loss or detrimental alteration to one or more characteristics, features or elements, e.g., acquisition of non-operational land or buildings not directly affecting the viability of property, businesses, community assets or agricultural holdings; and / or<br><br>2) Very minor introduction (adverse) or removal (beneficial) of severance with ample accessibility provision.<br><br>If there is no change there is no loss or alteration of characteristics, features, elements or accessibility; no observable impact in either direction. |

### Significance

6.4.24 Significance of effect has been derived by considering the sensitivity (or value) of the agriculture and soil receptors within the Study Area, and the magnitude of change (impact) likely to be caused by the activities of the Project. These factors are combined to give an overall significance of effect.

6.4.25 Significance has been derived using the matrix set out in Chapter 5: EIA Approach and Method (document reference 6.5). This has been supplemented by professional judgement which, where applicable, has been explained to give the rationale behind the values assigned. Likely significant effects, in the context of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations'), are considered to be effects of moderate or greater significance.

### Limitations of Assessment

6.4.26 A total of 1,011 ha were surveyed; however, ALC surveys were not undertaken across some areas within the Order Limits due to access restrictions at the time of the surveys being undertaken.

6.4.27 Where ALC surveys were not completed, a predictive assessment was undertaken of the likely soil types present and the factors affecting soils at any given location to assess the potential land grade (using the MAFF revised guidelines and criteria for grading the quality of agricultural land), and this is explained under the 'Site Survey' subheading earlier in this section. It is noted that this approach has limitations when compared to ALC surveys, with the outcome for each point assessed being a modelled prediction and not definitive, albeit based on the best available data. The method adopted, however, has been used to supplement the available provisional

ALC mapping at a scale of 1:250,000 (which is not considered suitable for use at a project level) to provide a greater level of refinement than using the provisional ALC 1:250,000 mapping alone. This predictive data has been used to support the data obtained via the ALC surveys and the assessment of effects. Given the extent of land covered by detailed ALC surveys (1,011 ha) within the Order Limits and the extent of BMV land confirmed through these surveys, the available information is sufficient to ensure a rational and informed judgement could be formed to assess the likely significance of effects of the Project on agricultural land and soils, and to ensure that the overall assessment of significance has not been under-reported.

6.4.28 The approach to determine ALC grade of non-surveyed areas of the Order Limits using predictive ALC grading was presented to and agreed with Natural England in March 2025, as detailed in Table 6.1.

6.4.29 Figure 6.3: Detailed ALC Mapping (document reference 6.6.F3) shows the results of the detailed ALC survey and outputs of the modelled prediction of ALC.

## Key Parameters for Assessment and Assumptions

6.4.30 This section describes the key parameters and assumptions that have been used/ made when undertaking the assessment presented within this chapter. The assumptions are based on information presented within Chapter 4: Project Description (document reference 6.4) and include:

- Ducting: It is assumed that a ducted system is the preferred approach for opencut installation of underground cables, which would result in a more flexible construction programme and enable quicker reinstatement of ground compared to a traditional direct burial method, where the trench would remain open for much longer. There may be locations where ducting is not the best solution, such as where topography limits installation techniques. In such cases, standard opencut methods may be employed (i.e. direct burial)
- Land drainage: It has been assumed that in accordance with standard mitigation measures, where appropriate, pre-construction field drainage would be installed within working areas to help prevent possible waterlogging of working areas and therefore the need for temporary dewatering during construction. This would also enable the landowner's current drainage systems to continue working throughout construction. Pre-construction field drainage would help prevent damage to the soil structure, aid recovery from construction activities and help prevent any further drainage problems. Landowners would be consulted on the design of the land drainage proposals
- Soil stripping: It is assumed that within the overhead line sections, soil stripping would be required for the working areas, the temporary construction compounds, the temporary haul roads / access, and pylon foundations. It is assumed that soil stripping would be required for substation works (including the permanent site area and any working areas) at the existing Bramford Substation, as well as constructing the new East Anglia Connection Node (EACN) Substation and Tilbury North Substation. It is assumed that soil stripping would be required for the CSE compound areas (including permanent site areas and any working areas) and the permanent access roads. It is also assumed that soil stripping would be required for the areas within the construction corridor within underground cable sections (excluding compound / storage area requirements) where land and soils would be disturbed from construction activities unless a specific commitment has

been made otherwise. Topsoil and subsoil would be separated and stored locally in situ for reuse, unless a commitment has been made otherwise

- Soil reinstatement: It is assumed that where any stripped topsoil is reinstated, the site would be returned to its former use and condition, subject to any planting restrictions or agreements with landowners. Reinstatement would also include landscaping
- Soil reuse: It is assumed that any soil excavated from the Project (e.g. displaced from the cable ducts or pylon foundations) would be reused on site where soil is suitable for reuse (for example, not contaminated and giving consideration to land holdings and applicable biosecurity measures). This could be through the backfilling of foundations removed from 132 kV overhead line removal, the cable trenches and for landscaping. It is assumed that all soil could be reused on site; however, if it arises that excess soil cannot be reused on site, this soil would be taken off site.
- Permanent land-take would be associated with the CSE compounds, the EACN Substation, Tilbury North Substation and the substation extension at Bramford Substation (including any permanent access routes) and the pylon foundations
- Operation (and maintenance): It is assumed that any activities required to operate and maintain the reinforcement that involve soil stripping would be undertaken in accordance with standard National Grid processes and good practice soil handling measures.

## 6.5 Baseline Conditions

### Existing Baseline

6.5.1 Baseline conditions have been gathered from both desk-based information and soil / ALC surveys and are presented with reference to the section of the Project within which they are located.

#### Geology

6.5.2 The bedrock geology underlying the northern section (Sections A and B, South Norfolk District and Mid Suffolk District) of the Study Area is described as predominantly comprising the White Chalk Subgroup, Newhaven Chalk Formation and Crag Group (BGS, 2022).

6.5.3 For the remainder of the Project, south of Ipswich (Sections C-H), there are multiple bedrock formations mapped as being present, including the Thames Group, Thanet Formation, Lambeth Group, Red Crag, London Clay Formation, Claygate Member, Bagshot Formation, Harwich Formation and White Chalk Subgroup (BGS, 2022).

6.5.4 The superficial geology within Sections A, B, D, E and F generally comprises the Lowestoft Formation (Diamicton). The superficial geology within Section C comprises large areas of Cover Sands. Sections G and H are recorded as largely absent of superficial geology, but where present the superficial deposits are dominated by the river valley deposits of Alluvium, River Terrace Deposits and Head Deposits.

6.5.5 Further detail is included within Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9).

## Soils

6.5.6 Predominant soil types within the Study Area are slightly acidic loamy and clayey soils with impeded drainage with moderate to high fertility, and slowly permeable seasonally wet, slightly acidic but base-rich loamy and clayey soils with moderate fertility. The soil types through the southern section (Sections C-H: Babergh District, Colchester City and Tendring District through to Thurrock) of the Study Area also show a high prevalence of soils described as freely draining, slightly acidic loamy soils. The Study Area also includes small areas of fen peat soils near Roydon and Diss in the south of Norfolk (Sections A and B) (Figure 6.6: Soil Association Map (document reference 6.6.F6)). The main soil associations identified within the Study Area, split by Project Section, are presented in Table 6.7.

Table 6.7 Soil associations across the Project

| Soil Association | Area / Project Section(s) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | South Norfolk District – A | Mid Suffolk District – B | District – C | Colchester City– C/D | Tendring District – C | Braintree District – E | Chelmsford City – F/G | Brentwood Borough – G | Basildon Borough – G/H | Thurrock – H |
| Ashley | | X | | | | X | | | | |
| Beccles 1 | X | X | | | | | | | | |
| Beccles 2 | | X | | | | | | | | |
| Beccles 3 | | X | X | X | X | | | | | |
| Burlingham 1 | X | | | | | | | | | |
| Burlingham 3 | X | X | | | | | | | | |
| Bursledon | | | | | | | X | X | X | X |
| Efford 1 | | | | | | X | X | | | |
| Essendon | | | | | | | X | X | X | |
| Fladbury 1 | | | X | X | X | X | X | | | |
| Fladbury 3 | | | | X | | | | | X | X |
| Fyfield 4 | | | | | | | | | X | X |
| Hamble 2 | | | | | | X | X | | | |

| Soil Association | Area / Project Section(s) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | South Norfolk District – A | Mid Suffolk District – B | District – C | Colchester City– C/D | Tendring District – C | Braintree District – E | Chelmsford City – F/G | Brentwood Borough – G | Basildon Borough – G/H | Thurrock – H |
| Hanslope | X | X | X | X | X | X | X | | | |
| Hornbeam 3 | | | X | X | X | X | X | | | |
| Hucklesbrook | | | | | | | | | X | X |
| Isleham 2 | X | | | | | | | | | |
| Ludford | | X | X | X | X | X | X | | | |
| Mendham | X | X | | | | | | | | |
| Melford | | | | | | | | | | |
| Midelney | | X | X | X | X | | | | | |
| Newport 1 | X | | | | | | | | | |
| Newport 3 | X | | | | | | | | | |
| Newport 4 | X | X | | | | | | | | |
| Oak 2 | | | | X | | X | X | | | |
| Ollerton | | X | | | | | | | | |
| Park Gate | | | | | | | | | X | X |

| Soil Association | Area / Project Section(s) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | South Norfolk District – A | Mid Suffolk District – B | District – C | Colchester City– C/D | Tendring District – C | Braintree District – E | Chelmsford City – F/G | Brentwood Borough – G | Basildon Borough – G/H | Thurrock – H |
| Ragdale | | X | | | | | | | | |
| Ratsborough | | | | | | | X | | X | X |
| Stretham | | | | | | | X | | | |
| Swaffham Prior | | X | | | | | | | | |
| Tendring | | | X | X | X | | | | | |
| Wallasea 1 | | | | | | | | | X | X |
| Windsor | | | X | X | X | | X | X | X | X |
| Wix | | | X | X | X | | | | | |

6.5.7 The main Soil Associations (representing a group of soil series (soil types) which are typically found occurring together in the landscape) identified within the Order Limits are described (Hodge, 1984) as follows:

- Ashley: Fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging associated with similar but wetter soils. Some calcareous and non-calcareous slowly permeable clayey soils
- Beccles 1: Slowly permeable seasonally waterlogged fine loamy over clayey soils
- Beccles 2: Slowly permeable seasonally waterlogged fine and coarse loamy over clayey soils. Some deep sandy soils affected by groundwater
- Beccles 3: Slowly permeable seasonally waterlogged fine loamy over clayey soils and similar soils with only slight seasonal waterlogging
- Burlingham 1: Deep coarse and fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Some deep well drained coarse loamy and sandy soils
- Burlingham 3: Deep fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Some fine or coarse loamy over clayey soils and some deep well drained coarse loamy over clayey, fine loamy and sandy soils
- Bursledon: Deep fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging associated with deep coarse loamy soils variably affected by groundwater. Some slowly permeable seasonally waterlogged loamy over clayey soils. Landslips and associated irregular terrain locally
- Efford 1: Well drained fine loamy soils often over gravel associated with similar permeable soils variably affected by groundwater
- Essendon: Slowly permeable seasonally waterlogged coarse loamy over clayey soils. Associated with similar fine loamy over clayey and fine silty over clayey soils
- Fladbury 1: Stoneless clayey soils, in places calcareous variably affected by groundwater. Flat land. Risk of flooding
- Fladbury 3: Stoneless clayey, fine silty and fine loamy soils affected by groundwater. Risk of flooding
- Fyfield 4: Deep well drained often stoneless coarse loamy and sandy soils. Some fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging and some slowly permeable seasonally waterlogged fine loamy over clayey soils. Risk of water erosion
- Hamble 2: Deep stoneless well drained silty soils and similar soils affected by groundwater, over gravel locally. Usually flat land
- Hanslope: Slowly permeable calcareous clayey soils. Some slowly permeable non-calcareous clayey soils, all with a slight risk of erosion
- Hornbeam 3: Deep fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging. Some slowly permeable seasonally waterlogged fine loamy over clayey soils. Calcareous subsoils in places
- Hucklesbrook: Well drained coarse loamy and some sandy soils, commonly over gravel. Some similar permeable soils affected by groundwater. Usually on flat land

- Isleham 2: Deep permeable sandy and peaty soils affected by groundwater. Very complex soil pattern with hummock and hollow microrelief locally. Risk of winter flooding. Risk of wind erosion
- Ludford: Deep well drained fine loamy, coarse loamy and sandy soils, locally flinty in places over gravel. Slight risk of water erosion
- Mendham: Deep peat soils associated with clayey over sandy soils, in part very acid with high groundwater levels and risk of flooding
- Melford: Deep well drained fine loamy over clayey, coarse loamy over clayey and fine loamy soils, some with calcareous clayey subsoils
- Midelney: Stoneless clayey soils mostly overlying peat. Soils variably affected by groundwater which is, in places, controlled by ditches and pumps. Flat land. Risk of flooding locally
- Newport 1: Deep well drained sandy and coarse loamy soils. Some sandy soils affected by groundwater. Risk of wind and water erosion
- Newport 3: Deep well drained sandy and coarse loamy soils. Some coarse and fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Risk of wind erosion
- Newport 4: Deep well drained sandy soils. Some very acid soils with bleached subsurface horizon especially under heath or in woodland. Risk of wind erosion
- Oak 2: Slowly permeable seasonally waterlogged fine loamy over clayey and fine silty over clayey soils. Some similar soils with slowly permeable subsoils and slight seasonal waterlogging. Some clayey soils with chalky subsoil
- Ollerton: Deep permeable sandy and coarse loamy soils affected by groundwater. Some coarse loamy soils with slowly permeable subsoils and slight seasonal waterlogging
- Park Gate: Deep stoneless silty soils variable affected by groundwater
- Ragdale: Slowly permeable seasonally waterlogged clayey and fine loamy over clayey soils. Some slowly permeable calcareous clayey soils especially on slopes
- Ratsborough: Fine silty and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging. Some slowly permeable seasonally waterlogged fine loamy over clayey and clayey soils
- Stretham: Deep well drained calcareous clayey soils associated with similar but slowly permeable soils
- Swaffham Prior: Well drained calcareous coarse and fine loamy soils over chalk rubble. Some similar shallow soils. Deep non-calcareous loamy soils in places. Slight risk of water erosion
- Tendring: Deep often stoneless coarse loamy soils. Some slowly permeable seasonally waterlogged coarse and fine loamy over clayey soils. Patterned ground locally
- Wallasea 1: Deep stoneless non-calcareous and calcareous clayey soils. Soils locally have humose or peaty surface horizons. Groundwater controlled by ditches and pumps. Flat land. Slight risk of flooding

- Windsor: Slowly permeable seasonally waterlogged clayey soils mostly with brown subsoils. Some fine loamy over clayey and fine silty over clayey soils and, locally on slopes, clayey soils with only slight seasonal waterlogging
- Wix: Deep permeable coarse loamy soils affected by groundwater. Associated with well drained sandy and coarse loamy soils and some slowly permeable seasonally waterlogged fine loamy over clayey and clayey soils giving patterned ground locally. Slight risk of water erosion.

### Agricultural Land

### Provisional Agricultural Land Classification

6.5.8 Provisional ALC mapping, shown on Figure 6.2: Provisional ALC Mapping (document reference 6.6.F2), shows that the Study Area comprises predominantly Grade 2 and Grade 3 land, with Grade 1 land largely recorded around the Burnt Heath area (Section C). This mapping, at a scale of 1:250,000, does not distinguish between Grades 3a and 3b (and cannot be used to inform site-specific assessments) but provides an indication of the likely land classification. The Provisional ALC information available indicated that a large proportion of the Order Limits may comprise BMV land. BMV land comprises land in Grades 1, 2, and 3a. The proportion of land in each Project Section provisionally graded as Grades 1, 2 and 3 is set out in Table 6.8. Nationally, 65.1% of land in England (MAFF and ADAS, 1983) is provisionally graded as Grades 1, 2 and 3 (not distinguishing between Grades 3a and 3b), and therefore likely to comprise BMV land.

Table 6.8 Provisionally mapped BMV land across the Project

| Area | Project Section(s) | Extent of Grades 1, 2 and 3 land (ha) | % Proportion |
|---|---|---|---|
| England | - | 8,493,646 | 65.1 |
| South Norfolk District | A | 473 | 98.4 |
| Mid Suffolk District | B | 794 | 97.9 |
| Babergh District, Colchester District, Tendring District | C | 753 | 98.9 |
| Colchester District | D | 336 | 100 |
| Braintree District | E | 286 | 100 |
| Chelmsford District | F | 392 | 100 |
| Chelmsford, Brentwood District and Basildon District | G | 257 | 94.0 |

| Area | Project Section(s) | Extent of Grades 1, 2 and 3 land (ha) | % Proportion |
|---|---|---|---|
| Basildon District and Thurrock | H | 374 | 88.1 |

6.5.9 Climate is unlikely to pose an overall limitation on ALC grade in relation to the criteria set out in the ALC Guidelines (MAFF, 1988). Climate does, however, have an important influence on the interactive limitations of soil wetness and soil droughtiness, which is the balance between rainfall and water losses from the soil. The Study Area has both relatively low rainfall and a long growing season, acting to decrease the severity of any potential soil wetness limitation, but increasing the severity of any potential soil droughtiness limitation.

6.5.10 Desk based detailed ALC mapping is only partially available for the Study Area, as shown on Figure 6.3: Detailed ALC Mapping (document reference 6.6.F3). The small areas of surveyed land (MAGIC website (Defra, 2024)) show ALC grades ranging from Grade 1 through to Grade 3b, confirming the likelihood of BMV land being present within the Order Limits.

6.5.11 Due to the scale of the Project, information presented in the profiles of the National Character Areas (NCAs) provides a useful indication of the extent of each grade of land (Natural England, 2014a–f), which can be compared to the extent of each grade at a national level.

6.5.12 The Project extends through six NCAs (NCA 78, NCA 79, NCA 80, NCA 83, NCA 86 and NCA 111 – from Central North Norfolk to the Northern Thames Basin). Table 6.9 presents the extent of each grade provisionally mapped across the NCAs, which aligns with the Likelihood of BMV Agricultural Land – Strategic scale map Eastern Region (Natural England, 2017).

Table 6.9 Provisional Agricultural Land Classifications by area (ha) for the NCA profiles across the Project

| ALC Grade | NCA 78: Central North Norfolk [Area (%)] | NCA 79: North East Norfolk and Flegg [Area (%)] | NCA 80: The Broads [Area (%)] | NCA 83: South Norfolk and High Suffolk Claylands [Area (%)] | NCA 86: South Suffolk and North Essex Claylands [Area (%)] | NCA 111: Northern Thames Basin [Area (%)] |
|---|---|---|---|---|---|---|
| Grade 1 | 973 (1%) | 9,018 (37%) | 6,004 (10%) | 0 (0%) | 0 (0%) | 23 (<1%) |
| Grade 2 | 18,169 (25%) | 7,639 (31%) | 7,701 (13%) | 30,596 (15%) | 199,378 (61%) | 28,676 (11%) |
| Grade 3 | 41,178 (57%) | 5,659 (23%) | 31,078 (55%) | 171,364 (80%) | 109,676 (33%) | 120,556 (48%) |

| ALC Grade | NCA 78: Central North Norfolk [Area (%)] | NCA 79: North East Norfolk and Flegg [Area (%)] | NCA 80: The Broads [Area (%)] | NCA 83: South Norfolk and High Suffolk Claylands [Area (%)] | NCA 86: South Suffolk and North Essex Claylands [Area (%)] | NCA 111: Northern Thames Basin [Area (%)] |
|---|---|---|---|---|---|---|
| Total extent of Grades 1, 2 and 3 | 60,320 (83%) | 22,316 (91%) | 44,783 (78%) | 210,960 (95%) | 309,054 (94%) | 149,255 (60%) |
| Grade 4 | 1,888 (3%) | 0 (0%) | 3,036 (5%) | 11,530 (5%) | 2,280 (1%) | 5,418 (2%) |
| Grade 5 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 39 (<1%) |
| Non-agricultural | 6,547 (9%) | 762 (3%) | 6,795 (12%) | 169 (<1%) | 4,620 (1%) | 19,032 (8%) |
| Urban | 3,280 (5%) | 1,573 (6%) | 1,676 (3%) | 857 (<1%) | 13,034 (4%) | 70,745 (28%) |

6.5.13 This information shows that, in the regions that the Project passes through, there is generally a greater proportion of higher-grade agricultural land than compared to the average for England. While the Provisional ALC mapping does not distinguish between Grades 3a and 3b and therefore does not correlate directly with the proportion of BMV land present, it provides an indication that these areas are likely to comprise a greater extent of BMV land than compared to the average for England.

### Detailed Agricultural Land Classification

6.5.14 The ALC site surveys undertaken for the Project have confirmed the presence of BMV land within the Order Limits, as shown on Figure 6.3: Detailed ALC Mapping (document reference 6.6.F3). Within the 1,011 ha of land surveyed, 83.7% of the land is BMV land in Grades 1, 2, and 3a.

6.5.15 The total extent of each ALC grade across the Project includes data from both the detailed ALC surveys and the ALC predictive mapping. Across the Order Limits, a total of 3,755 ha, 82.3% of the land is BMV land in Grades 1, 2, and 3a.

6.5.16 Table 6.10 details the extent of each ALC grade, based on detailed ALC surveys undertaken within the Order Limits and ALC predictive mapping. Full details of the ALC survey results are presented in Appendix 6.1: Agricultural Land Classification Report (document reference 6.6.A1).

Table 6.10 ALC grade across the Project (area of land is presented in hectares (ha) and as a percentage (%), BMV land (Grades 1, 2 and 3a) are highlighted)

| Area | Project Section(s) | Grade 1 | Grade 2 | Grade 3a | *Total Extent of Grades 1, 2 and 3a (BMV)* | Grade 3b | Grade 4 | Grade 5 | Non-agricultural |
|---|---|---|---|---|---|---|---|---|---|
| South Norfolk District | A | - | 91.5 (19%) | 256.8 (53%) | 348.3 (72%) | 125.2 (26%) | - | - | 7.8 (2%) |
| Mid Suffolk District | B | - | 214.1 (26%) | 473.9 (59%) | 688.0 (85%) | 105.8 (13%) | - | - | 17.3 (2%) |
| Babergh District, Colchester District and Tendring District | C | 3.7 (0.5%) | 404.0 (53%) | 281.9 (37%) | 689.6 (90%) | 63.4 (8%) | 8.7 (1.5%) | - | - |
| Colchester District | D | - | 66.0 (20%) | 254.6 (76%) | 320.6 (96%) | 15.4 (4%) | - | - | - |
| Braintree District | E | - | 1.7 (1%) | 275.8 (96%) | 277.5 (97%) | 8.8 (3%) | - | - | - |
| Chelmsford District | F | - | 100.6 (26%) | 249.2 (64%) | 349.8 (90%) | 42.3 (10%) | - | - | - |
| Chelmsford District, Brentwood District, | G | 6.6 (2%) | 10.2 (4%) | 62.9 (23%) | 79.7 (29%) | 177.6 (65%) | - | - | 16.5 (6%) |

| Area | Project Section(s) | Grade 1 | Grade 2 | Grade 3a | *Total Extent of Grades 1, 2 and 3a (BMV)* | Grade 3b | Grade 4 | Grade 5 | Non-agricultural |
|---|---|---|---|---|---|---|---|---|---|
| Basildon District | | | | | | | | | |
| Basildon District and Thurrock | H | - | 169.8 (41%) | 171.9 (42%) | 341.7 (83%) | 22.0 (5%) | - | - | 49.2 (12%) |
| **TOTAL** | | **10.3 (0.25%)** | **1,058.0 (28%)** | **2,026.9 (54%)** | **3,095.2 (82.25%)** | **560.4 (15%)** | **8.7 (0.25%)** | **-** | **90.6 (2.5%)** |

### Agricultural Landholdings

6.5.17 Detailed aerial photography and OS mapping shows that the agricultural land use across the Order Limits appears to be predominantly arable land, with some areas of pasture land, woodland, and land under use for horticulture, nurseries, golf courses and solar farms.

6.5.18 The land use classification for each land parcel with the Order Limits is provided in Appendix 6.2: Agricultural Landholding Information (document reference 6.6.A2). The land use classifications have been assessed through the use of aerial photography and OS mapping, the CORINE Land Cover inventory for 2018 (European Union's Copernicus Land Monitoring Service information, 2018), alongside available desktop information and engagement with landowners as part of the wider Project engagement activities.

6.5.19 The CORINE Land Cover inventory for 2018 (European Union's Copernicus Land Monitoring Service information, 2018) land use definitions, as applicable to the land uses identified within the Order Limits of the Project, are described as follows:

- Discontinuous urban fabric: Most of the land is covered by structures. Buildings, roads and artificially surfaced areas associated with vegetated areas and bare soil, which occupy discontinuous but significant surfaces
- Industrial or commercial units: Artificially surfaced areas (with concrete, asphalt, tarmacadam, or stabilised, e.g. beaten earth) devoid of vegetation, occupy most of the area in question, which also contains buildings and/or vegetated areas
- Mineral extraction sites: Areas with open-pit extraction of industrial minerals (sandpits, quarries) or other minerals (opencast mines). Includes flooded gravel pits, except for river-bed extraction
- Construction sites: Spaces under construction development, soil or bedrock excavations, earthworks
- Sport and leisure facilities: Camping grounds, sports grounds, leisure parks, golf courses, racecourses, etc. Includes formal parks not surrounded by urban zones
- Non-irrigated arable land: Cereals, legumes, fodder crops, root crops and fallow land. Includes flower and tree (nurseries) cultivation and vegetables, whether open field, under plastic or glass (includes market gardening). Includes aromatic, medicinal and culinary plants. Excludes permanent pastures
- Pastures: Dense, predominantly graminoid grass cover, of floral composition, not under a rotation system. Mainly used for grazing, but the fodder may be harvested mechanically. Includes areas with hedges (bocage)
- Land principally occupied by agriculture, with significant areas of natural vegetation: Areas principally occupied by agriculture, interspersed with significant natural areas
- Broad-leaved forest: Vegetation formation composed principally of trees, including shrub and bush understories, where broad-leaved species predominate
- Mixed forest: Vegetation formation composed principally of trees, including shrub and bush understories, where broad-leaved and coniferous species co-dominate

- Moors and heathland: Vegetation with low and closed cover, dominated by bushes, shrubs and herbaceous plants (heath, briars, broom, gorse, laburnum, etc.)
- Water bodies: Natural or artificial stretches of water.

6.5.20 The agricultural landholding assessment confirmed that within the Order Limits, the majority of the land parcels are arable, comprising approximately 74% of the total number of parcels. Pasture accounts for 18% of the parcels, while the remainder consists of a range of land uses. Broad-leaved and mixed forests, areas with significant natural vegetation, and moors and heathland (present to the south-west of the Waveney Valley) account for approximately 2% of the total number of parcels. Additionally, around 6% of the land parcels are classified as non-agricultural, with discontinuous urban fabric making up 3% and other non-agricultural land uses – including construction sites, industrial/commercial units, mineral extraction sites, sports and leisure facilities, and water bodies – accounting for the remaining 3%.

6.5.21 There are areas of land within the Study Area under Countryside Stewardship agreements (Middle and Higher Tier[2]), and areas of land to the south of Great Tey (Section D) and Edney Common (Section F) designated as being under both entry level plus higher-level stewardship, as well as organic entry level plus higher-level stewardship agreements. This is shown on Figure 6.4: Agri-environmental Schemes (document reference 6.6.F4). Multiple small areas of land across the whole Study Area are also noted as being under Woodland Grant Schemes[3], as shown on Figure 6.5: Forestry and Woodland Grant Schemes (document reference 6.6.F5).

## Future Baseline

6.5.22 The future baseline relates to known or anticipated changes to the current baseline in the future which should be assessed as part of the Project in the ES (Volume 6 of the DCO application).

6.5.23 It is considered that the baseline in relation to soils and ALC grades would not change from that described within the timeframe for the construction of the Project. While there may be potential natural changes to the future baseline in relation to climate change, including greater rainfall intensity and frequency of droughts, that could affect soil conditions, land grade, and farming practices, it is likely that these would only be visible over longer time frames, occurring after the Project is operational. Given the extended timeframe required for such changes to manifest (and for landowners to change practices as a result), the nature, extent and timeframe of any potential effects are impossible to predict with certainty at this stage.

6.5.24 There could potentially be changes to land management practices and business approaches across the landowners/land managers over the construction and operation (and maintenance) of the Project. These changes may arise from evolving agricultural techniques, economic factors, or policy shifts. Such management

[2] Higher Tier agreements are for multi-year options and capital items for the most environmentally important sites, including commons and woodlands. These are usually in places that need complex management, such as creating or restoring habitats and improving woodland. Middle Tier agreements aim to protect and enhance the natural environment through multi-year management grants and capital grants to improve diversity of wildlife, water quality, air quality and natural flood management.

[3] Woodland Grant Schemes (WGS) comprise grants and other incentives for woodland creation, maintenance, management and tree health. WGS 1, 2 and 3 were time based, with WGS1 being replaced by WGS2, etc.

adaptions are not expected to alter ALC grades, or the soil resources present unless major disturbances to the land are anticipated.

## 6.6 Proposed Mitigation

6.6.1 The approach to mitigation including a description of the mitigation hierarchy is set out in Chapter 5: EIA Approach and Method (document reference 6.5). Three types of mitigation have been incorporated into the Project and assessment: embedded, standard and additional environmental mitigation.

### Embedded Mitigation

6.6.2 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features, as far as reasonably practicable.

6.6.3 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project.

6.6.4 Embedded measures are those that are intrinsic to and built into the design of the Project, which are presented in Table 4.2 in Chapter 4: Project Description (document reference 6.4). Those relevant to Agriculture and Soils include:

- The design would allow for landscape planting at CSE compounds, the new EACN Substation, around the new Tilbury North Substation and at the existing Norwich Main Substation – Mitigation areas for landscape planting at permanent features are labelled 'Environmental Areas' and are shown on Figure 4.1: Proposed Project Design (document reference 6.4.F1) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2). Landscape planting would reduce effects – further details are provided in the Outline Landscape and Ecological Management Plan (LEMP) (document reference 7.4)
- Replacement planting – Replacement planting would be undertaken at the earliest opportunity given the right planting season.

### Standard Mitigation

6.6.5 Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.

6.6.6 The Outline CoCP (document reference 7.2) contains relevant standard/good practice measures relating to Agriculture and Soils. Note that measures have been assigned references, for example (GG01). For ease of cross-reference, these align with the references provided in Table 6.1 of the Outline CoCP (document reference 7.2). These measures include but are not limited to:

- GG03: The final version of the CoCP will be submitted for approval in accordance with Requirement 4 (construction management plans) of the draft DCO (document reference 3.1) prior to commencement of development and will reflect the Main Works Contractor(s) final construction methodologies
- GG06: A record of condition will be carried out (photographic and descriptive) of the land that may be affected by the construction activities, including trees and

hedgerows. This record will be available for comparison following reinstatement after the works have been completed to ensure that the standard of reinstatement at least meets that recorded in the pre-condition survey

- GG07: Land used temporarily will be reinstated where practicable to its pre-construction condition and use (or a condition discussed with the landowner), in line with the Outline LEMP (document refence 7.4). Hedgerows, fences, and walls (including associated earthworks and boundary features) will be reinstated to a similar variety to those that were removed, in discussion with the landowner and to the satisfaction of National Grid
- GG10: The Project will be constructed in compliance with the required Environmental Control Plans (ECPs). Those which are relevant to this chapter which are anticipated to be required, at this stage include an Outline LEMP and Outline Soil Resource Plan (including but not limited to details of soil resources present, soil management and storage, and measures for soil restoration) (details of the contents of this plan are included within the Outline CoCP)
- GG15: The Main Works Contractor(s) will undertake pre-construction condition surveys as part of the site setup. This will include making a record of the condition of existing features such as tracks and roads. Post-construction site condition surveys will be undertaken by the Main Works Contractor(s) after construction and the results of these will be discussed with the landowner prior to handover
- GG24: Earthwork mounds and stockpiled soil will be protected in line with the Outline SRP (as shown in Appendix C) (to avoid dust generation) by covering, seeding, or using water suppression where appropriate (to be determined by the soil type and the likely storage duration)
- GG28: Where necessary, temporary appropriate technology / material will be installed in areas where heavy equipment, such as cranes and piling rigs, are to be used to provide stable working areas and reduce disturbance to the ground by spreading loads and reducing soil compaction. This will be required for overhead line construction and would be temporary
- GG29: Working areas will be appropriately fenced. The type of fencing installed will depend on the area to be fenced and will take into consideration the level of security required in relation to the surrounding land and public access, rural or urban environment and arable or stock farming. For some locations the fence used may also serve to provide acoustic and visual screening of the work sites and reduce the potential for disturbance of users in the surrounding areas. Fencing will be regularly inspected and maintained and removed as part of the demobilisation unless otherwise specified
- GG31: Stockpiles, material storage, vehicle tracking, and soil bunds will be located away from trees and hedgerows, where practical, to ensure no damage occurs to these features and works remain outside of the root protection zone of the features. Works that cannot be undertaken without entering into a root protection zone will be addressed in a bespoke way (within an Arboricultural Method Statement (AMS)) to ensure all appropriate measures are in place to protect the area (unless otherwise agreed with the relevant LPA)
- AS01: Soil management measures are detailed in an Outline Soil Resource Plan (see Appendix C). Measures will include but not be limited to the following:
  - Details of the soil resources present

  - How topsoil and subsoil will be stripped and stockpiled based on their specific characteristics
  - Suitable conditions for when handling soil will be undertaken and climatic STOP conditions
  - Principles to determine suitable soil storage locations
  - How soil stockpiles will be designed taking into consideration site conditions and the nature/composition of the soil
  - Specific measures for managing sensitive soils
  - Suitable protective surfacing where soil stripping can be avoided, based on sensitivity of the environment and proposed works
  - Approach to reinstating soil that has been compacted, where required
  - Details of measures required for soil restoration
- AS02: Land required temporarily for construction will be returned to its former agricultural use / condition or a use / condition as discussed with the landowner, where practicable. Any agreements to restore land to a condition as discussed with the landowner will be fully recorded
- AS03: Where practicable and safe to do so, existing access to and from residential, commercial, community and agricultural land uses will be maintained throughout the construction period or as agreed through the landowner discussions. This may require signed diversions or temporary restrictions to access. The means of access to affected properties, facilities and land parcels will be communicated to affected parties at the start of the Project / at the start of the relevant sections, with any changes communicated in advance of the change being implemented. Where field-to-field access points require alteration because of construction, alternative field access will be provided in consultation with the landowner/occupier
- AS04: Existing water supplies for livestock that have been notified to the Project by the landowner before construction commences will be maintained or alternatives put in place in advance of any disturbance. Where supplies will be lost or access compromised by construction works, temporary alternative supplies will be provided where necessary. Water supplies will be reinstated following construction, where practicable
- AS05: Engagement with affected landowners will be carried out to investigate the current extent of land drainage. A scheme of pre-construction land drainage will be designed with the intent of maintaining the efficiency of the existing known land drainage system and to assist in maintaining the integrity of the working area during construction. The Project may include a system of ‘cut-off’ drains which feed into a new header drain and the Project will also consider surface water runoff measures. The Main Works Contractor(s) will ensure any land drains within the Order Limits, affected as a result of the Project, will be reinstated to their former condition, where agreed with the landowner. Any installed pre-construction land drainage to replace existing land drains affected by permanent infrastructure, as well as any drainage improvements resulting from the Project, would be retained. Those outside the Order Limits will be the responsibility of the landowner

- AS06: Should animal bones be discovered during construction, which may indicate a potential burial site (relating to mass graves of cloven-hooved animals or birds as result of disease/disease spread prevention), works will cease in isolated areas, and advice will be sought from the Animal Health Regional Office on how to proceed, relevant to the origin and age of the materials found
- AS07: In the event of a notification by Defra of a disease outbreak in the vicinity of the site that requires the cessation of activities, all movement of plant and vehicles between fields will cease. Advice will be sought from Defra to develop suitable working methods required to reduce the biosecurity risk associated with the continuation of works
- AS08: Where deemed necessary, clay bunds or other vertical barriers will be constructed within trench excavations by a suitably experienced person, to prevent the creation of preferential drainage pathways
- AS09: Appropriate technology / material will be installed in areas where heavy equipment, such as cranes and piling rigs, are to be used, as outlined in GG28 to provide stable working areas and reduce disturbance to the ground. Typically the area will be stripped of the topsoil (and subsoil where required), which will be stored and reinstated (following removal) in accordance with the soil management measures contained in the Outline Soil Resource Plan (Appendix C of the Outline CoCP (document reference 7.2)).

6.6.7 The temporary nature of many construction activities associated with the Project and the subsequent restoration of the land is likely to result in the avoidance of long-term effects on agricultural and soil receptors.

6.6.8 The Outline CoCP (document reference 7.2) secured by Requirement 4 in the draft DCO (document reference 3.1) requires the Main Works Contractor(s) to prepare the CoCP to discharge the Requirement.

6.6.9 The Outline CoCP also includes an Outline SRP, which would need to be updated by the Main Works Contractor(s) prior to commencement of construction. The Outline SRP provides a strategy, guidance, and methodology, and provides details of the approach to soil stripping, stockpiling, and reuse (where appropriate). The Outline SRP also considers temporary and permanent design, detailed construction approaches and Project programme. The SRP would aim to minimise the potential risk of damage to soil quality and reduced agricultural land grade. Further soil reinstatement details are also provided in the Outline LEMP (document reference 7.4).

## Additional Mitigation

6.6.10 Additional mitigation comprises measures over and above any embedded and standard mitigation measures, for which this Agriculture and Soils assessment has identified a requirement to further reduce significant environmental effects, although in many cases, the significance is still considered major.

6.6.11 Additional mitigation measures are to be put in place where the Project interacts with organic-rich (peaty) soils identified in the Waveney Valley. The Outline SRP within the Outline CoCP (document reference 7.2) provides guidance and mitigation on the handling of these soils.

6.6.12 Additional mitigation measures to maintain or improve the stability of organic-rich (peaty) soils where construction activities, including access tracks, are required on

top of these organic-rich soils include (but are not limited to) the following, as set out in the Outline SRP within the Outline CoCP (document reference 7.2):

- Identify and maintain (not enhance) all existing drainage features within the access track corridors
- Install ditches with small dams and cross drains at regular intervals to allow groundwater flow below the tracks and to avoid high velocity concentrated discharge to peaty soils on the down slope side of the tracks, which could lead to deep soil erosion
- Install additional drainage up-slope to access tracks to prevent ponding and organic-rich soil instability
- Where organic-rich (peaty) soils are to be re-used or reinstated (if required), good practice soil handling measures are to be followed for storage, transport and excavation.

## 6.7 Residual Effects

6.7.1 The likely significant effects of the Project have been assessed using current available data relating to both the construction and operation (and maintenance) phases of the Project. The residual effects are outlined below. As previously stated, this section assumes that all mitigation measures – embedded (design measures), standard practice, and any additional mitigation - are in place before assessing the effects. This is in accordance with guidance from IEMA as part of preparing a proportional assessment (IEMA, 2024).

### Construction

#### Soils

6.7.2 There would be disturbance to soils from the construction of temporary access and haul roads, temporary construction compounds, and construction laydown areas. Soil stripping would be required for the working areas related to pylon construction, underground cabling (including underground cable trenches, undergrounding of existing National Grid pylons, and undergrounding of third-party services), and CSE compounds. Additionally, soil stripping would be required for the foundations of pylons, permanent substation sites, the substation extension, and CSE compounds.

6.7.3 The impacts on soils have the potential to occur on land within the Order Limits, adversely affecting the ecosystem services the soils provide over an area of up to approximately 3,755 ha. This could include, for example, soil compaction due to the movement of plant across the soil surface or poor restoration of disturbed soils resulting in mixing of the soil horizons and compaction. This could reduce the infiltration rate of rainfall and result in an increase in surface runoff and consequent erosion and flood risk.

6.7.4 In accordance with good practice measure AS02 in the Outline CoCP (document reference 7.2), land required temporarily for construction would be reinstated where practicable to its pre-construction agricultural use or condition (or as agreed with the landowner). This would include removing all infrastructure required during construction, such as compound areas and temporary access and haul roads. In addition, soil resources stripped from the footprints of permanent infrastructure, such

as for pylon foundations, substation sites, substation extensions and CSE compounds, would be reused as part of landscaping proposals within the Order Limits where practicable. It is assumed that all soil could be reused on site, however if it arises that excess spoil cannot be reused on site, this soil would be taken off site. The Outline SRP included within the Outline CoCP (document reference 7.2) contains good practice measures for soil handling, storage, and reinstatement, which would reduce the detrimental effects on soil function, and would mean that the reinstated soils are able to provide their associated ecosystem services. There will be a requirement for an aftercare period where soils are being reinstated to ensure they are returned to their previous condition, or the condition required for their end-use.

6.7.5 Given the scale of the Project and construction activity required there would be a **temporary large** magnitude impact on **very high / high and medium** sensitivity soils (in terms of soil function and associated ecosystem services), which is assessed as a **major adverse effect,** which is **significant**, as shown in Table 6.11.

6.7.6 No potentially acid sulphate soils were identified within the Waveney Valley, only organic-rich (peaty) soils. The soil textures across the Order Limits are predominantly clays, medium or heavy clay loams, and sandy loams with Field Capacity Days between 100 and 134. Based on the soil assessment criteria in Section 6.4, the Project would result in a **temporary major adverse** effect on the soil structure of medium to heavy soils, such as clay loams and clay. Whereas, for light soils, including sand, loamy sands, and sandy loams, the Project would result in a **temporary moderate adverse effect.** These effects are detailed in Table 6.11.

Table 6.11 Assessment of impact on soils during construction

| Soils | | Receptor Sensitivity | Magnitude of Impact | Significance of Effect |
|---|---|---|---|---|
| Soil resource and function | Soil function and soil volume | Very High/High | Large | **Major** |
| Soil handling (structural damage) | Medium or heavy clay loams, clay, and peaty soils from topsoil and subsoil | Medium/High | Large | **Major** |
| | Sands, loamy sands, sandy loams and sandy silt loams | Low | Large | **Moderate** |

### Agricultural Land

6.7.7 During construction there would be a temporary loss of BMV land (ALC Grades 1, 2 and 3a) from agricultural productivity. It is calculated that 3,461 ha of agricultural land would be temporarily removed from agricultural production during construction. Of this, 2,923 ha (84.4%) are mapped as Grades 1, 2 and 3a and, as such, the

temporary removal is considered to have a **temporary negative effect** which would be of **major significance**, as shown in Table 6.12.

Table 6.12 Assessment of impact on agricultural land during construction

| Soils | Area Required Temporarily (ha) | Percentage of Agricultural Land | Receptor Sensitivity | Magnitude of Impact | Significance of Effect |
|---|---|---|---|---|---|
| Grades 1 and 2 (BMV land) | 1,001.9 | 28.9% | Very High | Large | **Major** |
| Grade 3a (BMV land) | 1,920.8 | 55.5% | High | Large | **Major** |
| Grade 3b (non-BMV land) | 530.0 | 15.3% | Medium | Large | **Major** |
| Grade 4 (non-BMV land) | 8.7 | 0.3% | Low | Medium | **Minor** |

### Agricultural Landholdings

6.7.8 In areas of proposed permanent land-take, including the CSE compounds, the EACN Substation, Tilbury North Substation and the substation extension at Bramford Substation, the land use is arable. The permanent land-take associated with pylon foundations has been rationalised through Project design, with pylons positioned as close as possible to field boundaries (where practicable) to minimise effects on agricultural operations.

6.7.9 During construction, agricultural operations may experience disruption due to factors such as disturbance (in particular where livestock are present), fragmentation of land, access restrictions, or disruptions to water supplies and drainage. To mitigate these effects, good practice measures AS03, AS04, and AS05 outlined in the Outline CoCP (document reference 7.2) would ensure that access to affected land parcels is maintained or alternative access arrangements are communicated to landowners and occupiers. Water supplies for livestock would be maintained or alternatives provided, and reinstatement carried out following construction where practicable. Additionally, the Main Works Contractor(s) would ensure any land drains affected by the Project within the Order Limits would be reinstated.

6.7.10 By the end of construction, all land required temporarily would be reinstated, and effects on agricultural operations during the construction phase would be managed through compensation agreements (which lie outside of the EIA process). The implementation of good practice measures would ensure that disruption is minimised, and combined with reinstatement and compensation agreements, it is therefore considered that the effects on agricultural landholdings would result in a **neutral effect** and would be **not significant.**

## Operation (and Maintenance)

6.7.11 This section identifies the anticipated effects of the Project following the implementation of embedded, standard and additional mitigation measures for operation (and maintenance).

### Soils

6.7.12 The assessment of effects on soils during operation (and maintenance) was scoped out, in accordance with the EIA Scoping Opinion (document reference 6.20), as site-won soils would be reused on site for landscaping and ecological habitats[4]. Any maintenance or repair works required which would result in disturbance to soils would be undertaken in accordance with good practice methods, as detailed in the Outline SRP (see Appendix C of the Outline CoCP (document reference 7.2)).

### Agricultural Land

6.7.13 During operation (and maintenance), there would be a permanent loss of areas of agricultural land required for permanent infrastructure. Table 6.13 details the total extent of land at each grade required for the permanent footprint of the foundations of the pylons, substations, CSE compounds and any permanent access routes.

[4] Soil materials that are excavated and reused on the same construction site where they were originally found.

Table 6.13 ALC grade affected by permanent design features (area of land is presented in hectares (ha) and as a percentage (%), BMV land (Grades 1, 2 and 3a) are highlighted)

| **Permanent Land-Take (Infrastructure, Soil Removed)** | **Grade 1** | **Grade 2** | **Grade 3a** | ***Total Extent of Grade 1, 2 and 3a (BMV)*** | **Grade 3b** | **Grade 4** | **Grade 5** | **Non-agricultural** |
|---|---|---|---|---|---|---|---|---|
| Pylon foundations | - | 1.3 (23.6%) | 3.2 (58.2%) | 4.5 (81.8%) | 0.9 (16.4%) | - | - | 0.1 (1.8%) |
| Substations *(proposed EACN and Tilbury North Substations and modifications to existing substations)* | - | 19.7 (44.5%) | 1.2 (2.7%) | 21.0 (47.4%) | 4.7 (10.6%) | - | - | 18.7 (42.2%) |
| CSE compounds | - | 6.3 (53.8%) | 5.4 (46.2%) | 11.7 (100%) | - | - | - | - |
| Permanent access routes[5] | 0.3 (0.2%) | 38.8 (22.4%) | 96.3 (55.7%) | 135.5 (78.4%) | 24.8 (14.3%) | - | - | 12.7 (7.3%) |
| **TOTAL** | **0.3 (0.1%)** | **66.1 (28.2%)** | **106.1 (45.3%)** | **172.7 (73.7%)** | **30.4 (13%)** | **-** | **-** | **31.5 (13.4%)** |

[5] Where physical works are required.

6.7.14 As indicated by Table 6.13 approximately 172.7 ha of Grade 1, Grade 2 and Grade 3a agricultural land (i.e., BMV land) would be taken out of agricultural production permanently, which would constitute an irreversible loss of one or more soil functions (in particular the impact on BMV land). Due to the **high sensitivity** of BMV land, the impact on agricultural land is assessed as a **major adverse effect**, which is **significant**, as shown in Table 6.14.

Table 6.14 Assessment of impact on agricultural land during operation (and maintenance)

| Soils | Area Required (ha) | Percentage of Agricultural Land | Receptor Sensitivity | Magnitude of Impact | Significance of Effect |
|---|---|---|---|---|---|
| Grades 1 and 2 (BMV land) | 66.4 | 32.7% | Very High | Large | **Major** |
| Grade 3a (BMV land) | 106.1 | 52.3% | High | Large | **Major** |
| Grade 3b (non-BMV land) | 30.4 | 15.0% | Medium | Large | **Major** |

6.7.15 Any maintenance or repair works required during operation (and maintenance) on agricultural land which would result in disturbance are considered likely to be temporary and small-scale in nature and would be undertaken in accordance with good practice methods, resulting in **minor / negligible effects** which would be **not significant**.

### Agricultural Landholdings

6.7.16 During operation (and maintenance), there would be limited effects on agricultural operations. There is the potential for restrictions to existing activities immediately over or adjacent to buried cables or under overhead lines; however, these would be dealt with through compensation agreements (which lie outside of the EIA process). Any maintenance or repair works required which would result in disturbance to agricultural operations would be undertaken in accordance with standard practice. Therefore, **no significant effects** on agricultural landholdings during operation (and maintenance) are anticipated and this aspect is scoped out of the ES (Volume 6 of the DCO application), in accordance with the EIA Scoping Opinion (document reference 6.20).

## 6.8 Monitoring

6.8.1 The identified effects on agricultural land, soils and agricultural landholdings in Section 6.7 would be monitored throughout the stages of the design and construction to avoid and minimise additional new effects by Main Works Contractor(s).

6.8.2 The monitoring of the effects on agricultural land would focus on the areas of land-take and the condition of the land returned following construction.

6.8.3 The monitoring of the effects on agricultural landholdings would focus on severance and disruption on farm activities.

6.8.4 The significant effects of the Project on soil quality and the associated ecosystem services should be monitored as follows:

- All soil handling activities during construction should be undertaken under the supervision of a qualified soil scientist or suitably trained supervisor in line with the requirements of the Roles and Responsibilities that would be detailed in the updated pre-construction SRP
- The Site Manager or delegate should periodically monitor and inspect the soil handling and soils across the Project ensuring soil mitigation measures in the Outline SRP are applied
- Monitoring should be continued for soil aftercare post construction for a few years to ensure soils regain their functions and health to support crop growth. The soil aftercare period would be agreed on and set up post-consent and pre-construction with Main Works Contractor(s).

## 6.9 Sensitivity Testing

6.9.1 Sensitivity testing has been undertaken as described in Chapter 5: EIA Approach and Method (document reference 6.5) to determine if delays or an extension to the construction programme, changes to the design within the Limits of Deviation (LoD) or if any of the design scenarios presented in Table 4.4 in Chapter 4: Project Description (document reference 6.4) would affect the assessment.

### Flexibility in Construction Programme

6.9.2 This chapter assumes the baseline construction schedule described in Chapter 4: Project Description (document reference 6.4) for the purposes of the assessment. Sensitivity testing considering an alternative construction schedule, which has a later start date due to the construction programme being delayed, has shown that there would be no new or different likely significant effects on soils, agricultural land, or agricultural landholdings to those identified in the baseline construction schedule assessed in Section 6.7 of this chapter.

6.9.3 If the construction period of the Project is delayed, there may be increased impacts on agricultural landholdings due to extended periods of disruption to normal farming operations. Prolonged access restrictions may affect farming activities such as planting, harvesting, or grazing schedules. Additionally, where temporary land-take is required, extended occupation of agricultural land could result in delayed reinstatement, limiting the productive use of land during this period.

6.9.4 However, mitigation measures outlined in the Outline CoCP (document reference 7.2) are designed to minimise these impacts, even in the event of an extended construction schedule. These measures include maintaining access, consulting with landowners, and ensuring the reinstatement of land temporarily affected by the Project. Therefore, considering an extended construction schedule, a delay in the construction period of the Project would **not result in any new or different likely significant effects** on agricultural landholdings compared to those identified in the baseline construction schedule assessed in Section 6.7 of this chapter.

## Flexibility in Design

### Flexibility within the Limits of Deviation

6.9.5 The assessment presented within this chapter has been undertaken on the design as shown on Figure 4.1: Proposed Project Design (document reference 6.4.F1) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2). It should be noted that as described in Chapter 4: Project Description (document reference 6.4), the Project's design is not fixed and could be subject to change within the defined LoD within the parameters shown on the Works Plans (document reference 2.3) unless commitments have been made otherwise.

6.9.6 It is likely that the overall extent of land required and soils disturbed would remain approximately the same under alternative alignments and where there are changes to the location or height of permanent features, such as pylons. In addition, the operations required would be unlikely to differ as a result from those assessed in this chapter. As such, this sensitivity testing has shown that there would be **no new or different likely significant effects** on soils or agricultural land as a result of Project infrastructure being placed in a different location.

6.9.7 Changes to the location or height of permanent features, such as pylons, may adversely affect agricultural landholdings. For example, alterations to the placement of pylons may impact agricultural operations, such as grazing, planting, or harvesting activities. Farm access routes may also be affected if new pylon locations interfere with established access points or require adjustments to field-to-field connectivity. However, these changes would not result in any new or different likely significant effects on agricultural landholdings from those assessed in Section 6.7 of this chapter. Mitigation measures outlined in the Outline CoCP (document reference 7.2) would be applied, including consultation with landowners, maintaining or providing alternative field access, and ensuring land required temporarily for construction would be returned to its former agricultural use / condition, where practicable. These measures would minimise the adverse effects on agricultural landholdings as a result of Project infrastructure being placed in a different location.

6.9.8 Soil Resource Surveys would be undertaken post-consent and pre-construction in areas not covered by the detailed ALC surveys. The Soil Resource Surveys would also account for any design changes to inform the updated pre-construction SRP. The SRP would take account of, for example, detailed construction approaches and Project programme, with more site-specific soil measures.

### Flexibility within the Order Limits

6.9.9 There are 19 locations where design scenarios have been identified within Chapter 4: Project Description (document reference 6.4). However, none of these design scenarios would result in different effects on Agriculture and Soils compared to those reported in this chapter. The effects on agricultural land and soils would remain **significant**.

# Abbreviations

| Abbreviation | Full Reference |
|---|---|
| ALC | Agricultural Land Classification |
| AONB | Area of Outstanding Natural Beauty |
| BGS | British Geological Survey |
| BNG | Biodiversity Net Gain |
| BMV | Best and Most Versatile |
| CoCP | Code of Construction Practice |
| CSE | Cable Sealing End (compound) |
| DCO | Development Consent Order |
| Defra | Department for Environment, Food and Rural Affairs |
| DESNZ | Department for Energy Security and Net Zero |
| DMRB | Design Manual for Roads and Bridges |
| EACN | East Anglia Connection Node |
| ECP | Environmental Control Plan |
| EIA | Environmental Impact Assessment |
| EIA Regulations | Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 |
| EMF | Electric and Magnetic Field |
| ES | Environmental Statement |
| FCDs | Field Capacity Days |
| Ha | Hectares |
| IEMA | Institute of Environmental Management and Assessment |
| LEMP | Landscape and Ecological Management Plan |
| LGS | Local Geological Site |
| LNR | Local Nature Reserve |
| LPA | Local Planning Authority |
| LoD | Limits of Deviation |
| MAFF | Ministry of Agriculture, Fisheries and Food |
| MAGIC | Multi-Agency Geographic Information for the Countryside |

| Abbreviation | Full Reference |
|---|---|
| NCA | National Character Area |
| NPS | National Policy Statement |
| OS | Ordnance Survey |
| The Project | Norwich to Tilbury |
| RIGS | Regionally Important Geological Site |
| SAC | Special Area of Conservation |
| SLA | Special Landscape Area |
| SNCI | Site of Nature Conservation Importance |
| SPA | Special Protection Area |
| SRP | Soil Resource Plan |
| SSSI | Site of Special Scientific Interest |
| UKBAP | United Kingdom Biodiversity Action Plan |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| WC | Wetness class |

# Glossary

| Term | Definition |
|---|---|
| Agricultural Land Classification (ALC) | The system of grading land quality for land use planning purposes. This divides farmland into five grades according to the degree of limitation imposed upon land use by the inherent physical characteristics of climate, site, and soils. Grade 1 land is of an excellent quality, whilst Grade 5 land has very severe limitations for agricultural use. Grade 3 is subdivided into subgrades 3a and 3b. |
| Agri-environment scheme | Government programme set up to provide funding to enable farmers/land managers to farm in a way that supports biodiversity, enhances the landscape and improves the quality of water, air and soil. |
| Best and Most Versatile (BMV) land | Grades 1, 2 and subgrade 3a under the Agricultural Land Classification system. |
| British Geological Survey (BGS) | A public sector organisation responsible for advising the UK government on all aspects of geoscience as well as providing impartial geological advice to industry, academia and the public. |
| Cable Sealing End (CSE) | Structures used to transfer transmission circuits between underground cables and overhead lines. |
| Cable Sealing End (CSE) compound | Electrical infrastructure used as the transition point between overhead lines and underground cables. A compound on the ground acts as the principal transition point. |
| Code of Construction Practice (CoCP) | A code of construction practice sets out the standards and procedures to which a developer (and its contractors) must adhere in order to manage the potential impacts of construction works. |
| Embedded mitigation | Measures for the protection of the environment that are embedded (intrinsic) within the design. |
| Environmental Areas | These are locations identified for environmental embedded measures, mitigation and/or Biodiversity Net Gain/environmental enhancement. |
| Environmental Impact Assessment (EIA) | An assessment of the likely effects of a development project on the environment, which is reported in an Environmental Statement that is publicised and consulted on and taken into account in the decision on whether a project should proceed. |
| Environmental Statement (ES) | The main output from the EIA process, an ES is the report required to accompany an application for development consent (under the Infrastructure Planning (EIA) Regulations 2017) to inform public and stakeholder consultation and the decision on whether a project should be allowed to proceed. The EIA Regulations set out specific requirements for the contents of an ES for Nationally Significant Infrastructure Projects. |
| Field Capacity Days (FCD) | This is a meteorological parameter which estimates the number of days when the soil moisture deficit is zero. |

| Term | Definition |
|---|---|
| Haul road | A route used by construction traffic within the Order Limits to access a working area from a site access point. |
| Land use | What land is used for, based on broad categories of functional land cover such as urban and industrial use and the different types of agricultural and forestry use. |
| Limits of Deviation (LoD) | LoD allow for adjustment to the final positioning of the permanent infrastructure for example to avoid localised constraints or unknown or unforeseeable issues that may arise. This could include, previously unidentified poor ground conditions may require a pylon to be moved slightly for geotechnical reasons, such as ground stability. The horizontal LoD define the parameters within which the position on the ground of proposed permanent infrastructure may deviate from the position shown on the plans. This applies to both linear (for example overhead line and underground cables) and non-linear (for example the EACN Substation and CSE compounds) proposed infrastructure. Vertical LoD limit the maximum vertical height, or the depth below ground, of any new infrastructure. |
| Magnitude of change | A term that combines judgements about the size and scale off the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration. |
| Mitigation | The action of reducing the severity and magnitude of change (impact) to the environment. Measures to avoid, reduce, remedy or compensate for significant adverse effects. |
| National Character Areas (NCAs) | NCAs divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries, making them a good decision making framework for the natural environment. |
| National Planning Policy Framework (NPPF) | The National Planning Policy Framework sets out the government's planning policies for England and how these should be applied. The Planning Practice Guidance to support the framework is published online and regularly updated. |
| Order Limits | The maximum extent of land within which the authorised development may take place. |
| Overhead line | Conductor (wire) carrying electric current, strung from pylon to pylon. |
| Project Section | Geographical 'sections' have been identified that break the project down into smaller units for ease of description within the documentation. |
| Pylons | Structures that support the overhead line (conductors). There are two types of pylons: suspension (line), where the conductors are simply suspended from the pylon, and tension (angle). |

| Term | Definition |
|---|---|
| Residual effects | The consequence of an 'impact' of construction and operation (including maintenance) of the proposed development after mitigation measures have been applied. |
| Scoping | Scoping is the process of determining the content and extent of matters that should be covered in the Environmental Impact Assessment. |
| Scoping Report | Report determining the content and extent of matters that should be covered in the Environmental Impact Assessment. |
| Sensitivity | A term applied to specific receptors, combining judgements of the susceptibility of the receptors to the specific type of change or development proposed and the value related to that receptor. |
| Significance | A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic. |
| Site-won soils | Refers to soil materials that are excavated and reused on the same construction site where they were originally found. |
| Soil association | Represents a group of soil series (soil types) which are typically found occurring together in the landscape. |
| Soil compaction | Degradation of soil structure, which can be caused by heavy loading, resulting in a breakdown of the soil structural units (peds) and a reduction in the voids within the soil. |
| Soil stockpiles | Mounds of soil created through the storage of soil materials which have been stripped from an area of construction. |
| Statutory consultation | The formal period of public consultation, prior to deciding a planning application. |
| Subsoil | Weathered soil layer extending between the natural topsoil and the unweathered basal layer (geological parent material, either solid or drift) below. |
| Substation | Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses. |
| Temporary construction area | The additional temporary construction space required to construct the Project in a particular area, but which will not be required once construction has taken place. |
| Temporary construction compounds | Temporary compounds installed during the construction phase of the Project. Each compound may contain storage areas including laydown areas, soils storage and areas for equipment and fuel, drainage, generators, car parking, and offices and welfare areas (portacabins). |
| Topsoil | The uppermost layer of soil, usually with the highest concentration of nutrients, organic matter and microorganisms. |

| Term | Definition |
| --- | --- |
| Trenchless crossing | A crossing installation method that has limited above ground disturbance which is used to avoid a sensitive feature such as an environmental feature. |
| Underground cabling | An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds. |
| Working area | Working area required to construct elements of the Project, such as pylons, underground cables, CSE compounds. |

# Bibliography


Babergh and Mid Suffolk District Council (2023) *Babergh and Mid Suffolk Joint Local Plan – Part 1.*

Braintree District Council (2022) *Braintree District Council Local Plan 2033*

Brentwood Borough Council (2022) *Brentwood Borough Council Local Plan 2016-2033*

British Geological Survey (2022) *BGS Geology Viewer* [online] Available at: [redacted] May 2025

British Standards Institution (2013) *BS 8601:2013 Specification for Subsoil and Requirements for Use*

British Standards Institution (2015) *BS 3882:2015 Specification for Topsoil*

Broadland District Council, South Norfolk Council, Norwich City Council and Norfolk County Council (2024) *Greater Norwich Local Plan*

Chelmsford City Council (2020) *Chelmsford Local Plan 2013-2036*

Defra (2009a) *Safeguarding our Soils: A Strategy for England*

Defra (2009b) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*

Defra (2023) *Environmental Improvement Plan 2023*

Defra (2024) *Multi-Agency Geographic Information for the Countryside (MAGIC)* [online] Available at: https://magic.defra.gov.uk/home.htm Accessed May 2025

Department for Energy Security and Net Zero (2024a) *Overarching National Policy Statement for Energy (EN-1)*

Department for Energy Security and Net Zero (2024b) *National Policy Statement for Electricity Networks Infrastructure (EN-5)*

European Union's Copernicus Land Monitoring Service information (2018) *CORINE Land Cover inventory for 2018* [redacted]

Hodge, C.A.H (1984) *Soils and their use in Eastern England*

Institute of Environmental Management and Assessment (IEMA) (2022) *A New Perspective on Land and Soil in Environmental Impact Assessment*

Institute of Quarrying (2021) *Good Practice Guide for Handling Soils in Mineral Workings*

Jarvis, M.G., et al., (1984) *Soils and their use in South East England*

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land*

Ministry of Agriculture, Fisheries and Food and ADAS (1983) *Land and Water Services Technical Note (TN/RP/01 TFS 846)*

Ministry of Housing, Communities and Local Government (2024) *National Planning Policy Framework and Accompanying Planning Practice Guidance*

Ministry of Housing, Communities and Local Government (2024) *Planning Policy Guidance* [online] Available at: https://www.gov.uk/government/collections/planning-practice-guidance Accessed May 2025

National Highways (2019) *Design Manual for Roads and Bridges (DMRB) LA 109 Geology and Soils*

National Highways (2020) *Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human Health*

Natural England (2012) *Technical Information Note 049. ALC Protecting the Best and Most Versatile Agricultural Land*

Natural England (2014a) *NCA Profile: 78 Central North Norfolk (NE526)*

Natural England (2014b) *NCA Profile: 79 North East Norfolk and Flegg (NE567)*

Natural England (2014c) *NCA Profile: 80 The Broads (NE449)*

Natural England (2014d) *NCA Profile: 83 South Norfolk and High Suffolk Claylands (NE544)*

Natural England (2014e) *NCA Profile: 86 South Suffolk and North Essex Clayland (NE515)*

Natural England (2014f) *NCA Profile: 111 Northern Thames Basin (NE466)*

Natural England (2017) *Likelihood of Best and Most Versatile (BMV) Agricultural Land – Strategic scale map Eastern Region (ALC020)*

Natural England (2021) *Guide to assessing development proposals on agricultural land*

South Norfolk Council (2015) *South Norfolk Council Development Management Policies Document*

Tendring District Council (2022) *Tendring District Local Plan 2013-2033 and Beyond: Section 2*

The British Society of Soil Science (2022) *Guidance Note: Working with Soil Guidance Note on Benefitting from Soil Management in Development and Construction*

Thurrock Council (2015) *Thurrock Council Core Strategy and Policies for Management of Development*

Welsh Government's (2017) *Predictive Agricultural Land Classification Map (Wales) Guidance Note Version 2.1 – May 2021*

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com