

# Outer Dowsing Offshore Wind

## Environmental Statement

### Chapter 25 Land Use

### Volume 1 Chapters

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## Table of Appendices (Volume 3)

- Chapter 25 has no appendices

## Acronyms & Terminology

### Acronyms

Abbreviation Acronym	Description
AIS	Air Insulated Switchgear
ALC	Agricultural Land Classification
AoS	Area of Search
BAEF	Boston Alternative Energy Facility
BEIS	Department for Business, Energy & Industrial Strategy (now the Department for Energy Security and Net Zero (DESNZ))
BMV	Best and Most Versatile
CBS	Cement Bound Sand
CEA	Cumulative Effects Assessment
CEMP	Construction Environment Management Plan
CoCP	Code of Construction Practice
CRoW	Countryside and Rights of Way Act
DAERA	Department of Agriculture, Environment and Rural Affairs
DC	Document Controller
DCO	Development Consent Order
DECC	Department of Energy & Climate Change, now the Department for Energy Security and Net Zero (DESNZ)
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero, formerly Department for Business, Energy and Industrial Strategy (BEIS), which was previously Department of Energy & Climate Change (DECC)
DMRB	Design Manual for Roads and Bridge
DS	Drainage Strategy
EAP	Early Adopters Programme
EC	European Commission
ECC	Export Cable Corridor (offshore ECC or indicative onshore ECC)
EDMS	Electronic Document Management System
EEA	European Economic Area
EIA	Environmental Impact Assessment
EN-1	Overarching National Policy Statement for Energy
EN-5	Overarching National Policy Statement for Electricity Networks Infrastructure
EPP	Evidence Plan Process
ES	Environmental Statement
ETG	Expert Topic Group
FEED	Front End Engineering Design
GI	Ground Investigation
GIS	Geographical Information System
GVA	Gross Value Added

Abbreviation Acronym	Description
HDD	Horizontal Directional Drilling
HM	His Majesty's
IDC	Inter-disciplinary check
IEMA	Institute of Environmental Management and Assessment
IFC	Issued for Construction
IFI	Issued for Information
IVB	Independent Verification Body
JB	Joint Bays
LCC	Lincolnshire County Council
LNR	Local Nature Reserves
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Sites
MAGIC	Multi-Agency Geographic Information for the Countryside
MCCA	Marine and Coastal Access Act 2009
MDR	Master Document Register
MDS	Maximum Design Scenario
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MW	Megawatt
NCN	National Cycle Network
NCR 1	National Cycle Route 1
NGSS	National Grid Substation
NIP	National Infrastructure Planning
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
ODOW	Outer Dowsing Offshore Wind (The Project)
OFTO	Offshore Transmission Owner
OnSS	Onshore Substation
OnSS PCC	OnSS Primary Construction Compound
OS	Ordnance Survey
OSS	Offshore Substation
PAMP	Public Access Management Plan
PCM	Project Controls Manager
PD	Project Director
PE	Project Engineer
PEIR	Preliminary Environmental Information Report
PLE	Project Planning Engineer
PMS	Project Management System
PMT	Project Management Team
PPEIRP	Pollution Prevention and Emergency Incident Response Plan
PPG	Planning Practice Guidance

Abbreviation Acronym	Description
PRoW	Public Right of Way
SCC	Secondary Construction Compound
SMP	Soil Management Plan
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
SuDS	Sustainable Urban Drainage Systems
TCE	The Crown Estate
TE	TotalEnergies
TJB	Transition Joint Bay
UK	United Kingdom
WBS	Work Breakdown Structure
WCH	Walkers, Cyclists, and Horse-Riders
WCS	Worst Case Scenario
WTG	Wind Turbine Generator



## Terminology

Term	Definition
400kV cables	High-voltage cables linking the OnSS to the NGSS.
400kV cable corridor	The 400kV cable corridor is the area within which the 400kV cables connecting the onshore substation to the NGSS will be situated.
The Applicant	GT R4 Ltd. The Applicant making the application for a DCO. The Applicant is GT R4 Limited (a joint venture between Corio Generation, TotalEnergies and Gulf Energy Development (GULF)), trading as Outer Dowsing Offshore Wind. The project is being developed by Corio Generation (a wholly owned Green Investment Group portfolio company), TotalEnergies and GULF.
Baseline	The status of the environment at the time of assessment without the development in place.
Connection Area	An indicative search area for the NGSS.
Cumulative effects	The combined effect of the Project acting additively with the effects of other developments, on the same single receptor/resource.
Cumulative impact	Impacts that result from changes caused by other past, present or reasonably foreseeable actions together with the Project.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP).
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of an impact with the sensitivity of a receptor, in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the Environmental Impact Assessment (EIA) Regulations, including the publication of an Environmental Statement (ES).
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
Environmental Statement (ES)	The suite of documents that detail the processes and results of the EIA.
Evidence Plan	A voluntary process of stakeholder consultation with appropriate Expert Topic Groups (ETGs) that discusses and where possible agrees the detailed approach to the Environmental Impact Assessment (EIA) and information to support Habitats Regulations Assessment (HRA) for those relevant topics included in the process, undertaken during the pre-application period.
Export cables	High voltage cables which transmit power from the Offshore Substations (OSS) to the Onshore Substation (OnSS) via an Offshore Reactive Compensation Platform (ORCP) if required, which may include one or more auxiliary cables (normally fibre optic cables).

Term	Definition
Haul Road	The track within the onshore ECC which the construction traffic would use to facilitate construction.
Impact	An impact to the receiving environment is defined as any change to its baseline condition, either adverse or beneficial.
Intertidal	The area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS)
Joint bays	An excavation formed with a buried concrete slab at sufficient depth to enable the jointing of high voltage power cables.
Landfall	The location at the land-sea interface where the offshore export cables and fibre optic cables will come ashore.
Link boxes	Underground metal chamber placed within a plastic and/or concrete pit where the metal sheaths between adjacent export cable sections are connected and earthed.
Maximum Design Scenario (MDS)	The project design parameters, or a combination of project design parameters that are likely to result in the greatest potential for change in relation to each impact assessed
Mitigation	Mitigation measures are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project design) or secondarily added to reduce impacts in the case of potentially significant effects.
National Policy Statement (NPS)	A document setting out national policy against which proposals for Nationally Significant Infrastructure Projects (NSIPs) will be assessed and decided upon.
Onshore Export Cable Corridor (ECC)	The Onshore Export Cable Corridor (Onshore ECC) is the area within which the export cable running from the landfall to the onshore substation will be situated.
Onshore Infrastructure	The combined name for all onshore infrastructure associated with the Project from landfall to grid connection.
Onshore substation (OnSS)	The Project's onshore HVAC substation, containing electrical equipment, control buildings, lightning protection masts, communications masts, access, fencing and other associated equipment, structures or buildings; to enable connection to the National Grid.
Outer Dowsing Offshore Wind (ODOW)	The Project.
Order Limits	The area subject to the application for development consent, The limits shown on the works plans within which the Project may be carried out.
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects (NSIPs).
Pre-construction and post-construction	The phases of the Project before and after construction takes place.

Term	Definition
Preliminary Environmental Information Report (PEIR)	The PEIR was written in the style of a draft Environmental Statement (ES) and provided information to support and inform the statutory consultation process in the pre-application phase.
The Project	Outer Dowsing Offshore Wind, an offshore wind generating station together with associated onshore and offshore infrastructure.
Project Design envelope	A description of the range of possible elements that make up the Project's design options under consideration, as set out in detail in the project description. This envelope is used to define the Project for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known. This is also often referred to as the "Rochdale Envelope" approach.
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of receptors include species (or groups) of animals or plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Study Area	Area(s) within which environmental impact may occur – to be defined on a receptor-by-receptor basis by the relevant technical specialist.
Subsea	Subsea comprises everything existing or occurring below the surface of the sea.
Transboundary Impacts	Transboundary effects arise when impacts from the development within one European Economic Area (EEA) state affects the environment of another EEA state(s).
Transition Joint Bay (TJBs)	The offshore and onshore cable circuits are jointed on the landward side of the sea defences/beach in a Transition Joint Bay (TJB). The TJB is an underground chamber constructed of reinforced concrete which provides a secure and stable environment for the cable.
Trenchless technique	Trenchless technology is an underground construction method of installing, repairing and renewing underground pipes, ducts and cables using techniques which minimize or eliminate the need for excavation. Trenchless technologies involve methods of new pipe installation with minimum surface and environmental disruptions. These techniques may include Horizontal Directional Drilling (HDD), thrust boring, auger boring, and pipe ramming, which allow ducts to be installed under an obstruction without breaking open the ground and digging a trench.

## Reference Documentation

Document Number	Title
5.1	Consultation Report
6.1.2	Need, Policy, and Legislative Context
6.1.3	Project Description
6.1.4	Site Selection and Consideration of Alternatives
6.1.5	EIA Methodology
6.1.6	Technical Consultation
6.1.9	Benthic and Intertidal Ecology
6.1.20	Onshore Archaeology and Cultural Heritage
6.1.21	Onshore Ecology
6.1.22	Onshore Ornithology
6.1.23	Geology and Ground Conditions
6.1.24	Hydrology and Flood Risk
6.1.27	Traffic and Transport
6.1.28	Landscape and Visual Assessment
6.1.29	Socio-Economic Characteristics
6.3.3.3	Onshore Crossing Schedule
6.3.5.3	Onshore Cumulative Effects Assessment Approach
8.1	Outline Code of Construction Practice
8.1.3	Outline Soil Management Plan
8.1.5	Outline Surface Water and Drainage Strategy
8.10	Outline Landscape and Ecological Management Strategy
8.17	Outline Public Access Management Plan

## 25 Land Use

### 25.1 Introduction

1. This chapter of the Environmental Statement (ES) presents the Environmental Impact Assessment (EIA) process and results, for the potential impacts of Outer Dowsing Offshore Wind (“the Project”) on land use. This chapter considers the potential impact of the Project landward of Mean High Water Springs (MHWS) during the construction, operation and maintenance, and decommissioning phases. Specifically, this Chapter considers the potential impact of the Project from the mean low water spring (MLWS) landfall, along the Onshore Export Cable Corridor (ECC), and incorporating the Onshore Substation (OnSS) during the construction, operation and maintenance, and decommissioning phases.
2. The Project will include both offshore and onshore infrastructure including an offshore generating station (windfarm) located approximately 54km from the Lincolnshire coastline, export cables to landfall, onshore cables, an onshore substation, connection to the electricity transmission network, and ancillary and associated development (see Volume 1, Chapter 3: Project Description 6.1.3 (document reference 6.1.3) for full details).
3. This chapter should be read alongside the following Volume 1 chapters and documents:
  - Chapter 21: Onshore Ecology (document reference 6.1.21);
  - Chapter 22: Onshore Ornithology (document reference 6.1.22);
  - Chapter 23: Geology and Ground Conditions (document reference 6.1.23);
  - Chapter 24: Hydrology, Hydrogeology and Flood Risk (document reference 6.1.24);
  - Chapter 27: Traffic and Transport (document reference 6.1.27);
  - Chapter 28: Landscape and Visual (document reference 6.1.28);
  - Chapter 29: Socio-Economic Characteristics (document reference 6.1.29); and
  - Outline Soil Management Plan (document reference 8.1.3).

### 25.2 Statutory and Policy Context

4. This section identifies the legislation and policy that has informed the assessment of effects with respect to land use. Further information on policies relevant to the EIA and their status are provided in Volume 1, Chapter 2: Need, Policy, and Legislative Context (document reference 6.1.2).

#### 25.2.1 National Legislation

5. The following United Kingdom (UK) legislation is relevant to the protection of land use:
  - Marine and Coastal Access Act 2009 (MCCA);
  - Commons Act 2006;
  - Wildlife and Countryside Act 1981; and

- Countryside and Rights of Way Act (CRoW) 2000.

### **25.2.2 National Planning Policy**

6. National Policy Statements (NPSs) form the principal planning policy against which the development consent for NSIPs is determined. Those relevant to the land use aspects of the onshore elements of the Project are:
  - EN - 1 Overarching Energy (DESNZ, 2023);
  - EN – 3 Renewable Energy Infrastructure (DESNZ, 2023) which covers national renewable energy infrastructure (including offshore generating stations in excess of 100MW); and
  - EN – 5 Electricity Networks Infrastructure (DESNZ, 2023), which covers the electricity infrastructure associated with an NSIP.
7. The NPSs set out the need for, and Government’s policies to deliver, development of NSIPs in England; accordingly, they provide the main policy tests in relation to the Project.
8. The current version of the National Planning Policy Framework (NPPF) prepared by the Department for Levelling Up, Housing and Communities with the most recent update being in December 2023. It sets out the Government’s planning policies for England and how these are expected to be applied, along with the national Planning Practice Guidance (PPG) which expands on policies contained in the NPPF.
9. The NPPF does not contain specific policies for NSIPs, as these are determined in accordance with the Planning Act 2008 (as amended) and NPS’, as well as any other matters that are relevant (which may include the NPPF).
10. Section 15 of the NPPF sets out the requirements for conserving and enhancing the natural environment. Planning decisions should seek to recognise benefits from natural capital and ecosystem services, including the economic value and other benefits of best and most versatile (BMV) agricultural land.

### **25.2.3 Regional Local Planning Policy**

11. EN-1 states that, although it supersedes local planning policies, the Planning Inspectorate may also consider Development Plan Documents or other documents in the Local Development Framework to be relevant to its decision making.
12. The Project area falls under the authority of Lincolnshire County Council as well as the following local planning authorities, with their respective Minerals and Waste Plans as well as their Local Plans:

- Lincolnshire County Council;
  - Lincolnshire Minerals and Waste Local Plan: Core Strategy and Development (Lincolnshire County Council, 2016); and
  - Lincolnshire Minerals and Waste Local Plan: Site Locations (Lincolnshire County Council, 2017).
- East Lindsey District Council; and
  - The Core Strategy (East Lindsey District Council, 2018a); and
  - Settlement Proposals Document (East Lindsay District Council, 2018b).
- South East Lincolnshire (the name for the area comprising South Holland District Council and Boston Borough Council);
  - South East Lincolnshire Local Plan 2011-2036 (South East Lincolnshire, 2019).

#### **25.2.4 Legislation and Policy Context**

13. The relevant legislation and planning policy for offshore renewable energy NSIPs, specifically in relation to land use, is outlined in Table 25.1.

Table 25.1 Legislation and policy context

Legislation/policy	Key provisions	Section where comment addressed
Marine and Coastal Access Act 2009 (MCCA)	Sections 298 to 310 set out the establishment of coastal access, including the King Charles III England Coast Path.	The presence of the King Charles III England Coast Path and coastal margins are detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.
Commons Act 2006	Section 38 details the need for national consent to carry out works which would impede public access to registered common land.	Registered common land has been detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.
Wildlife and Countryside Act 1981	Part II, sections 28 to 52 set out designations for nature conservation, and countryside and national parks.	Designated nature conservation sites and country parks have been detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.
	Part III, sections 53 to 66 set out the requirement for local authorities to define and map public rights of way.	Public rights of way have been detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.
Countryside and Rights of Way Act (CRoW) 2000	Sections 4 and 5 set out the requirement for the countryside bodies to draw up and consult on maps of open country and registered common land.	Greenspace, access and registered common land have been detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.
	Sections 47 and 48 set out the designation and requirement for the mapping of public rights of way.	Public rights of way have been detailed in the baseline review, in section 25.3. The impact on these receptors are considered in section 25.7.



Legislation/policy	Key provisions	Section where comment addressed
<p>Overarching National Policy Statement for Energy NPS EN-1) (2023).</p>	<p>Paragraph 5.11.8 states <i>'The ES (see Section 4.3) should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate to the scale of the preferred scheme and its likely impacts on such receptors. For developments on previously developed land, the applicant should ensure that they have considered the risk posed by land contamination and how it is proposed to address this.'</i></p>	<p>Detail on existing or proposed land uses can be found in section 25.3 and new developments or proposed projects are assessed for potential cumulative impacts in section 25.8.</p>
	<p>Paragraph 5.11.9 states <i>'Applicants will need to consult the local community on their proposals to build on existing open space, sports or recreational buildings and land. Taking account of the consultations, applicants should consider providing new or additional open space including green and blue infrastructure, sport or recreation facilities, to substitute for any losses as a result of their proposal. When considering proposals for green infrastructure, Applicants should refer to the Green Infrastructure Framework.'</i></p>	<p>Consultation is a key part of the Development Consent Order (DCO) application process. Consultation regarding land use has been conducted through the Evidence Plan Process (EPP) Expert Technical Group (ETG) meetings and the EIA scoping process (the Planning Inspectorate, 2022). An overview of the Project consultation process is presented within Volume 1, Chapter 6: Technical Consultation (document reference 6.1.6).</p>
	<p>Paragraph 5.11.11 states <i>'During any pre-application discussions with the applicant the LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.'</i></p>	<p>The Project has been subject to extensive pre-application discussions with the Local Planning Authority (LPA), with those which are relevant to land use impacts outlined in Table 25.2, which includes how the key issues raised have been addressed. The related policy and legislation, including the local development plans, have been outlined in section</p>

Legislation/policy	Key provisions	Section where comment addressed
		25.2, whilst the land use assessment has been undertaken in section 25.7.
	Paragraph 5.11.12 states <i>'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).'</i>	The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7. The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.6).
	Paragraph 5.11.13 states <i>'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.'</i>	The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7. The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.23).
	Paragraph 5.11.14 states <i>'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.'</i>	The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7. The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.23). A Soil Management Plan has been considered as embedded mitigation in Table 25.19.
	Paragraph 5.11.19 states <i>'Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.'</i>	The effect on mineral resources has been assessed in Chapter 23 (document reference 6.1.23).
	Paragraph 5.11.23 states <i>'Although in the case of most energy infrastructure there may be little that can be done to mitigate the direct effects of an energy project on the</i>	The effects of onshore infrastructure associated with the Project on agricultural land and soil quality are considered in section 25.7.

Legislation/policy	Key provisions	Section where comment addressed
	<p><i>existing use of the proposed site (assuming that some of that use can still be retained post project construction) applicants should nevertheless seek to minimise these effects and the effects on existing or planned uses near the site by the application of good design principles, including the layout of the project and the protection of soils during construction.'</i></p>	<p>The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.23).</p>
	<p>Paragraph 5.11.28 states '<i>Where a proposed development has an impact upon a Mineral Safeguarding Area (MSA), the Secretary of State should ensure that appropriate mitigation measures have been put in place to safeguard mineral resources.'</i></p>	<p>The effect on mineral resources has been assessed in Chapter 23 (document reference 6.1.23).</p>
	<p>Paragraph 5.11.29 states '<i>Where a project has a sterilising effect on land use (for example in some cases under transmission lines) there may be scope for this to be mitigated through, for example, using or incorporating the land for nature conservation or wildlife corridors or for parking and storage in employment areas.'</i></p>	<p>The impact of the permanent loss of agricultural land as a result of the permanent OnSS is assessed in section 25.7.</p>
	<p>Paragraph 5.11.30 – 5.11.31 states '<i>Public Rights of way, National Trails and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The Secretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails, other rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve or create new access. In considering revisions to an existing right of way, consideration should be given to the use, character, attractiveness and convenience of the right of way.</i></p>	<p>The impact on Rights of Way, National Trails and other rights of access are assessed and mitigations recommended in section 25.7.</p>

Legislation/policy	Key provisions	Section where comment addressed
	<p><i>The Secretary of State should consider whether the mitigation measures put forward by an applicant are acceptable and whether requirements or other provisions in respect of these measures should be included in any grant of development consent.'</i></p>	
	<p>Paragraph 5.11.33 states <i>'The loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location.'</i></p>	<p>Detail on existing or proposed land uses can be found in section 25.3 and new developments or proposed projects are assessed for potential cumulative impacts in section 25.8.</p>
	<p>Paragraph 5.11.34 states <i>'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.'</i></p>	<p>The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7.</p>
<p>Overarching National Policy Statement for Electricity Networks Infrastructure (NPS EN-5 2023).</p>	<p>Paragraph 2.9.25 states <i>'In such cases the Secretary of State should only grant development consent for underground or subsea sections of a proposed line over an overhead alternative if they are satisfied that the benefits accruing from the former proposal clearly outweigh any extra economic, social, or environmental impacts that it presents, the mitigation hierarchy has been followed and that any technical obstacles associated with it are surmountable. In this context it should consider:</i></p> <ul style="list-style-type: none"> <li>▪ the landscape and visual baseline characteristics of the setting of the proposed route, in particular, the impact on high sensitivity visual receptors (as</li> </ul>	<p>The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7.</p> <p>The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.23).</p> <p>A Soil Management Plan has been included as embedded mitigation in Table 25.19.</p>

Legislation/policy	Key provisions	Section where comment addressed
	<p>defined in the current edition of the Landscape Institute’s Guidelines for Landscape and Visual Impact Assessment), residential areas, designated landscapes, valued landscapes, designated heritage assets and Heritage Coasts (including, where relevant, impacts on the setting of designated features and areas), noting the policy in EN-1 section 5.4.53 on regional and local designations;</p> <ul style="list-style-type: none"> <li>▪ the additional cost of the proposed underground or sub-sea alternatives, including their significantly higher lifetime cost of repair and later uprating;</li> <li>▪ the potentially very disruptive effects of undergrounding on local communities, habitats, archaeological and heritage assets, marine environments, soil (including peat soils), hydrology, geology, and, for a substantial time after construction, landscape and visual amenity. (Undergrounding an overhead line will mean digging a trench along the length of the route, and so such works will often be disruptive – albeit temporarily – to the receptors listed above than would an overhead line of equivalent rating);</li> <li>▪ the potentially very disruptive effects of subsea cables on the seabed and the species that live in and on it, including physical damage to and full loss.</li> </ul>	
National Planning Policy Framework (NPPF)	Para 180. <i>“Planning policies and decisions should contribute to and enhance the natural and local environment by:</i>	The effects of onshore infrastructure associated with the Project on agricultural land are considered in section 25.7.

Legislation/policy	Key provisions	Section where comment addressed
	<p><i>a) protecting and enhancing valued landscapes, sites of ... geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);</i></p> <p><i>b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;...</i></p> <p><i>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, ... or land instability...</i></p> <p><i>f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”</i></p>	<p>The effects of onshore infrastructure associated with the Project on soil quality are considered in Chapter 23 (document reference 6.1.23).</p>
<p>Lincolnshire Minerals and Waste Local Plan: Core Strategy and Development (Lincolnshire County Council, 2016; 2017)</p>	<p>Policy M11: Safeguarding of Mineral Resources. The policy seeks to protect mineral resources that are of current or future economic importance from permanent sterilisation by other development.</p> <p>Policy M12: Safeguarding of Existing Mineral Sites and Associated Minerals Infrastructure. The policy seeks to safeguard mineral sites and associated infrastructure against development that would unnecessarily sterilise existing sites and infrastructure or prejudice or jeopardise their use by creating incompatible land uses nearby.</p>	<p>The land use study area is not within 250m of a Safeguarding Area as shown in the Minerals and Waste Local Plan and, as such, this has not been assessed further.</p> <p>The land use study area is not within 250m of a Safeguarded Minerals Site as shown in the Minerals and Waste Local Plan and, as such, this has not been assessed further.</p>
<p>East Lindsey District Council The Core</p>	<p>Strategic Policy 24 – Biodiversity and Geodiversity. Criteria 1 seeks for development proposals to protect and enhance the biodiversity and geodiversity value of land</p>	<p>The effects of onshore infrastructure associated with the Project on agricultural land and farm holdings are considered in section 25.7.</p>

Legislation/policy	Key provisions	Section where comment addressed
Strategy (East Lindsey District Council, 2018a)	<p>and buildings and minimise fragmentation and maximise opportunities for connection between natural habitats. Criteria 3 advises the actions the Council will take when, in exceptional circumstances, adverse impacts are demonstrated to be unavoidable, and development is permitted which would damage the nature conservation or geological value of a site. The Council will ensure that such damage is kept to a minimum and will ensure appropriate mitigation, compensation or enhancement of the site through the use of planning conditions or planning obligations.</p> <p>Compensation measures towards loss of habitat will be used only as a last resort where there is no alternative. Where any mitigation and compensation measures are required, they should be in place before development activities start that may disturb protected or important habitats and species. Proposals to provide or enhance a site will be supported.</p>	The effects on biodiversity are assessed in Chapter 21 (document reference 6.1.21).
	<p>Strategic Policy 10: Design. Criterion 8 supports development that includes measures to recycle, re-use or reduce the demand for finite resources.</p>	Embedded mitigation measures to ensure that land recovers following construction are detailed in Table 25.19.
South East Lincolnshire Local Plan 2011-2036 (South East Lincolnshire, 2019)	<p>Policy 2: Development Management Criterion 3 seeks to ensure that development would not be wasteful in its use of energy or in its depletion of natural resources.</p> <p>Policy 3: Design of New Development Criterion 13 seeks for development proposals to demonstrate the use of locally sourced building materials,</p>	<p>Embedded mitigation measures to ensure that land recovers following construction are detailed in Table 25.19.</p> <p>Embedded mitigation measures to ensure that land recovers following construction are detailed in Table 25.19.</p>

Legislation/policy	Key provisions	Section where comment addressed
	minimising the use of water and minimising land take, to protect BMV soils.	



### 25.2.5 Consultation

14. Consultation is a key part of the Development Consent Order (DCO) application process. Consultation regarding the Landscape and Visual Impact Assessment (LVIA) has been conducted through the following processes:
- Evidence Plan Process (EPP) including Expert Technical Group (ETG) meetings;
  - EIA scoping process (ODOW, 2022);
  - Section 47 consultation process (all public consultation phases including phase 1 and 1a); and,
  - Section 42 consultation process (including Phase 2 Consultation, Autumn Consultation and Targeted Winter Consultation).
15. An overview of the Project consultation process is presented within Chapter 6 (document reference 6.1.6).
16. A summary of the key issues raised during consultation to date, specific to land use, is outlined below in Table 25.2, together with how these issues have been considered in the production of this chapter.

Table 25.2 Summary of consultation relating to land use

Date	Consultation and key comments	Section where comment addressed
<b>Scoping Opinion</b>		
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.1. Table 8.6.3.	<b>Highways infrastructure – Construction</b> <i>“The Inspectorate agrees that as severance of highways infrastructure is scoped into the assessment for traffic and transport, this matter can be scoped out of the land use assessment.”</i>	Scoped out of the assessment.
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.2. Table 8.6.3.	<b>Drainage and productivity - Operation</b> <i>“The Scoping Report proposes to scope out potential impacts on agricultural drainage systems potentially leading to a loss of agricultural productivity and loss of soil structure and impacts from loss of agricultural yield and Best and Most Versatile (BMV) land from the laying of underground cables in farmland. This is scoped out on the basis that this would only occur at the construction stage and these impacts would be mitigated by the reinstatement of the land and ancillary drainage systems.</i> <i>The Scoping Report does not provide details of how agricultural land and drainage will be reinstated following construction of the onshore elements of the Proposed Development, nor does it provide evidence of its effectiveness and describe how any measures to ensure this occurs will be secured. The Inspectorate does not agree that this matter can be scoped out of the assessment at this stage. The ES should include an assessment of effects on agricultural drainage and productivity from operation, where likely significant effects could occur.”</i>	Impacts on agricultural land and the loss of productivity are assessed in section 25.7. Measures to ensure that impacts on agricultural drainage are minimised are set out in document 8.1.3. Effects on soil quality, including drainage, are assessed in Chapter 23 (document reference 6.1.23).
Scoping Opinion (the Planning	<b>Outdoor recreation land – Operation</b>	Scoped out of the assessment.

Date	Consultation and key comments	Section where comment addressed
Inspectorate, 9 September 2022) Comment ID: 3.18.3. Table 8.6.3.	<p><i>“The Inspectorate agrees that effects on outdoor recreation land would mainly occur during construction and likely to be insignificant if impacted during operation; land would be reinstated as per the CoCP. Due to the nature of the Proposed Development in its operational phase on land, the Inspectorate is content to scope this matter out.”</i></p>	
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.4. Table 8.6.3.	<p><b>Public Rights of Way (PRoW) - Operation</b>  <i>“The Inspectorate agrees that effects on PRoW are most likely to occur during construction and notes the stated intention that in the event of a cable failure, all reasonable efforts will be made to undertake repairs without affecting PRoW. Considering the nature of the Proposed Development during the operational phase, the Inspectorate is content to scope this matter out.”</i></p>	Scoped out of the assessment.
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.5. Table 8.6.3.	<p><b>Tourism - Operation</b>  <i>“The Scoping Report states that further potential temporary closures of tourism land use facilities, such as caravan/camping sites, would not be required for the O&amp;M stage of the Proposed Development; therefore, this matter is proposed to be scoped out. On the basis the ES secures and demonstrates how closures would be avoided, the Inspectorate is content to scope this matter out.”</i></p>	Scoped out of the assessment.
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.6. Paragraph 8.6.25.	<p><b>Transboundary Land Use Effects</b>  <i>“Onshore transboundary effects are scoped out of the assessment as the Applicant considers that land use effects will be localised within the AoS. The Inspectorate agrees that this matter can be scoped out of the assessment.”</i></p>	Scoped out of the assessment.
Scoping Opinion (the Planning	<p><b>Agricultural productivity</b>  <i>“As well as agricultural yield, the ES should also describe and assess effects on farm holdings or businesses of a reduction in land being</i></p>	Impacts on agricultural land holdings during the construction phase are assessed in section 25.7.

Date	Consultation and key comments	Section where comment addressed
Inspectorate, 9 September 2022) Comment ID: 3.18.7. Table 8.6.2.	<i>available for farming activities due to temporary construction activity, where likely significant effects could occur. Given that the location of the onshore elements is also not yet defined, these effects should also be considered for the operational phase of the Proposed Development, where significant effects could occur.”</i>	
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.8. Paragraphs 8.6.13 and 8.6.18	<b>Further impacts scoped into the assessment</b> <i>“The Scoping Report notes that further impacts will be identified at the latter stages of the project without providing many details as to the effects that could arise. Given the uncertainty and the lack of information to comment on the scope at this stage, the Inspectorate considers that the scope of the assessment should be developed in consultation with the consultation bodies and with reference to the stated guidance in paragraph 8.6.13. Any identified impacts should be scoped in for all stages of the Proposed Development (construction, O&amp;M and decommissioning) at this stage.”</i>	Further receptors have been identified in section 25.3 and the impacts on these receptors have been assessed in section 25.7.
Scoping Opinion (the Planning Inspectorate, 9 September 2022) Comment ID: 3.18.9.	<b>Potential effects of loss or damage to soil function</b> <i>“The Inspectorate considers that in addition to the consideration of agricultural yield, the potential effects of loss or damage to soil function should be assessed in the ES, where likely significant effects could occur. The ES should explain how loss or damage of soils has been avoided and where this impact occurs, the potential effect on soil function.”</i>	Impacts on the quality of the soil are assessed in Chapter 23 (document reference 6.1.23).
<b>ETG Meetings</b>		
ETG Meeting (online) 12 October 2022	<b>Scoping Opinion</b> Provided an overview of the elements which were agreed to be scoped out of the assessment, and those which required further discussion. Discussion opened regarding whether the elements of the land use chapter could be assessed within the chapter of other topics.	Elements of the chapter which were agreed to be scoped in and out of the assessment are provided in section 25.4. ETG stakeholders stated they would like the land use chapter to remain in the PEIR and ES.

Date	Consultation and key comments	Section where comment addressed
ETG Meeting (online) 26 January 2023	<p><b>PEIR Submission</b></p> <p>Provided update of the scope of the assessment and the study area, summary of the key data sources, update of the key receptors and methodology, explained any data gaps or uncertainties, highlighted the embedded mitigation and provided an overview of the next steps.</p>	<p>Assessment methodology is described in section 25.6.</p> <p>The scope of the assessment and key receptors detailed in section 25.4.</p> <p>The Project’s embedded mitigation is set out in Table 25.19.</p> <p>The study area and key data sources are shown in section 25.3.</p>
ETG Meeting (online) 16 March 2023	<p><b>Updates to the Chapter</b></p> <p>Provided updates that have occurred within the chapter since the previous ETG. Inclusion of tourism sites receptors to baseline, updated methodology, updated assessment, updated embedded mitigation.</p>	<p>Tourism receptors are detailed in section 25.3. Methodology is described in section 25.6. Assessment is undertaken in section 25.7. Embedded mitigation is detailed on Table 25.19.</p>
ETG Meeting (online) 2 August 2023	<p><b>Responses to Section 42</b></p> <p>Ongoing preparation for ES set out together with detailed S42 consultee responses and project responses. No areas of disagreement and no objections raised during the meeting or minutes.</p>	N/A.
ETG Meeting (online) 18 September 2023	<p><b>Responses to Section 42</b></p> <p>Ongoing preparation for ES set out together with detailed S42 consultee responses and project responses. No areas of disagreement and no objections raised during the meeting or minutes.</p>	N/A.
ETG Meeting (online) 30 November 2023	<p>Lincolnshire County Council (LCC) raised concerns about the cumulative impact of NSIP projects across the county.</p>	<p>The concerns have been addressed within section 25.8. The assessment considers the cumulative impact in relation to the permanent loss of Grade 1 and BMV agricultural land in relation to the Project, the cumulative developments within the vicinity of the location permanent losses of land, and the cumulative developments</p>

Date	Consultation and key comments	Section where comment addressed
		within Lincolnshire. Data regarding the ALC Grades for several NSIP projects was not available, however, the cumulative impact on BMV land within Lincolnshire has been assessed.
<b>Phase 2 Section 42 Responses</b>		
Lincolnshire County Council	<i>“In considering the impact on the overall farming enterprises both locally and across the District or County, it may be necessary to seek additional information on the impact on the individual farms themselves.”</i>	Impacts on agricultural land holdings during the construction phase are assessed in section 25.7.
	<i>“All the relevant issues appear to have been scoped in, albeit some of them at a very strategic level, and I do not disagree with most of the issues that have been scoped out. I am slightly concerned that the land use section scoped out drainage in respect of ‘The potential impacts on agricultural drainage systems, which could lead to a loss of agricultural productivity’.”</i>	Impacts to agricultural drainage are assessed within Chapter 23 (document reference 6.1.23), with the resulting effects considered in respect of their impact on land use. Impacts on agricultural drainage are further considered with ODOV’s appointment of a local agricultural drainage contractor to ensure pre and post construction drainage schemes are designed in a compatible way with the current drainage systems, as detailed on Table 25.19.
Weston Parish Council	<i>“The project would be taking up excellent Grade 1 agricultural land for the sub-station site, access road to the site and the areas that would be used for the route of the cabling. Disturbance of the land for the cabling would have a long-term impact on the agricultural use of the land.”</i>	Impacts on BMV agricultural land both during construction and operation, as a result of both the OnSS and onshore ECC have been assessed in section 25.7.
Freiston Parish Council	<i>“The impact assessment has not properly considered potential effects on food security. The Lincolnshire food region produces 26% of all the UK’s fresh vegetables, the majority of it produced on the belt of Grade 1</i>	Impacts on food security are considered in Chapter 29 (document reference 6.1.29),

Date	Consultation and key comments	Section where comment addressed
	<p><i>marine silt soils that border the Wash. This includes the main tract of land that is proposed for the South A52 cable route.”</i></p>	<p>through the assessment on Potential Impacts on the Agricultural Market.</p>
	<p><i>“Disruption to the farming system in these regions for up to 2 years could have significant and national consequences. These impacts would likely be as a secondary consequence of the installation of the cable, via disruption to cropping plans, rotation plans, the splitting of fields, access disruptions for all farming operations etc.”</i></p>	<p>The disruption to farming practices on an individual scale have been assessed in section 25.7 using the maximum construction temporal scale, however, it is expected that much of the disruption will be significantly shorter in duration. The Project is committed to ongoing discussions with landowners to minimise impacts to ongoing agricultural activities. The results of these discussions will be considered in the land use assessment. The Order Limits have undergone several stages of optimisation, refinements and subsequent consultations to reduce indirect impacts on agricultural practices, such as the severance of land beyond the Order Limits. Impacts on BMV agricultural land both during construction and operation, as a result of the ECC have been assessed in section 25.7. Regarding mitigation, the SMP (detailed in Table 25.19) has also undergone several phases of consultation, and will continue to do so, for the purposes of having</p>

Date	Consultation and key comments	Section where comment addressed
		measures that are effective and specific to the land which is impacted.
	<i>“Food security impacts if the cable was laid north of A52 would be lower, this land is typically used for cereal crops with lower economic values, but as cereals are commodity products they can be easily substituted via other markets.”</i>	The Project has committed to the cable route being on the North of A52 route.
Boston Borough Council	<i>“Given the quality of the agricultural land it is important that it is carefully removed, stored and replaced. This is raised in the land use chapter and promises a soil management plan as part of the code of construction practice.”</i>	The SMP has been included as an embedded mitigation measure on Table 25.19.
National Farmers Union	<i>“It is stated that there will also be up to 700 link boxes along the cable corridor... However, it is not clear whether this is the overall size or the manhole cover area, which will be at ground surface and affect agricultural operations going forward. Please could you provide clarity on this?”</i>	The impacts on BMV agricultural land during operation has included the permanent land lost to the link boxes in section 25.7.
	<i>“Please can you confirm whether the effect of heat dissipation on soils has been addressed and the measures that will be taken to reduce the impact of heat dissipation from the scheme?”</i>	Impacts of cable heat dissipation have been considered in the operational phase assessment in section 25.7.
	<i>“We note that there is no mention of consideration of land parcels managed under agri-environmental agreements within the ‘Land Use’ section. The NFU would like Outer Dowsing to take into consideration the impact of construction on agri-environmental schemes and aim to avoid these areas where possible and consider what notification could be given to landowners/occupiers where derogations may be needed.”</i>	Land parcels managed under agri-environmental agreements have been identified in six ECC route segments (ECC 1, 3, 4, 5, 7, and 8), as detailed in section 25.3, and have been assessed in section 25.7.  The Project will notify farmers to consider whether they have land affected under such a scheme and to notify their



Date	Consultation and key comments	Section where comment addressed
		respective Countryside Stewardship advisor.
	<i>“Table 25.30 of section 6.1.25 of the PEIR (Land Use) states that where required and practical, crossing points will be used so that livestock and vehicles can cross the working width of the ECC. This will be essential where vegetable crops are grown, especially the time between picking and the pack house.”</i>	Crossing points have been included as an embedded mitigation measure on Table 25.19.
Natural England – Annex F – Onshore Ecology	<p><i>“We advise that it is the responsibility of landowners with an agreement to manage land within a Higher Tier Countryside Stewardship scheme to ensure that their agreement is not compromised by cables crossing the land being managed.</i></p> <p><i>We advise that Landowners should contact their relevant Countryside Stewardship advisor (whether that is with the Rural Payments Agency or Natural England). The project could help facilitate this by including prompts to discuss Countryside Stewardship with landowners in their landowner engagement plan.”</i></p>	<p>Land parcels managed under agri-environmental agreements have been identified in section 25.3 and assessed in section 25.7.</p> <p>The Project has notified farmers to consider whether they have land affected under such a scheme and to notify their respective Countryside Stewardship advisor.</p>
	<i>“We advise that the development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development... Appropriate mitigation measures should be incorporated for any adverse impacts.”</i>	Access land, common land, PRowS and coastal margins have been identified in section 25.3 and assessed in section 25.7.
<b>Autumn Consultation Section 42 Responses</b>		
Natural England (22 November 2023)	<i>“Natural England’s statutory remit is to advise on projects where the total amount of agricultural land lost exceeds 20 hectares. We advise that the project notes this and includes a summary of agricultural land lost when justifying the impact in the Environmental Statement.”</i>	The permanent loss of agricultural land has been assessed in section 25.7, along with the total area of agricultural land expected to be lost from the OnSS, link boxes, landscaping, drainage, access and associated infrastructure.

17. As identified in Chapter 3 (document reference 6.1.3) and Volume 1, Chapter 4: Site Selection and Alternatives (document reference 6.1.4), the project design envelope has been refined throughout the stages of the Project prior to DCO submission. This process has been informed by stakeholder consultation feedback.
18. The refinement of the onshore ECC has been an iterative process informed by engineering considerations, environmental considerations, and consultation feedback. One of the key design refinements relevant to land use was the adoption of an alternative onshore ECC that was proposed following initial feedback regarding the potential presence of running silts, it was also raised that the section of onshore ECC in question also impacted predominately Grade 1 agricultural land. It was noted by the Project that should the presence of running silts be verified by ground investigations this could alter the anticipated engineering and environmental considerations. An Alternative Route was therefore proposed, this route also affected less Grade 1 land than the original route. Both routes were taken forward for assessment at PEIR. Following completion of a ground investigation campaign, further environmental surveys, and feedback from the Phase 2 consultation on the Project's PEIR, it was confirmed that the alternative route option would be taken forward.

## **25.3 Baseline Environment**

### **25.3.1 Study Area**

19. The land use study area is shown on Figure 25.1, Volume 2, Chapter 25 (document reference 6.2.25) and comprises the Order Limits for the onshore elements of the Project (as described in Chapter 3 (document reference 6.1.3)) from MLWS to the National Grid substation (NGSS) Connection Area, including the OnSS location, the onshore ECC and the 400kV Cable Corridor connecting the OnSS with the NGSS (as well as associated ancillary infrastructure such as haul roads and temporary construction compounds).
20. The study area and available data have been agreed with stakeholders via the Scoping Report and PEIR, and discussed further through the subsequent ETGs, as detailed in Table 25.2. Land uses located beyond the Order Limits would not be directly impacted by the Project and, therefore, receptors wholly located outside of the Order Limits are not considered within the assessment. However, where relevant to the Cumulative Effects Assessment (CEA), further receptors beyond the Order Limits have been considered in section 25.8.
21. The study area is defined by the Order Limits as this reflects the boundary of direct impacts on land use. Impacts beyond the Order Limits, such as noise, are not anticipated to impact land use and are assessed within the relevant chapters of this ES.

### **25.3.2 Data Sources**

22. The characterisation of the land use baseline environment for the study area has been carried out through the gathering of data from publicly available information and a range of desk-based sources.

23. A desk-based review of the land use study area, aided by Geographical Information System (GIS) mapping, has been undertaken. To establish the current land use baseline, the sources displayed in Table 25.3, have been used.

Table 25.3 Land use data sources

Data	Reference / Source
Conservation and Enhancement Scheme Agreements (England)	Natural England (via open data): <a href="https://data.gov.uk">Conservation and Enhancement Scheme Agreements (England) - data.gov.uk</a>
Provisional Agricultural Land Classification Grade	Natural England (via open data): <a href="https://data.gov.uk">Provisional Agricultural Land Classification (ALC) - data.gov.uk</a>
Statutory and Non-Statutory Environmental Designations	DEFRA Multi-Agency Geographic Information for the Countryside (MAGIC) <a href="https://magic.defra.gov.uk/magicmap.aspx">https://magic.defra.gov.uk/magicmap.aspx</a>
Soil Type and Character	UK Soil Observatory: <a href="http://www.ukso.org/static-maps/soils-of-england-and-wales.html">http://www.ukso.org/static-maps/soils-of-england-and-wales.html</a> Cranfield Soil and Agrifood Institute Soilscales map viewer: <a href="https://landis.org.uk">Soilscales soil types viewer - National Soil Resources Institute. Cranfield University (landis.org.uk)</a>
Local planning allocations	East Lindsey Council (2018) Local Plan Core Strategy
Land use	Google Earth aerial photography

### 25.3.3 Existing Environment

24. This section describes the present conditions which constitute the existing baseline environment for land use within the onshore study area.
25. The onshore ECC will make landfall at Wolla Bank and head south to Weston Marsh. A description of the proposed works relevant to the ECC is detailed in Chapter 3 (document reference 6.1.3).
26. The onshore study area for land use is defined by the application Order Limits. Due to the linear footprint of the Project, the study area is relatively large-scale, therefore to assist with the interpretation and explanation of associated data, the Order Limits have been split into segments. The extent of these segments has been aligned with key geographical features such as roads or rivers which cross the Order Limits.
27. For the purposes of this land use assessment, the study area segments from landfall to the Connection Area are as follows:
- ECC 1: Landfall to A52 - Hogsthorpe;
  - ECC 2: A52 - Hogsthorpe to Marsh Lane;
  - ECC 3: Marsh Lane to A158 - Skegness Road;
  - ECC 4: A158 - Skegness Road to Low Road;
  - ECC 5: Low Road to Steeping River;

- ECC 6: Steeping River to Fodder Dike Bank/Fen Bank;
- ECC 7: Fodder Dike Bank/Fen Bank to Broadgate;
- ECC 8: Broadgate to Ings Drove;
- ECC 9: Ings Drove to Church End Lane;
- ECC 10: Church End Lane to The Haven;
- ECC 11: The Haven to Marsh Road;
- ECC 12: Marsh Road to Fosdyke Bridge;
- ECC 13: Fosdyke Bridge to Surfleet Marsh OnSS/Marsh Drove; and
- ECC 14: Surfleet Marsh OnSS/Marsh Drove to the Connection Area.

#### 25.3.3.1 Key Land Use Receptors

28. The following provides a brief overview of the key land use receptors to be identified within the study area. Unless stated otherwise, the key land use receptors have been identified within the study area.

##### *Agricultural Land Classification*

29. The majority of the onshore ECC crosses agricultural land uses. The route has been assessed using Agricultural Land Classification (ALC) which provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system (Natural England, 2021). It is the only approved system for grading agricultural land quality in England and Wales.
30. The Natural England Provisional ALC maps have been used to classify the soils across the study area. The majority of the route crosses agricultural land, and the land has been categorised into one of the following grades:
- Grade 1: excellent quality agricultural land;
  - Grade 2: good quality agricultural land;
  - Grade 3a: good to moderate quality agricultural land;
  - Grade 3b: moderate quality agricultural land;
  - Grade 4: poor quality agricultural land;
  - Grade 5: very poor quality agricultural land; and
  - Urban.
31. Due to the current scale of the published ALC mapping, it is not possible to differentiate between the sub-grades Grade 3a and Grade 3b, with only the overall Grade 3 present in the Natural England Provisional ALC maps. This is of relevance as Natural England describe BMV land as Grades 1 – 3a, with Grade 3b not being considered BMV land. A worst case scenario (WCS) has been assumed in that all Grade 3 has the potential to be Grade 3a, therefore, BMV soils.

32. Consideration of soil resource and agricultural drainage is addressed in Chapter 23 (document reference 6.1.23).

#### *Agri-Environmental Schemes*

33. Agri-environmental schemes often comprise areas of agricultural land and/or ecological designations, and are agreements aimed at improving the effectiveness of sustainable farming methods and/or the success of conservation efforts, depending on the agreement in place for each particular scheme.

34. Impacts related to conservation and biodiversity would be assessed in Chapter 21 (document reference 6.1.21), whilst those related to any potential financial impacts as a result of a breach of any agreement would be assessed in Chapter 29 (document reference 6.1.29).

35. Examples of agri-environmental schemes include:

- Higher Level Environmental Stewardship Scheme Agreement;
- Countryside Stewardship Scheme Agreement; and
- Entry Level Environmental Stewardship Scheme Agreements.

36. These schemes are progressively being replaced under the current Environmental Land Management System regime, including new schemes for Sustainable Farming Incentive, Countryside Stewardship and Landscape Recovery for large scale projects.

#### *Outdoor Recreational Sites*

37. Outdoor recreational sites comprise land, in the context of the Project, predominately for recreational purposes. For land use, the sensitivity has been strictly based on the direct usage of the land, including its recreational value and, as with other land uses, its productivity, importance and malleability to temporary and/or permanent change. Consideration of public recreation is addressed in Chapter 29 (document reference 6.1.29).

38. Examples of outdoor recreational sites include:

- Tourism sites;
- Rivers; and
- Leisure parks.

39. PROWs are considered under the 'Walkers, Cyclists and Horse Riders' receptor grouping (paragraph 42).

### *Ecological Designations*

40. Ecological Designations comprise land that has an ecological and/or biodiversity importance. For land use, the sensitivity has been strictly based on the direct usage of the land, including its conservational value (as denoted by the importance of its designation) and, as with other land uses, its malleability to temporary and/or permanent change. Consideration of biodiversity value is addressed in Chapter 21 (document reference 6.1.21).

41. Examples of ecological designations include:

- Sites of Special Scientific Interest (SSSI);
- Ancient Woodland;
- Special Area of Conservation; and
- Local Nature Reserves.

### *Walkers, Cyclists and Horse Riders*

42. Walkers, cyclists and horse riders is the term used within the DMRB guidance for linear recreational routes (National Highways, 2020). For land use, the sensitivity has been strictly based on the direct usage of the land, including its recreational value and, as with other land uses, its productivity, importance and malleability to temporary and/or permanent change. Consideration of public recreation is addressed in Chapter 29 (document reference 6.1.29).

43. Examples of linear recreational routes include:

- King Charles III England Coast Path;
- National Cycle Routes;
- Long-distance routes; and
- PRowWs:
  - Footpaths;
  - Bridleways;
  - Byways Open to All Traffic; and
  - Restricted byways.

### *Access/Common Land*

44. Areas of access and/or common land often have public rights to roam for non-vehicular recreational activities. Such areas include:

- Registered common land; and
- Coastal margins.

### *Greenspace*

45. Greenspace is similar to that of access and common land, whereby it is an area of land that the public has an intrinsic right to access for recreational purposes, however, greenspace is often also a visually appealing natural or managed areas of land. Examples of greenspace include:

- Village Greens;
- Doorstep Greens;
- Millenium Greens;
- Country Parks;
- National Parks; and
- Registered Parks and Gardens.

### *Coastal Use*

46. Coastal use refers to usages of land along the coast. Of relevance to land use would be the presence of a beach which is used for recreational purposes.

### *Utilities*

47. Utilities are located in abundance throughout the UK, examples of utilities would be:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
  - Electric - low voltage (underground);
  - Electric - low voltage (overhead);
  - Electric - not specified (overhead);
- Gas utilities;
  - Gas – national high pressure (underground);
  - Gas – medium pressure (underground);
  - Gas – not specified (underground);
- Pipeline utilities;
  - Pipeline (underground);
- Rail utilities;
  - Rail - culvert (underground);
  - Rail - DB asset line (underground);
  - Rail - DC asset line (underground);

- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities;
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities; and
  - Water – not specified (underground);
  - Water – potable water (underground);
- LCC Utilities:
  - Cable (underground); and
  - Surface water drainage (underground).

#### *Historical Sites*

48. Historical sites are areas of land with a historical significance, importance or designation. Archaeological and cultural heritage impacts are assessed in Chapter 20 (document reference 6.1.20). Examples of historical sites of relevance to land use include:

- Scheduled Monuments;
- Registered Battlefields;
- World Heritage Sites; and
- Listed Buildings.

49. No such areas have been identified within the land use study area.

#### *Planning Allocations*

50. Planning allocations are land which are allocated within the local authorities local development plan. Planning allocations of relevance to the land use assessment would be areas allocated for housing and/or employment.

51. No such areas have been identified within the land use study area.

#### 25.3.3.2 **ECC 1: Landfall to A52 - Hogsthorpe**

##### *Agricultural Land Classification*

52. The soils identified across ECC 1 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.



53. The type, and quality, of soils can factor into the quality of the agricultural land. The Natural England provisional ALC maps have been used to classify the agricultural land use across the study area (Natural England, 2021). The majority of the ECC 1 route segment crosses agricultural land, which has been categorised into one of the grades described in paragraph 30, shown in Figure 25.2.1, Volume 2, Chapter 25 (document reference 6.2.25) and described in Table 25.4.

Table 25.4 ECC 1 Landfall to A52 – Hogsthorpe ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 1 Segment
Grade 3	65.35	82.26
Not Graded (coastal area)	14.1	17.74
<b>Total</b>	<b>79.45</b>	<b>100</b>

54. ALC mapping does not extend to the MHWS. Therefore, the coastal areas around the landfall have not been graded as part of the ALC classification.

55. The ALC maps, shown on Figure 25.2.1, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 1 is predominately Grade 3 land and is, therefore, considered to be ‘*good to moderate quality agricultural land*’ (Natural England, 2021). The published ALC mapping does not differentiate between Grade 3a and 3b, with only ‘Grade 3’ generally being shown on the mapping at present. As outlined in Table 25.21, Grade 3a would be determined as high sensitivity, whereas Grade 3b as medium sensitivity.

56. Land which has been mapped as Grade 3 is assumed to be Grade 3a and, therefore, BMV agricultural land. When considering this, the sensitivity of the agricultural land use is determined to be high, as per Table 25.21.

#### *Agri-Environmental Schemes*

57. There is one scheme present within this segment of the study area shown on Figure 25.2.1, Volume 2, Chapter 25 (document reference 6.2.25), a Higher Level Environmental Stewardship Scheme Agreement, where farmers are provided funding for the management and conservation of environmentally important sites by Natural England, on behalf of Defra. In this case, the scheme is related to the Anderby Marsh LNR and is the highest level of Environmental Stewardship Scheme Agreements, which are considered to be of regional importance and medium sensitivity, as per Table 25.21.

#### *Outdoor Recreational Sites*

58. The entirety of the coastal landfall area is within ECC 1 shown on Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25), which can be utilised as a source of freely accessible public recreational land. The entirety of the coastal area is within Wolla Bank beach and the Lincolnshire Coastal Country Park, which are considered as coastal uses and greenspace, respectively.

59. No further areas of outdoor recreational sites have been identified in this route segment which are not described under more specific headings.

### *Ecological Designations*

60. In addition to Wolla Bank beach, ECC 1 also includes the Anderby Marsh LNR and Anderby Creek Sand Dunes LNR which do not appear to be used for recreation, with Anderby Marsh LNR not publicly accessible; however, Anderby Creek Sand Dunes LNR could be utilised for this. Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25) shows that both receptors border the beach, which is more accessible and is known to be used for recreational activities. These receptors are considered to be of medium sensitivity, as per Table 25.21.

### *Walkers, Cyclists and Horse Riders*

61. Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25) shows that the inland area of the landfall is crossed by the King Charles III England Coast Path, as well as the coastal margin encompassing the land seaward (Natural England, 2023a). This route follows along the coastline and is present throughout the proposed landfall area and would intersect the ECC. This is a nationally promoted walking route that would potentially attract visitors to the area and is considered to be of high sensitivity.

62. Due to this segment's proximity to the coast, there is a relatively extensive network of PROWs, of which approximately 11 cross the path of the ECC (Ande/18/1, Ande/19/1, Ande/19/2, Ande/19/3, Chap/19/5, Chap/21/3, Chap/27/3, Hogs/28/1, Hogs/34/4, Hogs/57/1, and Hogs/58/2). These are of local importance and are considered to be of low sensitivity, as per Table 25.21.

### *Access/Common Land*

63. The King Charles III England Coast Path includes an area identified as a 'coastal margin' on Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25), which includes all land between the King Charles III England Coast Path and the sea (Natural England, 2023b). The margin allows public rights of access to areas, such as beaches, however, does contain some restriction related to arable land, private property and health and safety. The King Charles III England Coast Path's coastal margin is considered to only be a recreational resource and destination through its association with the King Charles III England Coast Path itself and is covered in its entirety by a more formal receptor and recreational destination, Wolla Bank Beach. The coastal margin is, therefore, considered to be of low sensitivity, as per Table 25.21.

### *Greenspace*

64. The landfall area includes the Lincolnshire Coastal Country Park, which is primarily used by dog walkers, other recreation walking and has an area for parking allowing for greater public access (Lincolnshire County Council, 2024).

65. The Lincolnshire Coastal Country Park covers a large area, the vast majority of which is agricultural land and not publicly accessible, with the main features being the coastal walking routes and beaches. The scale of the Lincolnshire Coastal Country Park is expressed on Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25). Country Parks are considered to be of regional importance and medium sensitivity, as per Table 25.21.

66. There are no Village Greens, Doorstep Greens, Millenium Greens, National Parks or Registered Parks and Gardens in this route segment.

#### *Coastal Use*

67. The intertidal area at landfall is part of the Greater Wash Special Protection Area (SPA), which will be assessed in Volume 1, Chapter 9: Benthic and Intertidal Ecology (document reference 6.1.9) and Chapter 21 (document reference 6.1.21).

68. The ECC 1 route segment shown on Figure 25.3.1, Volume 2, Chapter 25 (document reference 6.2.25) contains Wolla Bank Beach, which is popular with walking, dog walking and accessing the various surrounding conservation sites, particularly through its car park (Explore Lincolnshire, 2024).

69. There is no available testing to ascertain the bathing water quality, however, testing results are available for the nearby Anderby beach (Environment Agency, 2023a), located approximately 1.4km to the north, and Chapel St. Leonards beach, (Environment Agency, 2023b) located approximately 3km to the south. Both Anderby and Chapel St. Leonards beaches have been rated as excellent each year from 2019 to 2023, with neither having been in receipt of the 2022 Blue Flag or Seaside Awards.

70. Due to the availability of high-quality beaches in Lincolnshire, their usages, and the lack of data regarding the quality of Wolla Bank beach, it is considered to be of local importance and low sensitivity, as per Table 25.21.

#### *Utilities*

71. There are numerous underground utilities present throughout the study area, as well as within the individual route segments. As shown on Figure 25.4.1, Volume 2, Chapter 25 (document reference 6.2.25), the following have been identified in ECC 1:

- Electricity utilities;
  - Electric - high voltage (overhead);
  - Electric - low voltage (overhead);
- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

72. Utilities are considered to be of high sensitivity, as per Table 25.21.

### 25.3.3.3 ECC 2: A52 - Hogsthorpe to Marsh Lane

#### *Agricultural Land Classification*

73. The soils identified across ECC 2 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.

74. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 2, as described in Table 25.5.

Table 25.5 ECC 2 A52 Hogsthorpe to Marsh Lane ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 2 Segment
Grade 3	45.66	100
<b>Total</b>	<b>45.66</b>	<b>100</b>

75. The ALC maps, shown on Figure 25.2.2, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 2 is entirely Grade 3 land and is, therefore, considered to be ‘good to moderate quality agricultural land’ (Natural England, 2021).

76. As Grade 3 is assumed to be BMV agricultural land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

77. There were no agri-environmental schemes identified in ECC 2.

#### *Outdoor Recreational Sites*

78. The land use in ECC 2 is predominantly agricultural and lacks spaces which could be used for outdoor recreation. Of note is the Willoughby High Drain, which intersects the ECC and has several agricultural drains in the area feeding into it, as shown on Figure 25.3.2, Volume 2, Chapter 25 (document reference 6.2.25). However, it is considered to not be used for recreational purposes.

#### *Ecological Designations*

79. No ecological designations have been identified in ECC2.

#### *Walkers, Cyclists and Horse Riders*

80. The PRoW Hogs/50/1 briefly encroaches the study area, with Hogs/48/1 fully intersecting it in this segment of the ECC, as shown on Figure 25.3.2, Volume 2, Chapter 25 (document reference 6.2.25). These PRoW are considered to be of local importance and, therefore, they are considered to be low sensitivity.

#### *Access/Common Land*

81. No areas of access or common land have been identified in ECC2.

#### *Greenspace*

82. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 2.

#### *Utilities*

83. As shown on Figure 25.4.2, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified within ECC 2:

- Electricity utilities;
  - Electric - high voltage (overhead);
  - Electric - low voltage (overhead);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

84. Utilities are considered to be of high sensitivity.

#### 25.3.3.4 ECC 3: Marsh Lane to A158 - Skegness Road

##### *Agricultural Land Classification*

85. The soils identified across ECC 3 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.

86. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 3, as described in Table 25.6.

Table 25.6 ECC 3 Marsh Lane to A158 Skegness Road ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 3 Segment
Grade 3	37.33	100
<b>Total</b>	<b>37.33</b>	<b>100</b>

87. The ALC maps, shown on Figure 25.2.3, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 3 is predominately Grade 3 land and is, therefore, considered to be ‘good to moderate quality agricultural land’ (Natural England, 2021).

88. As Grade 3 is assumed to be BMV agricultural land, the sensitivity of the agricultural land use is determined to be high.

### *Agri-Environmental Schemes*

89. There are a further two Environmental Stewardship Scheme Agreements in ECC 3, which are located in the far south of the route segment and are crossed by the ECC in the fields north of the A158, as shown on Figure 25.2.3, Volume 2, Chapter 25 (document reference 6.2.25). Paragraph 33 details how land which is under an agri-environmental scheme differs to other agricultural land; the schemes often have further agreed responsibilities for the landowner/farmer to sustainably work their land and protect the surrounding habitats and environment. This then means that areas of land covered by an agri-environmental scheme have a potentially higher environmental quality, or are working towards this.
90. Both schemes are 'Entry Level', which is the lowest level of Environmental Stewardship Scheme Agreements and involves low-intensity farm management techniques which can promote biodiversity (e.g., hedgerow management, low input grassland, buffer strips and options to protect soils). This level of scheme is considered to be of low sensitivity.
91. The concentration of agri-environmental schemes in this area is likely due to the, now ended, Lincolnshire Coastal Grazing Marshes Partnership, which began in 2003. The Partnership aimed to support local farmers and landowners to conserve the remaining traditional grazing marsh by providing access to grants, advice and training (Lincolnshire Coastal Grazing Marshes Project, 2011).

### *Outdoor Recreational Sites*

92. Although ECC 3 is close to several fishing lakes, as well as Skegness Golf Centre, a 9-hole golf course with holiday accommodation, none of the recreational land falls within the study area.
93. However, an application for the siting of up to 62 static caravans was approved in June 2022 by East Lindsey District Council (Ref: S/023/02392/21) and is located within ECC 3 as shown on Figure 25.3.3, Volume 2, Chapter 25 (document reference 6.2.25). The application is also related to the fishing lakes present on the site and would be used in conjunction with the recreational users of the lake. It is considered that this area of tourist land would have the potential to draw in visitors from a local – regional level and is assessed as low to medium sensitivity, as per Table 25.21.

### *Ecological Designations*

94. No ecological designations have been identified in ECC 3.

### *Walkers, Cyclists and Horse Riders*

95. Figure 25.3.3, Volume 2, Chapter 25 (document reference 6.2.25) shows that the number of PRoWs increases when in closer proximity to the urban settlements of Burgh-le-Marsh and Skegness, with BurM/265/1 crossing the ECC as it links the two towns. This is considered to be of local importance and low sensitivity.

### *Access/Common Land*

96. No areas of access or common land have been identified in ECC 3.

### *Greenspace*

97. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 3.

#### *Utilities*

98. As per Figure 25.4.3, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 3:

- Electricity utilities;
  - Electric - high voltage (overhead);
- Gas utilities;
  - Gas – medium pressure (underground);
- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – not specified (underground); and
  - Water – potable water (underground).

99. Utilities are considered to be of high sensitivity.

#### 25.3.3.5 ECC 4: A158 - Skegness Road to Low Road

##### *Agricultural Land Classification*

100. The soils identified across ECC 4 are described as having a ‘*loamy and clayey*’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘*Loamy and clayey soils of coastal flats with naturally high groundwater*’.

101. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 4, as described in Table 25.7.

Table 25.7 ECC 4 A158 – Skegness Road to Low Road ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 4 Segment
Grade 2	4.01	17.1
Grade 3	19.45	82.9
<b>Total</b>	<b>23.46</b>	<b>100</b>

102. The ALC maps, shown on Figure 25.2.4, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 4 is majority Grade 3 land with a sizeable area of Grade 2 land and is, therefore, considered to be ‘*good to moderate quality agricultural land*’ (Natural England, 2021).

103. As the majority of ECC 4 is mapped as Grade 2 or 3 and, therefore, BMV agricultural land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

104. A further two Entry Level Environmental Stewardship Scheme Agreements are located immediately south of the A158, where they are crossed by the ECC, as shown on Figure 25.2.4, Volume 2, Chapter 25 (document reference 6.2.25). As these are the lowest level of Agreement, with the lowest level of intensity in the sustainable farming practices required to meet the terms of the Agreement, they are considered to be of low sensitivity.

#### *Outdoor Recreational Sites*

105. There are no areas of outdoor recreational land that have been identified within ECC 4.

#### *Ecological Designations*

106. No ecological designations have been identified in ECC 4.

#### *Walkers, Cyclists and Horse Riders*

107. Similarly to the previous route segment, Figure 25.3.4, Volume 2, Chapter 25 (document reference 6.2.25) shows that the PRoWs here are associated with the towns of Burgh-le-Marsh and Skegness, with three of these crossing the Order Limits (BurM/260/1, BurM/261/3 and BurM/263/2). These routes are considered to be of local importance and low sensitivity.

#### *Access/Common Land*

108. No areas of access or common land have been identified in ECC 4.

#### *Greenspace*

109. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 4.

#### *Utilities*

110. As per Figure 25.4.4, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 4:

- Electricity utilities;
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
- Gas utilities;
  - Gas – medium pressure (underground);
- Telecoms utilities; and
  - Telecom (underground);
- Water utilities:
  - Water – not specified (underground); and



- Water – potable water (underground).

111. Utilities are considered to be of high sensitivity.

### 25.3.3.6 ECC 5: Low Road to Steeping River

#### *Agricultural Land Classification*

112. The soils identified across ECC 5 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.

113. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 5, as described in Table 25.8.

Table 25.8 ECC 5 Low Road to Steeping River ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 5 Segment
Grade 2	40.9	75.28
Grade 3	13.43	24.72
<b>Total</b>	<b>54.33</b>	<b>100</b>

114. The ALC maps, shown on Figure 25.2.5, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 5 is predominately Grade 2 land and is, therefore, considered to be ‘very good quality agricultural land’ (Natural England, 2021).

115. As all of ECC 5 is mapped as either Grade 2 or Grade 3 land, and assumed to be BMV agricultural land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

116. Figure 25.2.5, Volume 2, Chapter 25 (document reference 6.2.25) also shows that ECC 5 contains three agri-environmental schemes. In the eastern half of ECC 5 is a Countryside Stewardship Scheme Agreement and located to the south of Croft, which is akin to that of the highest level of Environmental Stewardship Scheme Agreements.

117. Further west there are two Entry Level Environmental Stewardship Scheme Agreements, which are associated with the same landowner. These are situated on neighbouring land parcels, which are separated by the B1195, Wainfleet Road.

118. The Countryside Stewardship Scheme Agreements and Entry Level Environmental Stewardship Scheme Agreements are considered to be of medium and low sensitivity, respectively.

#### *Outdoor Recreational Sites*

119. Figure 25.3.5, Volume 2, Chapter 25 (document reference 6.2.25) shows that the ECC initially crosses the River Lymn, then the Wainfleet Relief Channel, before finally being crossed by the Steeping River in ECC 5, each of which could be used for recreational activities, as well as supporting agricultural drainage. Statutory main rivers considered to be of high sensitivity.

120. Owing to the extent of the high-productivity agricultural land there are no further areas of outdoor recreational land.

#### *Ecological Designations*

121. No ecological designations have been identified in ECC 5.

#### *Walkers, Cyclists and Horse Riders*

122. Similarly to the previous ECC segments, Figure 25.3.5, Volume 2, Chapter 25 (document reference 6.2.25) shows that the PRoWs here are associated with the town of Croft, with one of these crossing the Order Limits (Crof/264/1). This route is considered to be of local importance and low sensitivity. There is a further cluster of three located further west on the ECC (Crof/276/3, Crof/276/4 and Crof/276/2). These are each considered to be of local importance and low sensitivity.

#### *Access/Common Land*

123. No areas of access or common land have been identified in ECC 5.

#### *Greenspace*

124. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 5.

#### *Utilities*

125. As per Figure 25.4.5, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 5:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
- Rail utilities;
  - Rail - culvert (underground);
  - Rail - DB asset line (underground);
  - Rail - DC asset line (underground);
- Telecoms utilities; and
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

126. Utilities are considered to be of high sensitivity.

### **25.3.3.7 ECC 6: Steeping River to Fodder Dike Bank/Fen Bank** *Agricultural Land Classification*

127. The soils identified in the majority of ECC 6 are described as having a ‘loamy and clayey’ texture and within the wider regional soilscape 21 classification (Cranfield University, 2024a), with the soils in the northwest described as having a ‘peaty’ texture (Cranfield University, 2024b), within the wider regional soilscape 23 classification.
128. Soilscape 21 and 23 classifications are defined, respectively, as:
- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’; and
  - ‘Loamy and sandy soils with naturally high groundwater and a peaty surface’.
129. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 6, as described in Table 25.9.

Table 25.9 ECC 6 Steeping River to Fodder Dike Bank/Fen Bank ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 6 Segment
Grade 2	30.71	100
<b>Total</b>	<b>30.71</b>	<b>100</b>

130. The ALC maps, shown on Figure 25.2.6, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 6 is predominately Grade 2 land and is, therefore, considered to be ‘very good quality agricultural land’ (Natural England, 2021).
131. As ECC 6 is mapped as predominately Grade 2, which is BMV land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

132. There were no agri-environmental schemes identified in ECC 6.

#### *Outdoor Recreational Sites*

133. There are no areas of outdoor recreational land that have been identified within ECC 6.

#### *Ecological Designations*

134. No ecological designations have been identified in ECC 6.

#### *Walkers, Cyclists and Horse Riders*

135. Figure 25.3.6, Volume 2, Chapter 25 (document reference 6.2.25) shows that one PRoW, WStM/371/1, intersects this segment of the ECC from south to north and exiting in a westerly direction. This is considered to be of local importance and low sensitivity.

#### *Access/Common Land*

136. One area of registered common land has been identified in this route segment, shown on Figure 25.3.6, Volume 2, Chapter 25 (document reference 6.2.25). The Hallgate (Lindsey) CL108 intersects the ECC and comprises a minor road and footpath (Association of Commons Registration Authorities, 2008). CL108 is associated with local agricultural drains between Hall Road in the southeast and Church Lane to the northwest; registered common land is considered to be of local importance and low sensitivity.

### Greenspace

137. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 6.

### Utilities

138. As per Figure 25.4.6, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 6:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (overhead);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

139. Utilities are considered to be of high sensitivity.

### 25.3.3.8 ECC 7: Fodder Dike Bank/Fen Bank to Broadgate

#### Agricultural Land Classification

140. The soils identified in the majority of ECC 7 are described as having a '*loamy and clayey*' texture and within the wider regional soilscape 21 classification (Cranfield University, 2024a), with the soils in the northwest described as having a '*peaty*' texture (Cranfield University, 2024b), within the wider regional soilscape 23 classification.

141. Soilsapes 21 and 23 classifications are defined, respectively, as:

- '*Loamy and clayey soils of coastal flats with naturally high groundwater*'; and
- '*Loamy and sandy soils with naturally high groundwater and a peaty surface*'.

142. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 7, as in Table 25.10.

Table 25.10 ECC 7 Fodder Dike Bank/Fen Bank to Broadgate ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 7 Segment
Grade 1	0.01	0.02
Grade 2	50.15	99.98
<b>Total</b>	<b>50.16</b>	<b>100</b>

143. The ALC maps, shown on Figure 25.2.7, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 7 is predominately Grade 2 and is, therefore, considered to be '*very good quality agricultural land*' (Natural England, 2021).

144. As ECC 7 is mapped as predominately Grade 2, which is BMV land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

145. Figure 25.2.7, Volume 2, Chapter 25 (document reference 6.2.25) shows that there is one agri-environmental scheme within this segment of the ECC, a Countryside Stewardship Scheme Agreement. This scheme is located on land west of Patmans Lane and is considered to be of medium sensitivity.

#### *Outdoor Recreational Sites*

146. There are no areas of outdoor recreational land that have been identified within ECC 7.

#### *Ecological Designations*

147. No ecological designations have been identified within ECC 7.

#### *Walkers, Cyclists and Horse Riders*

148. There are no named PRoWs, footpaths, bridleways or cycle routes identified in ECC 7.

#### *Access/Common Land*

149. No areas of access or common land have been identified in ECC 7.

#### *Greenspace*

150. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 7.

#### *Utilities*

151. As per Figure 25.4.7, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 7:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (overhead);
  - Electric - low voltage (overhead);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

152. Utilities are considered to be of high sensitivity.

### 25.3.3.9 ECC 8: Broadgate to Ings Drove

#### *Agricultural Land Classification*

153. The soils identified across ECC 8 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:
- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.
154. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 8, as described in Table 25.11.

Table 25.11 ECC 8 Broadgate to Ings Drove ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 8 Segment
Grade 1	25.59	49.98
Grade 2	25.6	50.02
<b>Total</b>	<b>51.19</b>	<b>100</b>

155. The ALC maps, shown on Figure 25.2.8, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 8 is predominately Grade 1 and Grade 2 land. This is considered to range from ‘excellent quality agricultural land’ to ‘very good quality agricultural land’ (Natural England, 2021).
156. As all of ECC 8 is mapped as either Grade 1 or Grade 2 agricultural land, which is BMV land, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

157. There are two Organic Entry Level plus Higher Level Environmental Stewardship Scheme Agreements in ECC 8, which are located at western end of the route segment and are crossed by the ECC as it passes Cragmire Lane and Common Road/Double Bank, as shown on Figure 25.2.8, Volume 2, Chapter 25 (document reference 6.2.25). This level of scheme is considered to be of medium sensitivity.

#### *Outdoor Recreational Sites*

158. There are no areas of outdoor recreational land that have been identified within ECC 8.

#### *Ecological Designations*

159. No ecological designations have been identified in ECC 8.

#### *Walkers, Cyclists and Horse Riders*

160. There are no named PRoWs, footpaths, bridleways or cycle routes identified in ECC 8.

#### *Access/Common Land*

161. No areas of access or common land have been identified in ECC 8.

#### *Greenspace*

162. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 8.

## Utilities

163. As per Figure 25.4.8, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 8:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
  - Electric - low voltage (overhead);
- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

164. Utilities are considered to be of high sensitivity.

### 25.3.3.10 ECC 9: Ings Drove to Church End Lane

#### *Agricultural Land Classification*

165. The soils identified across ECC 9 are described as having a ‘*loamy and clayey*’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘*Loamy and clayey soils of coastal flats with naturally high groundwater*’.

166. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 9, as described in Table 25.12.

Table 25.12 ECC 9 Ings Drove to Church End Lane ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 9 Segment
Grade 1	34.7	51.47
Grade 2	32.71	48.53
<b>Total</b>	<b>67.41</b>	<b>100</b>

167. The ALC maps, shown on Figure 25.2.9, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 9 is comprised predominantly of Grade 1 and Grade 2. This is considered to range from ‘*excellent quality agricultural land*’ to ‘*very good quality agricultural land*’ (Natural England, 2021).

168. As all of ECC 9 is mapped as either Grade 1 or Grade 2 agricultural land, which is BMV land, the sensitivity of the agricultural land use is determined to be high.

### *Agri-Environmental Schemes*

169. There were no agri-environmental schemes identified in ECC 9.

### *Outdoor Recreational Sites*

170. There are no areas of outdoor recreational land that have been identified within ECC 9.

### *Ecological Designations*

171. No ecological designations have been identified in ECC 9.

### *Walkers, Cyclists and Horse Riders*

172. There are no named PRoWs, footpaths, bridleways or cycle routes identified in ECC 9.

### *Access/Common Land*

173. No areas of access or common land have been identified in ECC 9.

### *Greenspace*

174. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 9.

### *Utilities*

175. As per Figure 25.4.9, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 9:

- Electricity utilities;
  - Electric – extra-high voltage (overhead);
  - Electric - high voltage (overhead);
- Gas utilities;
  - Gas – medium pressure (underground);
- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

176. Utilities are considered to be of high sensitivity.

### **25.3.3.11 ECC 10: Church End Lane to The Haven**

#### *Agricultural Land Classification*

177. The soils identified across ECC 10 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:



- *'Loamy and clayey soils of coastal flats with naturally high groundwater'*.

178. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 10, as described in Table 25.13.

Table 25.13 ECC 10 Church End Lane to The Haven ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 10 Segment
Grade 1	39.2	100
<b>Total</b>	<b>39.2</b>	<b>100</b>

179. The ALC maps, shown on Figure 25.2.10, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 10 is predominately Grade 1 land and is considered to be *'excellent quality agricultural land'* (Natural England, 2021).

180. Therefore, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

181. There were no agri-environmental schemes identified in ECC 10.

#### *Outdoor Recreational Sites*

182. This segment of the ECC is characterised by its extensive agricultural land use, with no areas of public recreation having been identified in ECC 10.

#### *Ecological Designations*

183. There are two Local Wildlife Sites associated with the Hobhole Drain identified on Figure 25.3.10, Volume 2, Chapter 25 (document reference 6.2.25), Hobhole Drain, Baker's Bridge South, and Hobhole Bank, which are considered to be low sensitivity.

184. Further south along ECC 10, there are there are two further designations on the northern bank of the River Haven, both overlapping and named Havenside. One of which is a Local Wildlife Site which is considered to be low sensitivity, and the other is a Local Nature Reserve, which is considered to be of medium sensitivity.

#### *Walkers, Cyclists and Horse Riders*

185. Figure 25.3.10, Volume 2, Chapter 25 (document reference 6.2.25) shows that there are two PRoWs that intersect the ECC which are associated with the Hobhole Drain (Fish/12/2 and Fish/11/5), as well as a further PRoW associated with the River Haven (Fish/13/11).

186. These are considered to be of low sensitivity.

#### *Access/Common Land*

187. No areas of access or common land have been identified in ECC 10.

#### *Greenspace*

188. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 10.

#### *Utilities*

189. As per Figure 25.4.10, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 10:

- Electricity utilities;
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
- Sewerage utilities;
  - Sewerage – foul sewer rising main (underground);
- Telecoms utilities;
  - Telecom (underground);
- Water utilities; and
  - Water – not specified (underground);
  - Water – potable water (underground);
- LCC Utilities:
  - Surface water drainage (underground).

190. Utilities are considered to be of high sensitivity.

#### 25.3.3.12 ECC 11: The Haven to Marsh Road

##### *Agricultural Land Classification*

191. The soils identified across ECC 11 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.

192. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 11, as described in Table 25.14.

Table 25.14 ECC 11 The Haven to Marsh Road ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 11 Segment
Grade 1	54.52	100
<b>Total</b>	<b>54.52</b>	<b>100</b>

193. The ALC maps, shown on Figure 25.2.11, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 11 is predominately Grade 1 and considered to be ‘excellent quality agricultural land’ (Natural England, 2021).

194. Therefore, the sensitivity of the agricultural land use is determined to be high.

##### *Agri-Environmental Schemes*

195. There were no agri-environmental schemes identified in ECC 11.

##### *Outdoor Recreational Sites*

196. The areas on the southern bank of the River Haven, illustrated on Figure 25.3.11, Volume 2, Chapter 25 (document reference 6.2.25), are open to public recreational use, including a car park and PRoWs.
197. The only identifiable, formal outdoor recreational site would be the River Haven itself and its banks. The River Haven is considered to be of high sensitivity.

#### *Ecological Designations*

198. No ecological designations have been identified in ECC 11.

#### *Walkers, Cyclists and Horse Riders*

199. In the northern end of ECC 11, Figure 25.3.11, Volume 2, Chapter 25 (document reference 6.2.25) shows that there is one PRoW associated with the River Haven (Wybe/8/5). There is a further PRoW to the southwest of the Haven (Wybe/2/4) and final PRoW which briefly enter the Order Limits in the southern end of ECC 11 (Kirt/877/1). These are each considered to be of local importance and low sensitivity.
200. The Macmillan Way is a 463km long distance footpath comprising local PRoWs (Long Distance Walkers Association, 2022). It intersects the ECC crossing the River Haven as the footpath follows the southwestern bank of the River Haven in this route segment. This route is considered to be of regional importance and medium sensitivity.
201. The ECC then passes over the Greenwich Meridian Trail south of the River Haven, at Wyberton Roads. This route is a 439km long distance footpath comprising predominately of PRoWs (Long Distance Walkers Association, 2009) and is considered to be of regional importance and medium sensitivity.

#### *Access/Common Land*

202. No areas of access or common land have been identified in ECC 11.

#### *Greenspace*

203. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 11.

#### *Utilities*

204. As per Figure 25.4.11, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 11:
- Electricity utilities;
    - Electric - high voltage (overhead);
    - Electric - low voltage (overhead);
  - Telecoms utilities; and
    - Telecom (underground);
  - Water utilities:
    - Water – not specified (underground); and

- Water – potable water (underground).

205. Utilities are considered to be of high sensitivity.

### 25.3.3.13 ECC 12: Marsh Road to Fosdyke Bridge *Agricultural Land Classification*

206. The soils identified in the majority of ECC 12 are described as having a ‘loamy and clayey’ texture and within the wider regional soilscape 21 classification (Cranfield University, 2024a), with the soils associated with the rivers described as having a ‘loamy’ texture (Cranfield University, 2024c), within the wider regional soilscape 1 classification.

207. Soilscape 21 and 1 classifications are defined, respectively, as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’; and
- ‘Loamy, saltmarsh soils’.

208. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 12, as described in Table 25.15.

Table 25.15 ECC 12 Marsh Road to Fosdyke Bridge ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 12 Segment
Grade 1	43.75	100
<b>Total</b>	<b>43.75</b>	<b>100</b>

209. The ALC maps, shown on Figure 25.2.12, Volume 2, Chapter 25 (document reference 6.2.25), indicate that agricultural land within ECC 12 is predominately Grade 1 and is considered to be ‘excellent quality agricultural land’ (Natural England, 2021).

210. Therefore, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

211. There were no agri-environmental schemes identified in ECC 12.

#### *Outdoor Recreational Sites*

212. As this segment of the ECC is predominately made up of agricultural land, there is little outdoor public recreational land within the area, and none within ECC 12 have been identified in Figure 25.3.12, Volume 2, Chapter 25 (document reference 6.2.25).

#### *Ecological Designations*

213. No ecological designations have been identified in ECC 12.

#### *Walkers, Cyclists and Horse Riders*

214. There are three PRoWs in ECC 12 mapped on Figure 25.3.12, Volume 2, Chapter 25 (document reference 6.2.25), with the northern most located at Kirton Drain (Kirt/1/5), followed by the another intersecting the Order Limits east of the town of Fosdyke (Fosd/8/1). A final PRoW is located south of the River Welland, intersecting the compound and access route (Fosd/7/1). These are each considered to be of local importance and low sensitivity.
215. As well as the PRoWs, a National Cycle Network (NCN) Route is also located within ECC 12, which travels along a parallel path to PRoW route Fosd/8/1. This segment is the National Cycle Route 1 (NCR 1) and is an on-road cycleway which follows Wash Road in a southeast to northwest direction, where it is then crossed by the ECC near Pullover Lane (Sustrans, 2024).
216. NCR 1 spans the length of the UK, running from Dover to the Highlands, as well as joining Eurovelo 12, which connects NCR 1 with Norway via several European nations (Eurovelo, 2024). NCR 1 is, therefore, considered to be of national importance and high sensitivity.
217. The ECC also crosses over the Greenwich Meridian Trail at Kirton Drain, as well as to the east of Kirkton Drain where it is overlapped by a proposed temporary access track as the Trail joins Clough Lane (Long Distance Walkers Association, 2009). To the south in the Trail passes through another proposed temporary access track as it crosses over Thompsons Lane, a further proposed temporary access track at the joining of Cravens Lane and Pot Lane, and again as the ECC passes over the Sea Bank. This route is considered to be of regional importance and medium sensitivity.

#### *Access/Common Land*

218. No areas of access or common land have been identified in ECC 12.

#### *Greenspace*

219. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 12.

#### *Utilities*

220. As per Figure 25.4.12, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 12:
- Electricity utilities;
    - Electric - high voltage (underground);
    - Electric - high voltage (overhead);
    - Electric - low voltage (overhead);
  - Telecoms utilities; and
    - Telecom (overhead);
    - Telecom (underground);
  - Water utilities:
    - Water – potable water (underground).

221. Utilities are considered to be of high sensitivity.

#### 25.3.3.14 ECC 13: Fosdyke Bridge to Surfleet Marsh OnSS/Marsh Drove *Agricultural Land Classification*

222. The soils identified across ECC 13 are described as having a ‘loamy and clayey’ texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- ‘Loamy and clayey soils of coastal flats with naturally high groundwater’.

223. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 13, as described in Table 25.16.

Table 25.16 ECC 13 Fosdyke Bridge to Surfleet Marsh OnSS/Marsh Drove ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 13 Segment
Grade 1	102.32	100
<b>Total</b>	<b>102.32</b>	<b>100</b>

224. The ALC maps, shown on Figure 25.2.13, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 13 is predominately Grade 1 land, which is considered to be ‘*excellent quality agricultural land*’ (Natural England, 2021).

225. Therefore, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

226. There were no agri-environmental schemes identified in ECC 13.

#### *Outdoor Recreational Sites*

227. There are no areas of outdoor recreational land identified in ECC 13.

#### *Ecological Designations*

228. One Local Wildlife Site has been identified within ECC 13, the Risegate Eau, which is shown on Figure 25.3.13, Volume 2, Chapter 25 (document reference 6.2.25). The Risegate Eau Local Wildlife Site is considered to be of local importance and low sensitivity.

#### *Walkers, Cyclists and Horse Riders*

229. Four PRoWs have been identified within ECC 13, shown on Figure 25.3.13, Volume 2, Chapter 25 (document reference 6.2.25). The easternmost of which follows Smeeton Lane (Fosd/2/2), with the remaining three following the River Welland (Fosd/2/1, Fosd/3/1 and Alga/9/1). These are considered to be of low sensitivity.

230. The Macmillan Way follows the northern bank of the River Welland in this route segment, intersecting the ECC as it passes over the River Welland (Long Distance Walkers Association, 2022). This route is considered to be of regional importance and medium sensitivity.

#### *Access/Common Land*

231. No areas of access or common land have been identified in ECC 13.

#### *Greenspace*

232. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 13.

#### *Utilities*

233. As per Figure 25.4.13, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 13:

- Electricity utilities;
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
  - Electric - low voltage (underground);
  - Electric - not specified (overhead);
- Gas utilities;
  - Gas – not specified (underground);
- Telecoms utilities;
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities; and
  - Water – not specified (underground);
  - Water – potable water (underground);
- LCC Utilities:
  - Cable (underground); and
  - Surface water drainage (underground).

234. Utilities are considered to be of high sensitivity.

#### 25.3.3.15 ECC 14: Surfleet Marsh OnSS/Marsh Drove to the Connection Area *Agricultural Land Classification*

235. The soils identified across ECC 14 are described as having a '*loamy and clayey*' texture (Cranfield University, 2024a), within the wider regional soilscape 21 classification defined as:

- '*Loamy and clayey soils of coastal flats with naturally high groundwater*'.

236. The Natural England provisional ALC maps have been used to classify the agricultural land use across ECC 14, as described in Table 25.17.

Table 25.17 ECC 14 Surfleet Marsh OnSS/Marsh Drove to the Connection Area ALC Grades

ALC Grade	Total Area (ha)	% of the ECC 14 Segment
Grade 1	177.68	100
<b>Total</b>	<b>177.68</b>	<b>100</b>

237. The ALC maps, shown on Figure 25.2.14, Volume 2, Chapter 25 (document reference 6.2.25), indicate that ECC 14 is predominately Grade 1 land and is considered to be ‘*excellent quality agricultural land*’ (Natural England, 2021).

238. Therefore, the sensitivity of the agricultural land use is determined to be high.

#### *Agri-Environmental Schemes*

239. There were no agri-environmental schemes identified in ECC 14.

#### *Outdoor Recreational Sites*

240. ECC 14 is primarily characterised by its agricultural land use and has few areas of public recreation land. The River Welland is identified as a potential outdoor site which could be used for recreation, shown on Figure 25.3.14, Volume 2, Chapter 25 (document reference 6.2.25). The River Welland is a major river, which is considered to be of high sensitivity.

#### *Ecological Designations*

241. Figure 25.3.14, Volume 2, Chapter 25 (document reference 6.2.25) shows one final Local Wildlife Site within ECC 14, Surfleet Bank, which is associated with the River Welland and is considered to be a low sensitivity receptor.

#### *Walkers, Cyclists and Horse Riders*

242. On the banks of the River Welland five PRoWs, beginning west of Fosdyke Bridge, have been identified on Figure 25.3.14, Volume 2, Chapter 25 (document reference 6.2.25) (Fosd/6/1, Alga/10/1, Surf/8/1, Surf/8/2, and Wstn/6/2).

243. To the southwest of the River Welland there are a further three PRoWs, which enter the Order Limits (Surf/9/1, Wstn/4/1 and Wstn/7/1). Each of the PRoWs are considered to be of local importance and low sensitivity.

244. The Greenwich Meridian Trail, south of the River Welland, passes through an area of proposed temporary access tracks, associated with the proposed temporary construction compound east of the A17 (Long Distance Walkers Association, 2009). This route is considered to be of regional importance and medium sensitivity.

245. The same area of proposed temporary access tracks also briefly overlaps an off-road segment of the NCR 1 as it travels in a north-south direction (Sustrans, 2024). This cycle route is also considered to be of national importance and high sensitivity.

#### *Access/Common Land*

246. No areas of access or common land have been identified in ECC 14.

#### *Greenspace*

247. There have been no Village Greens, Doorstep Greens, Millenium Greens, Country Parks, National Parks or Registered Parks and Gardens identified in ECC 14.



### *Utilities*

248. As per Figure 25.4.14, Volume 2, Chapter 25 (document reference 6.2.25), the following utilities have been identified in ECC 14:

- Electricity utilities;
  - Electric - high voltage (underground);
  - Electric - high voltage (overhead);
  - Electric - low voltage (underground);
  - Electric - low voltage (overhead);
  - Electric - not specified (overhead);
- Gas utilities;
  - Gas – national high pressure (underground);
- Pipeline utilities;
  - Pipeline (underground);
- Telecoms utilities; and
  - Telecom (overhead);
  - Telecom (underground);
- Water utilities:
  - Water – potable water (underground).

249. Utilities are considered to be of high sensitivity.

#### **25.3.4 Future Baseline**

250. As the majority of the land is in agricultural use, the baseline land use environment is unlikely to experience change in the absence of the Project for the majority of the route owing to its importance as high-quality agricultural land. Change to agricultural land may come from changes of temperature impacting the soil quality or crops grown, as a result of climate change.

251. The application for the siting of up to 62 static caravans in the ECC 3: Marsh Lane to A158 – Skegness Road (Ref: S/023/02392/21) may also commence and become developed over the lifetime of the Project.

252. The coastal areas may also receive change from climate change effects, with rising sea levels potentially leading to increased flooding, as would the areas located around rivers and larger drains.

## 25.4 Basis of Assessment

### 25.4.1 Scope of the Assessment

#### 25.4.1.1 Impacts Scoped In for Assessment

253. The following impacts have been scoped into this assessment:

- Construction:
  - Impact 1: Agricultural Productivity;
  - Impact 2: Agricultural Land Holdings;
  - Impact 3: Outdoor Recreational Sites;
  - Impact 4: Ecological Designations;
  - Impact 5: Long Distance Routes and Public Rights of Way;
  - Impact 6: Agri-Environmental Schemes;
  - Impact 7: Utilities;
  - Impact 8: Access/Common Land;
  - Impact 9: Greenspace; and
  - Impact 10: Coastal Use.
- Operation and Maintenance:
  - Impact 1: Permanent Loss of Agricultural Land; and
  - Impact 2: ECC Soil Heating.
- Cumulative Impact Assessment:
  - Impact 1: Part 1 - Cumulative Loss of Agricultural Land within the OnSS Area (Local Scale); and
  - Impact 1: Part 2 - Cumulative Loss of Agricultural Land within Lincolnshire (County Scale).
- Decommissioning:
  - The decommissioning process for the onshore elements of the Project has not been determined, therefore a maximum design scenario with respect to land use has been assumed (section 25.4.2). The decommissioning impacts are expected to be no worse than those found during the construction phase.

### 25.4.1.2 Impacts Scoped Out of Assessment

254. A number of impacts were scoped out of the assessment in line with feedback provided in the Scoping Opinion (the Planning Inspectorate, 2022), and following Section 42 responses and further consultation through the EPP. The assessment's scope is based on the receiving environment and the parameters of the Project (see Chapter 3 (document reference 6.1.3)), the expected scale of impact and the potential for a pathway for an effect to occur on the environment e.g., land use receptors.
255. The following impacts have been scoped out of the assessment:
- Construction:
    - Impact 1: Highways Infrastructure; and
    - Impact 2: Transboundary Land Use Effects.
  - Operation and maintenance:
    - Impact 1: Agricultural Productivity;
    - Impact 2: Agricultural Land Holdings;
    - Impact 3: Outdoor Recreational Sites;
    - Impact 4: Ecological Designations;
    - Impact 5: Long Distance Routes and Public Rights of Way;
    - Impact 6: Agri-Environmental Schemes;
    - Impact 7: Utilities;
    - Impact 8: Access/Common Land;
    - Impact 9: Greenspace; and
    - Impact 10: Coastal Use.
256. Further to the above, impacts on agricultural drainage are only assessed in Chapter 23 (document reference 6.1.23). This has been done for the avoidance of double-counting on the particular impact, in response to comments made in the Scoping Opinion (the Planning Inspectorate, 2022).
257. Through the strategic routing of the ECC and site selection process of the landfall and OnSS location(s), areas which are considered to be purely tourism land have not been identified beyond that of a single approved planning application for up to 62 static caravans. As this also included fishing lakes, it has been included within Impact 3: Outdoor Recreational Sites, and has been referenced accordingly.
258. In addition to this, as no receptors had been identified within the study area baseline, two further impacts have been scoped out of the assessment. These receptors are:
- Historical Sites; and
  - Planning Allocations.

## 25.4.2 Realistic Worst Case Scenario

259. The final design of the Project will be confirmed through detailed engineering design studies that will be undertaken post-consent to enable the commencement of construction. To provide a precautionary but robust impact assessment at this stage of the development process, realistic WCSs have been defined in terms of the potential effects that may arise. This approach to EIA, referred to as the Rochdale Envelope, is common practice for developments of this nature, as set out in the Planning Inspectorate Advice Note Nine (NIP, 2018). The Rochdale Envelope for a project outlines the realistic WCS for each individual impact, so that it can be safely assumed that all lesser options will have less impact. Further details are provided in Volume 1, Chapter 5: EIA Methodology (document reference 6.1.5).
260. Table 25.18 identifies the Maximum Design Scenario (MDS) in environmental terms, defined by the Project design envelope.
261. The MDS is outlined in Chapter 3 Project Description (document reference 6.1.3) and the following parameters are supported by the following figure that can be found in ES Volume 2:
- Figure 3.4 Indicative Onshore Infrastructure (document reference 6.2.3)
    - *This figure outlines the indicative infrastructure layers as well as associated IDs that have been assigned to each infrastructure element for reference throughout this chapter and the ES. Where an ID is relevant to this figure it is presented in square brackets e.g. [PCC-1].*

Table 25.18 Maximum design scenario for land use for the Project alone

Potential Effect	Maximum Design Scenario Assessed	Justification
<b>Construction</b>		
<p><b>Landfall</b></p> <ul style="list-style-type: none"> <li>▪ Impact 3: Outdoor Recreational Sites;</li> <li>▪ Impact 4: Ecological Designations;</li> <li>▪ Impact 5: Long Distance Routes and Public Rights of Way;</li> <li>▪ Impact 6: Agri-Environmental Schemes;</li> <li>▪ Impact 7: Utilities;</li> <li>▪ Impact 8: Access/Common Land; and</li> <li>▪ Impact 9: Coastal Use.</li> </ul>	<p>Horizontal Directional Drilling (HDD) for up to six ducts will be used from landfall to cross the coastal flood defence line.</p> <p><b>Temporary Construction Compounds</b></p> <ul style="list-style-type: none"> <li>▪ A landfall Temporary Construction Compound known as the Landfall Compound [PCC-1] of 70,000m<sup>2</sup> located to the west of Roman Bank and comprising up to six Transition Joint Bays (TJBs) each with a maximum area of 207m<sup>2</sup> and total footprint of 1,242m<sup>2</sup>.</li> <li>▪ A temporary Duct Storage Compound [SCC-2] (40,000m<sup>2</sup>), where in the event of a pushdown installation (Chapter 3: Project Description), the ducts for the landfall installation will be assembled and stored.</li> </ul> <p><b>Temporary Access</b></p> <ul style="list-style-type: none"> <li>▪ A bellmouth will be constructed and temporary access for the purpose of constructing a 4m high noise bund will be located between the Landfall Compound. Following construction of the noise bund (which is seasonally constrained) the construction access to the Landfall Compound will be utilising the haul road from the A52 Hogsthorpe Compound [PCC-1], this compound, the haul road to the Landfall Compound and the Landfall Compound itself will be retained for 51-months.</li> </ul>	<p>The MDS represents the maximum number of cables and area of land disturbance anticipated at landfall. This is inclusive of the areas where the trenchless techniques avoid impacting receptors, as well as those areas where the temporary compounds or TJBs will have a direct impact on receptors.</p>
<p><b>Onshore ECC and 400kV Cable Corridor</b></p>	<ul style="list-style-type: none"> <li>▪ For the assessment presented in this chapter, the onshore ECC represents a temporary construction corridor width of</li> </ul>	<p>The MDS includes the maximum corridor widths during construction, within</p>

Potential Effect	Maximum Design Scenario Assessed	Justification
<ul style="list-style-type: none"> <li>▪ Impact 1: Agricultural Productivity;</li> <li>▪ Impact 2: Agricultural Land Holdings;</li> <li>▪ Impact 3: Outdoor Recreational Sites;</li> <li>▪ Impact 4: Ecological Designations;</li> <li>▪ Impact 5: Long Distance Routes and Public Rights of Way;</li> <li>▪ Impact 6: Agri-Environmental Schemes;</li> <li>▪ Impact 7: Utilities;</li> <li>▪ Impact 8: Access/Common Land;</li> <li>▪ Impact 9: Greenspace; and</li> <li>▪ Impact 10: Coastal Use.</li> </ul>	<p>approximately 80m and 70km in length. Cables will be installed directly or in ducts, with installation undertaken in sections.</p> <ul style="list-style-type: none"> <li>▪ The indicative length of the 400kV cable corridor is 4km, with a typical working width of 60m.</li> <li>▪ The cables will be installed in one trench per circuit (typically, maximum of four trenches for up to four circuits<sup>1</sup>), with each trench up to 5m wide at the surface and up to 3m deep.</li> </ul> <p><b>Haul road (within the Onshore ECC &amp; 400kV cable corridor)</b></p> <ul style="list-style-type: none"> <li>▪ The haul road will be installed in a sectionalised approach and will be approximately 6.8m in width (and up to 9m at passing places). The haul road will extend the full length of the onshore ECC and 400kV Cable Corridor, except where the Project has committed to not constructing haul roads (such as at trenchless crossings).</li> <li>▪ The haul road would remain for the entire construction programme, however, where practicable, will be reinstated.</li> </ul> <p><b>Temporary Construction Compounds</b></p> <ul style="list-style-type: none"> <li>▪ One A52 Hogsthorpe Primary Construction Compound (PCC) [PCC-3] with a maximum footprint of 7,500m<sup>2</sup> and will be retained for up to 51-months.</li> <li>▪ 6 additional PCCs along the onshore ECC and 1 along the 400kV Cable Corridor. Their combined maximum footprint is 110,000m<sup>2</sup> and are retained for up to 36-months.</li> </ul>	<p>which the final cable route will be located, and represents the greatest area of land disturbance.</p> <p>The maximum number of cable trenches and cable depth has been used, indicating the greatest installation width and depth that identified receptors could be impacted.</p> <p>The maximum construction footprint area has been used for the haul road and each of the temporary construction compounds. This is representative of the greatest area which could be impacted.</p> <p>The maximum temporal scale of the impacts has been used and represents the</p>

<sup>1</sup> At major trenchless crossings, more ducts may be required, and the cable circuits would be bundled accordingly (i.e. reducing the number of export cables per circuit)

Potential Effect	Maximum Design Scenario Assessed	Justification
	<ul style="list-style-type: none"> <li>▪ 19 Secondary Construction Compounds (SCCs) along the ECC and one along the 400kV Cable Corridor. Their combined maximum footprint is 235,000m<sup>2</sup> and are retained for up to 24-months.</li> <li>▪ 324 Cable Installation Compounds (CICs) along the onshore ECC and 400kV Cable Corridor. Their combined maximum footprint is 1,724,000m<sup>2</sup> and are retained for up to six-months.</li> </ul> <p><b>Joint Bays and Link Boxes</b></p> <ul style="list-style-type: none"> <li>▪ 700 joint bays buried below ground with a combined total area of 163,800m<sup>2</sup> (680 ECC and 20 400kV Cable Corridor).</li> <li>▪ 700 link boxes with a combined total area of 12,600m<sup>2</sup> (680 ECC and 20 400kV Cable Corridor).</li> <li>▪ Much of this is reinstated, with the link box manhole covers being the only permanent infrastructure, which is described in the operational phase MDS.</li> </ul> <p><b>Duration</b></p> <p>The majority of the construction of the onshore ECC and 400kV Cable Corridor is expected to last up to 42-months, however elements will take an additional 9-months, leading to an MDS of 51-months. Following construction of a noise bund (which is seasonally constrained) the construction access to the Landfall Compound will be the haul road from the A52 Hogsthorpe Compound [PCC-1], this compound, the haul road to the Landfall Compound and the Landfall Compound itself will be retained for 51-months.</p>	<p>greatest length of time that each receptor would be impacted.</p>
<p><b>OnSS</b></p> <ul style="list-style-type: none"> <li>▪ Impact 1: Agricultural Productivity;</li> </ul>	<p>The construction of this OnSS will commence at the start of the construction phase, but the permanent loss of land has been assessed in</p>	<p>Disturbance to existing land uses will result from the maximum construction</p>

Potential Effect	Maximum Design Scenario Assessed	Justification
<ul style="list-style-type: none"> <li>▪ Impact 2: Agricultural Land Holdings;</li> <li>▪ Impact 3: Outdoor Recreational Sites;</li> <li>▪ Impact 4: Ecological Designations;</li> <li>▪ Impact 5: Long Distance Routes and Public Rights of Way;</li> <li>▪ Impact 6: Agri-Environmental Schemes;</li> <li>▪ Impact 7: Utilities;</li> <li>▪ Impact 8: Access/Common Land;</li> <li>▪ Impact 9: Greenspace; and</li> <li>▪ Impact 10: Coastal Use.</li> </ul>	<p>the operational phase. The construction phase of the assessment focuses on temporary losses of land.</p> <p><b>Temporary Construction Compounds</b></p> <ul style="list-style-type: none"> <li>▪ An OnSS Primary Construction Compound (OnSS PCC) [PCC-29], with a maximum footprint of 40,000m<sup>2</sup>.</li> <li>▪ The majority of the PCC-29 will be retained for up to 36-months. Within the footprint of PCC-29, 5,400m<sup>2</sup> area will be retained for an additional 15-months for the commissioning compound.</li> <li>▪ The OnSS Security &amp; Logistics Compound [PCC-30] would have a maximum footprint of 2,400m<sup>2</sup> and retained for up to 36-months.</li> </ul> <p>Maximum OnSS construction duration, inclusive of the temporary commissioning compound, is 51-months.</p>	<p>footprint, therefore, an AIS substation footprint has been assumed.</p> <p>Associated infrastructure, such as drainage, access requirements, and onsite landscaping, would constitute a further impact to the usage of the land and, therefore, has been included within the MDS.</p>
<b>Operation and Maintenance</b>		
<p><b>ECC and 400kV Cable Corridor</b></p> <p>Impact 1: Permanent Loss of Agricultural Land</p> <p>Impact 2: ECC Soil Heating</p>	<p>Cables to remain buried underground throughout operation. Expected routine maintenance at link box locations.</p> <ul style="list-style-type: none"> <li>▪ Permanent ECC corridor area 4,200,000m<sup>2</sup> and 400kV 366,400m<sup>2</sup> (4,566,400m<sup>2</sup> combined).</li> <li>▪ Cable burial depth up to 3m, with a minimum burial depth of 1.2m (although, if required for engineering, a minimum burial depth of 0.9m can be utilised).</li> <li>▪ Trench maximum depth of stabilised backfill 1.5m.</li> </ul>	<p>No further land would be lost or disturbed through the operation of the ECC, beyond the negligible impacts of routine maintenance. The MDS is representative to the maximum area of land</p>



Potential Effect	Maximum Design Scenario Assessed	Justification
	<ul style="list-style-type: none"> <li>▪ The cables will be backfilled using a stabilised material that ensures a consistent structural and thermal environment, such as cement bound sand (CBS).</li> <li>▪ Maximum number of 700 link boxes, with a maximum distance of 2km between each.</li> <li>▪ Link boxes will require manhole-type covers to allow access for regular maintenance and fault-finding purposes. They may include above ground demarcation which may include fencing and marker posts.</li> <li>▪ Each link box manhole cover would comprise 4m<sup>2</sup> (1.5m x 2.5m), with a combined maximum total area of 2,800m<sup>2</sup>.</li> </ul>	<p>lost, which is the maximum area of land impacted.</p>
<p><b>OnSS</b> Impact 1: Permanent Loss of Agricultural Land</p>	<p>Routine maintenance of the OnSS required maximum of once per week and is otherwise unmanned.</p> <ul style="list-style-type: none"> <li>▪ A permanent access road from Surfleet Bank into the OnSS will be up to 8m wide and designed to provide access throughout the operational life of the substation.</li> <li>▪ OnSS remains as above ground infrastructure throughout operation.</li> <li>▪ Maximum OnSS footprint (AIS) is 144,000m<sup>2</sup>.</li> <li>▪ The maximum footprint of the onsite landscaping strips is 102,745m<sup>2</sup>.</li> <li>▪ The offsite landscaping strips would be located in surrounding fields, following existing boundaries, therefore, not contributing to the permanent loss of land.</li> <li>▪ The maximum permanent footprint of OnSS including associated infrastructure (such as drainage, access requirements, onsite landscaping) is 261,500m<sup>2</sup>.</li> </ul>	<p>The MDS for total area of permanent land lost at the OnSS is inclusive of the associated infrastructure. Without further detailed information, the larger AIS footprint is assessed as the MDS.</p>

Potential Effect	Maximum Design Scenario Assessed	Justification
Decommissioning		
<p><b>ECC, 400kV Cable Corridor, OnSS and TJBs</b></p>	<p>The decommissioning process for the onshore elements of the Project has not been determined, therefore a WCS with respect to Land Use has been assumed.</p> <p>The permanent onshore elements of the Project including onshore export cables, 400kV cables, permanent accesses, TJBs and OnSS would be removed.</p> <p>Removal of cable through installed ducts would require less intrusive ground works, comparatively with the construction phase.</p> <p>Any final decommissioning methodology will adhere to industry good practice, rules and regulations at the time of decommissioning.</p>	<p>The onshore export cable removed through ducts, resulting in less intrusive excavation works than the construction phase and increases the likelihood of some land uses continuing throughout the decommissioning process.</p> <p>Removal of all infrastructure represents greatest disturbance.</p>

## 25.5 Embedded Mitigation

262. Mitigation measures that were identified and adopted as part of the evolution of the Project design (embedded into the Project design) and that are relevant to land use are listed in Table 25.19. General mitigation measures, which would apply to all parts of the Project, are set out first. Thereafter, mitigation measures that would apply specifically to land use issues associated with the landfall, onshore corridor cable and substation, are described separately.

Table 25.19 Embedded mitigation relating to land use

Project phase		Mitigation measures embedded into the project design
<b>General</b>		
Site Selection	<p>As described in section 25.2.5 the Project has undergone an iterative site selection process which has involved environmental and engineering considerations in collaboration with feedback obtained through consultation. Throughout the design process, the Project has minimised the permanent loss of land as far as practicable, alongside measures embedded to reinstate the temporarily impacted land to its original use, following the completion of the construction works.</p> <p>The adoption of the alternatively proposed route, north of the A52, impacted less Grade 1 agricultural land than the originally proposed route (south of the A52). For further details, see Chapter 4 (document reference 6.1.4) and the Consultation Report (document reference 5.1).</p>	
Project Design	<p>The onshore ECC and the construction site haul roads have been designed to minimise land take and to avoid, where possible, impacts on key areas of sensitivity.</p>	
Agricultural Drainage	<p>The Project has appointed local drainage contractor to ensure the pre- and post-construction drainage schemes are designed in a harmonic way with the current drainage systems.</p>	
<b>Construction</b>		
Development of a Code of Construction Practice (CoCP)	<p>Development of good practice management measures during construction has been outlined in an Outline Code of Construction Practice (Outline CoCP) (document reference 8.1), which has been submitted alongside the ES. A final CoCP will be produced by the contractor, which will be in accordance with the Outline CoCP (document reference 8.1) and will be implemented to control a safe and appropriate method of working for the construction of the Project.</p> <p>This will include the working hours, the construction and mitigation methods to be employed, management measures, commitments and working standards proposed to be adopted and implemented throughout the construction process. The final CoCP would apply to all onshore construction activities and work areas.</p>	
Pollution Prevention	<p>Compliance with the final Pollution Prevention and Emergency Incident Response Plan (PPEIRP) to be drafted in line with the Outline PPEIRP and will be in place prior to the start of site preparation work.</p>	

Project phase	Mitigation measures embedded into the project design
	The Outline PPEIRP is included within the Outline CoCP and submitted as part of this DCO Application.
Handling of Soils	<p>All works will be carried out in accordance with BS5930: 1999 (The Code of Practice for Site Investigations) and BS10175:2001 (Investigation of Potentially Contaminated Sites):</p> <ul style="list-style-type: none"> <li>▪ All construction work will be undertaken in accordance with the Outline Soil Management Plan (SMP) (document reference 8.1.3), as part of the Outline CoCP submitted with this DCO Application; <ul style="list-style-type: none"> <li>○ The SMP is intended to ensure that, following construction, agricultural land quality and productivity will be returned as quickly as possible to pre-construction levels;</li> <li>○ The SMP includes a commitment to the Project commissioning a Soil Clerk of Works and soil testing across the Order Limits;</li> </ul> </li> <li>▪ All soil handling, placing, compaction and management will be undertaken in accordance with good practice (DEFRA, 2009), and include for mitigation against the spread of weed, invasive and non-native species, and the spread of disease;</li> <li>▪ Topsoil and subsoil will be stored in separate stockpiles in line with DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298 or the latest relevant available guidance.</li> <li>▪ Any suspected or confirmed contaminated soils will be appropriately separated, contained and tested before removal (if required).</li> <li>▪ Use of the waste hierarchy to determine the most sustainable option for all surplus soils that are generated on site;</li> <li>▪ Re-instatement of topsoil;</li> <li>▪ Inclusion of excavated subsoil that is suitable for use within the design as landscaping material at the converter substation to minimise offsite movements;</li> <li>▪ Segregation of waste subsoil for offsite management from subsoil suitable for reinstatement on site;</li> <li>▪ Identification of suitable local schemes that are suitable for offsite reuse or recycling of surplus subsoil;</li> <li>▪ Any wastes found to be hazardous, will be stockpiled or stored separately from any non- hazardous stockpiles. Appropriate action will be taken in accordance with the Hazardous Waste (England and Wales) Regulations 2005; and</li> <li>▪ Use of a Site Waste Management Plan to monitor wastes arisings and ensure adherence to duty of care and wastes legislation on site and also the anticipation of sustainable waste management practices by maximising waste prevention, reuse and recycling for material destined for offsite waste management. This will actively discourage sending waste to landfill.</li> </ul>
Crossing Points	Where required and practicable crossing points will be agreed between the contractor and landowner to access the retained areas of the farm that are

Project phase	Mitigation measures embedded into the project design
	<p>still farmable. These crossing points will be mutually agreed between parties to minimise disruption on the landholdings not withstanding practical and safety matters associated with installing the cables. The Project will then work to agree suitable crossing point(s) to allow the parties to access the severed land where required and practicable, as included in the Outline CoCP (document reference 8.1).</p> <p>A suitable method of mitigation would be crossing points, which would be used to allow livestock and vehicles can cross the working width of the ECC, so that agricultural operations can continue.</p> <p>This will be agreed directly between the contractor and with relevant stakeholders and landowners and will form part of the contractor's CoCP requirements.</p>
Reinstatement	<p>Land which has been temporarily impacted (i.e., no permanent above-ground infrastructure presence post-construction) will be reinstated to its previous use/quality, so far as reasonably practicable. To minimise the impact to soil/agricultural quality these would be restored to previous levels following good practice as per the Outline CoCP (document reference 8.1) submitted as part of this DCO Application.</p>
Biodiversity and Invasive Non-Native Species Method Statement	<p>All construction works will be undertaken in accordance with the Non-Native Invasive Species Management Plan as part of the Outline Landscape and Ecological Strategy (document reference 8.10) prepared to identify and reduce the spread of potential biosecurity impacts.</p> <p>A Biodiversity and Invasive Non-Native Species Method Statement will also be prepared which will provide an outline of the proposed methods to reduce the spread of invasive species, non-native species, weeds and disease.</p>
Disturbance to Public Rights of Way (PRoWs)	<p>The Outline Public Access Management Plan (PAMP) (document reference 8.1.7) sets out the approach that will be taken to manage public access to the PRoW affected during construction. Disturbance to PRoWs will be temporary where reasonably practicable and PRoWs will be reinstated as soon as reasonably practical. The Outline PAMP includes details of temporary diversions, closures, gated crossings and signage to be provided during construction.</p>
Surface Water Drainage Strategy	<p>An Outline Surface Water and Drainage Strategy (document reference 8.1.5) has been provided as part of the Outline CoCP (document reference 8.1) which includes measures to ensure the runoff rates to the surrounding water environment are managed at rates agreed with the relevant regulatory authority.</p> <p>The final Drainage Strategy will be developed in line with the latest relevant drainage guidance notes in consultation with the Environment Agency, Lead Local Flood Authority and relevant Internal Drainage Board as appropriate.</p>
Ponds	<p>All known ponds identified during the route planning and site selection process have been avoided, excluding a man-made lake which will be avoided through trenchless techniques. During construction any newly identified ponds will be avoided through, for example, micro-siting of the onshore</p>

Project phase		Mitigation measures embedded into the project design	
		export cable or the use of trenchless construction techniques, to prevent direct interaction with the ponds in question, where reasonably practicable.	
Working Areas		All temporary and permanent working areas of the onshore ECC, compounds and the OnSS site will be clearly demarcated and secured with appropriate fencing.	
Crossing of Utilities		<p>Volume 3, Appendix 3.3: Onshore Crossing Schedule (document reference 6.3.3.3) contains a list of all linear features to be crossed by the ECC, including underground and overhead utilities.</p> <p>Where potential interaction between the Project and other infrastructure has been identified, the owners and operators of the infrastructure are being consulted. The Project will endeavour to put standard legal agreements in place, for example crossing or proximity agreements, in the form of protective provisions.</p>	
Cross Contamination		<p>Avoidance of cross contamination between non-organic and organic fields; measures are detailed in the CoCP (document reference 8.1) submitted as part of this DCO Application.</p> <p>These will be outlined in the final Soil Management Plan submitted as part of the final CoCP. Non-intrusive works will be carried out in accordance with a protocol agreed with the relevant landowners.</p>	
Sequential Construction		<p>The main construction activities of trenchless work, cable trenching, installation and jointing would move progressively along the corridor. To allow for the maximum flexibility in completing the works in a safe and efficient manner, the main activities are completed sequentially at any location prior to the next activity commencing.</p> <p>On completion of the main activities, the corridor would be prepared to be reinstated and handed back to the landowner. Such activities would include the removal of the haul road, installation of further drainage, reinstatement of topsoil and removal of temporary fencing and access arrangements.</p> <p>As such, whilst the completion of the overall cable installation works can be expected to take up to 51-months in total, land areas will be reinstated and provided back to the landowner as soon as reasonably practicable.</p>	
Operation and Maintenance			
Joint Bays		Joint Bays will be completely buried, with the land above reinstated except where access will be required from ground level, e.g. via link box chambers and manholes.	
Onshore Export Corridor (ECC)		The Onshore ECC and 400kV cable corridor will be completely buried underground for their entire length. No overhead pylons will be installed as part of the consented works for the Project. Cables will be buried at a depth that will enable agricultural operations to continue unaffected following reinstatement. Cables will be buried at a depth that will enable agricultural operations to continue unaffected. The depth of the topsoil strip is to be determined on a location-by-location basis using the pre-construction soil survey data and communicated via the SMP.	

Project phase		Mitigation measures embedded into the project design
Site Reinstatement		Temporary construction compounds will be removed, and sites restored including agricultural land drainage to their original condition when the compound is no longer required.
<b>Decommissioning</b>		
General		Decommissioning practices will incorporate similar measures to that of the construction phase.
Decommissioning Plan		Development of, and adherence to, a decommissioning plan submitted as part of this DCO. This would include measures for the protection of the soils and minimising the disturbance of agricultural, and other, land uses, based on guidance that will be appropriate at the time of decommissioning.

## 25.6 Assessment Methodology

263. This section sets out the scope and methodology for the land use assessment. There are no published guidelines or criteria for assessing and evaluating effects on land use within the context of an EIA. Where relevant, in particular with regard to agricultural land, the proposed assessment is based on a methodology derived from the Institute of Environmental Management and Assessment (IEMA) guidance. The methodology sets out a list of criteria for evaluating the environmental effects and is outlined in Chapter 5 (document reference 6.1.5). Where guidance does not exist, the assessment has been based on experience of similar projects and professional experience.
264. The approach for determining the significance of effects is based on the evaluation of the sensitivity of a receptor and the magnitude of defined impacts on that receptor. This assessment is undertaken using defined criteria and uses professional judgement to assign values of sensitivity and impact magnitude. The predicted effect on a receptor is then used to determine the need for further mitigation measures.
265. The criteria used to define receptor sensitivity and impact magnitude are based on those used in the Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human Health methodology (National Highways, 2020) and A New Perspective on Land and Soil in Environmental Impact Assessment (IEMA, 2022), which is described in more detail in Chapter 5 (document reference 6.1.5).
266. The ‘Population and Human Health’ section of the DMRB is relevant to land use. It sets out five aspects to be used when assessing the impacts on land use:
- Private property and housing;
    - Considered through search for residential areas and homes within Order Limits;
  - Community land and assets
    - Considered through search for Ecological Designations, Access/Common Land, Greenspace, Historical Sites and Coastal Use within Order Limits;

- Development land and business;
  - Considered through search for Outdoor Recreational Sites and Planning Allocations within Order Limits;
- Agricultural land holdings; and
  - Considered through search for Agricultural Land Classification and Agri-Environmental Schemes within Order Limits;
- Walkers, cyclists, and horse-riders (WCH).
  - Considered through search for Walkers, Cyclists and Horse Riders within Order Limits.

267. The magnitude of impact upon land use is determined by defining the impact on the resource, as defined in the matrix presented at Table 25.20. This approach uses the term “beneficial” for an advantageous or positive impact on an environmental resource or receptor or “adverse”, for a detrimental or negative impact on an environmental resource or receptor.

Table 25.20 Impact magnitude definitions

Magnitude	Description/reason
Major	<p><b>Adverse</b></p> <p>Permanent, irreversible loss of agricultural land (including permanent sealing or land quality downgrading) or loss of soil-related features of agricultural land, as advised by other topic specialists in the EIA team, over an area of more than 20ha.</p> <p>Permanent or irreversible loss of designated site.</p> <p>Loss of resource and/or quality and integrity of resource.</p> <p>Severe damage to key characteristics, features or elements. e.g. direct acquisition and demolition of buildings and direct development on receptor.</p> <p>Introduction of complete severance of linear recreational routes with no accessibility provision.</p>
	<p><b>Beneficial</b></p> <p>Potential for permanent improvement due to remediation or restoration over an area of more than 20ha.</p> <p>Removal of complete severance of linear recreational routes with full accessibility provision.</p>
Moderate	<p><b>Adverse</b></p> <p>Permanent, irreversible loss of agricultural land or loss of soil-related features of agricultural land, as advised by other topic specialists in the EIA team, over an area of between 5 and 20ha.</p> <p>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.</p> <p>Introduction of severe severance of linear recreational routes with limited accessibility provision.</p>



Magnitude	Description/reason
	<p><b>Beneficial</b></p> <p>Potential for improvement of resource quality due to remediation or restoration over an area of between 5 and 20ha.</p> <p>Removal of severe severance of linear recreational routes with moderate accessibility provision.</p>
Minor	<p><b>Adverse</b></p> <p>Permanent, irreversible loss of agricultural land or loss of soil-related features of agricultural land, as advised by other topic specialists in the EIA team, over an area of less than 5ha.</p> <p>Temporary, reversible loss of an area of agricultural land or soil-related features of agricultural land, as advised by other topic specialists in the EIA team.</p> <p>A discernible change in attributes, quality or vulnerability of property, businesses, community assets or agricultural holdings.</p> <p>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.</p> <p>Introduction of severance of linear recreational routes with adequate accessibility provision.</p> <hr/> <p><b>Beneficial</b></p> <p>Potential for permanent improvement of resource quality due to remediation or restoration over an area of less than 5ha.</p> <p>Temporary improvement to one or more of a receptor’s key characteristics, functions or features due to remediation or restoration or off-site improvement.</p> <p>Temporary gain in soil-related features of agricultural land, as advised by other topic specialists in the EIA team.</p> <p>Removal of severance of linear recreational routes with adequate accessibility provision.</p>
Negligible	<p><b>Adverse</b></p> <p>No discernible loss of agricultural land or reduction of soil-related features of agricultural land, that restrict current or proposed land use.</p> <p>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.</p> <p>Very minor introduction of severance with ample accessibility provision.</p> <hr/> <p><b>Beneficial</b></p> <p>No discernible improvement of agricultural land or soil-related features of agricultural land.</p> <p>Very minor removal of severance with ample accessibility provision.</p>
No change	<p>No loss or alteration of characteristics, features or elements.</p> <p>No observable adverse or beneficial impacts.</p>

268. The criteria for sensitivity used in this chapter are outlined on Table 25.21. Whilst a sensitivity category of ‘very high’ is proposed as a potential category for sensitivity criteria within the DMRB methodology, for the purposes of the assessment of land use effects, the categories within the range of ‘high’ to ‘negligible’ are considered to appropriately cover the potential receptors as the difference between ‘very high’ and ‘high’ in the case of land use would be negligible, the mitigations needed remaining unchanged and the limited number of unique land use receptors within the study area. Where a receptor could be placed within more than one category of sensitivity, professional judgement has been applied to determine which category is appropriate.

Table 25.21 Sensitivity/importance of the environment

Receptor sensitivity/importance	Definition
High	<p>High importance and rarity, national level and limited potential for substitution.</p> <p>This sensitivity would include:</p> <ul style="list-style-type: none"> <li>▪ Agricultural Land Classification (ALC) Classes 1, 2 and 3a - Excellent to Good Quality agricultural land;</li> <li>▪ Agricultural land holdings growing sensitive crops that cannot be grown elsewhere and are very soil-specific;</li> <li>▪ Highly sensitive, essential infrastructure such as hospitals and schools;</li> <li>▪ World Heritage Sites or National Parks;</li> <li>▪ UK designated sites (Sites of Special Scientific Interest (SSSI));</li> <li>▪ Nationally important visitor attractions;</li> <li>▪ Long distance routes and trails which are nationally promoted (King Charles III England Coast Path, National Cycle Route 1);</li> <li>▪ Overhead and underground utilities such as transmission lines, electricity cables, gas transmission network pipelines, water mains, and telecoms infrastructure;</li> <li>▪ Existing housing and land allocated for housing covering 1-5ha and/or 30-150 homes; and/or</li> <li>▪ Existing employment sites (excluding agriculture) and land allocated for employment covering 1-5ha.</li> </ul>
Medium	<p>Medium importance and rarity, district or regional level, limited potential for substitution.</p> <p>This sensitivity would include:</p> <ul style="list-style-type: none"> <li>▪ ALC Class 3b Moderate Land capable of producing a moderate range of crops;</li> <li>▪ Smaller agricultural land holdings;</li> <li>▪ Higher Level Environmental Stewardship Scheme Agreements;</li> <li>▪ Countryside Stewardship Scheme Agreements;</li> <li>▪ Organic Entry Level plus Higher Level Environmental Stewardship Scheme Agreements;</li> </ul>

Receptor sensitivity/importance	Definition
	<ul style="list-style-type: none"> <li>▪ Protected or valued non-statutory designated sites (e.g. Local Nature Reserves (LNR), Sites of Nature Conservation Importance, Country Parks);</li> <li>▪ Regionally important visitor attractions and recreational land;</li> <li>▪ Regionally promoted trails and long distance routes;</li> <li>▪ Existing housing and land allocated for housing covering &lt;1ha and/or &lt;30 houses; and/or</li> <li>▪ Existing employment sites (excluding agriculture) and land allocated for employment covering &lt;1ha.</li> </ul>
Low	<p>Low importance and rarity, local or district level.</p> <p>This sensitivity would include:</p> <ul style="list-style-type: none"> <li>▪ ALC Classes 4 and 5 Poor to Very Poor Quality– Improved grassland and rough grazing or Urban land;</li> <li>▪ Larger agricultural land holdings;</li> <li>▪ Entry Level Stewardship Scheme Agreements;</li> <li>▪ Non-designated notable or priority habitats (Local Wildlife Sites (LWS));</li> <li>▪ Locally important visitor attractions and recreational land;</li> <li>▪ Locally promoted trails and PRoWs;</li> <li>▪ Access and common land;</li> <li>▪ Commonplace woodland or watercourses;</li> <li>▪ Proposed development on unallocated sites providing housing with planning permission/in the planning process; and/or</li> <li>▪ Proposed development on unallocated sites providing employment with planning permission/in the planning process.</li> </ul>
Negligible	<p>Very low importance and rarity, local level.</p> <p>As for low sensitivity, but with only indirect, tenuous, and unproven links between sources of impact and identified receptors.</p> <p>This sensitivity would include:</p> <ul style="list-style-type: none"> <li>▪ Non-agricultural, non-farmed or unused land;</li> <li>▪ Non-designated land; and/or</li> <li>▪ Undeveloped land.</li> </ul>

269. Assessment of the significance of potential effects is described in Table 25.22.

Table 25.22 Matrix to determine effect significance

		Magnitude of impact			
		<i>Negligible</i>	<i>Minor</i>	<i>Moderate</i>	<i>Major</i>
Sensitivity of receptor	<i>Negligible</i>	Negligible (Not significant)	Negligible (Not significant)	Minor (Not significant)	Minor (Not significant)
	<i>Low</i>	Negligible (Not significant)	Minor (Not significant)	Minor (Not significant)	Moderate (Significant)
	<i>Medium</i>	Minor (Not significant)	Minor (Not significant)	Moderate (Significant)	Major (Significant)
	<i>High</i>	Minor (Not significant)	Moderate (Significant)	Major (Significant)	Major (Significant)

270. Where an effect is classified as major, this is considered to represent a ‘significant effect’ in terms of the EIA Regulations. Where an effect is classified as moderate, this may be considered to represent a ‘significant effect’ but should always be subject to professional judgement and interpretation, particularly where the sensitivity or impact magnitude levels are not clear or are borderline between categories or the impact is intermittent.

271. The level of effects matrix shown in Table 25.22, therefore, provides a guide to decision making but is not a substitute for professional judgement. Impacts and effects can be beneficial, neutral or adverse and these would be specified where applicable. It should be noted that significant effects need not be unacceptable or irreversible.

### 25.6.1 Assumptions and Limitations

272. The assessment is based on publicly and commercially available data, as well as additional information supplied by stakeholders during the scoping and consultation stages. Data availability is, therefore, limited to the level of information readily accessible from these bodies.

273. Overall, a moderate to high level of certainty has been applied to the assessment for the onshore ECC and OnSS. The available information used to complete the assessment is considered sufficient to establish a comprehensive baseline within the Project onshore land use study area.

274. Whilst this assessment has considered the impact on agriculture and agricultural operations, data regarding individual agricultural land holdings has not been possible to obtain. Knowledge of a whole landholding of interest, whether they own or rent land elsewhere, would be a burden on landowners due to commercial sensitivities and there is no way of verifying if the details are correct.

275. The Applicant has only acquired His Majesty's (HM) Land Registry titles intersected by the boundary used for the PEIR, on which statutory consultation was taken. This does not in all cases represent the full extent of a landowners holding as, for example, titles can be split during sales or for tax holding purposes. Additional land can also be acquired and added to a holding under a separate HM Land Registry title number.
276. Furthermore, landowners can occupy other land as a tenant which, in most cases, is not registered against an HM Land Registry title and whilst a tenant interest within the Order Limits is relevant at this point of time, it is subject to change up to the exercising of any rights.
277. There is, therefore, no way for the Applicant to provide information unless it is volunteered by a landowner. In the case of this land use assessment, for the data to be of value landowners throughout the route would need to volunteer this information. However, it is considered that the land use assessment does not require full details of agricultural land holdings within the Project to undertake the assessment. The temporary and permanent loss of land for agriculture and the severance impacts on operations can still be assessed and where necessary mitigated without this commercial information.
278. The MDS identified in Table 25.18 has been selected as it is considered likely to have the potential to result in the greatest impact on an identified receptor or receptor group. This scenario has been selected from the details provided in the onshore Project Description (see Chapter 3 (document reference 6.1.3)). Effects of greater significance are not predicted to arise should any alternative development scenario to that assessed here be taken forward in the final design scheme, within the design envelope set out.

## 25.7 Impact Assessment

### 25.7.1 Construction

279. This section presents the assessment of effects arising from the construction phase of the Project on land use.
280. A description of the potential effect on land use receptors caused by each identified impact is given below. In general, the effects arising from the construction of the onshore elements of the Project are temporary, as they only occur during the construction period.

#### 25.7.1.1 Impact 1: Agricultural Productivity

281. There will be a reduction in the agricultural productivity in areas of agricultural land throughout the footprint of the construction works due to the direct impact of removing land used as productive agricultural land.
282. The majority of the construction footprint would be within areas currently associated with agricultural production. The footprint of the construction compounds, onshore ECC, 400kV Cable Corridor, construction accesses would all contribute to the temporary loss of land for agriculture. The loss of agricultural land as a result of the construction, and operational presence, of the OnSS is considered to be a permanent impact, and is assessed as such within the Operation and Maintenance phase of the assessment, in section 25.7.2.

283. The Project has been designed to minimise the impacts on agricultural land by aligning the ECC route along field boundaries to avoid fracturing land parcels and excess land take. The Project has also chosen the route north of the A52, which has led to the avoidance of higher graded agricultural land.
284. Construction will involve the temporary stripping and storage of topsoil and subsoil to excavate trenches to the required width and depth to install cable circuits. Following the completion of the works, the working width will be fully reinstated as practicably possible to its former condition in accordance with the SMP (document reference 8.1.3) as part of the CoCP (document reference 8.1). Full reinstatement will allow normal farming practices to continue post construction, returning to prior levels of productivity. This will be achieved through the implementation of good practice measures for the handling, storage and reinstatement of soils as set out in the SMP and CoCP.
285. The duration of the impact is also temporary, with a maximum construction period of up to 51 months, however, it is noted that impact to individual fields would be far shorter. Following reinstatement, impacted areas of arable land return to their prior level of production upon the onset of the subsequent sowing season.
286. Further mitigation measures would come through agreements between the Project and affected parties. This could include an agreement of commercial terms, as well as an appropriate period of time after notifying farmers and landowners of the construction works before commencing the works to allow for the adaptation of farming practices.
287. When considering the implementation of the measures outlined within the SMP, the routing of the ECC to avoid higher graded land, the minimisation of unnecessary land take or segregation, and agreements with affected parties, the magnitude of impact on agricultural productivity as a result of temporary disruption to current farming operations is anticipated to be minor adverse.
288. Regarding the quality of the agricultural land, this was assessed to be of high sensitivity, due to being made up of entirely BMV land. The direct impact on agricultural land due to the Project is categorised as moderate magnitude. A minor magnitude impact on a high sensitivity receptor would result in a moderate effect. Whilst Table 25.22 indicates that a moderate effect is significant, the approach also enables a degree of professional judgement to be made. The effect is temporary and will last no longer than 51-months for the entirety of the Project's construction, however, it is expected that impacts on individual fields would be shorter due to the implementation of a phased approach to constructing the ECC. The effect applies only to the construction works with all other surrounding agricultural land remaining intact as BMV.
289. The soils of the land impacted will have been handled using the measures outlined in Table 25.19 to allow them to maintain the same quality, which will be reinstated following construction. As the land will be reinstated to the previous quality following the construction phase, it is expected that the following sowing season would return to the same levels of agricultural productivity. When considering the temporary nature of the impact and the reinstatement of the soils, therefore the agricultural land itself, to the same standard, the moderate effect will result in a **minor (not significant)** level of effect, in EIA terms.

### 25.7.1.2 Impact 2: Agricultural Land Holdings

290. Potential Impacts on the Agricultural Market as a result of the temporary cessation of farming practices are assessed in Chapter 29 (document reference 6.1.29).
291. For land that is impacted by the Project during construction, the demarcation of the working width of the onshore ECC and 400kV cable corridor will require existing farming practices to be temporarily suspended or modified during the construction phase. Since access to individual fields would be determined during detailed design and construction planning (post consent), at this stage the exact area of land or specific areas that would be isolated or inaccessible is not confirmed.
292. Where required and practicable, access would be arranged between the contractor and the landowner to access severed land. with this mechanism being set out in the Outline CoCP (document reference 8.1).
293. The Project has consulted and will continue to consult with affected parties who have agricultural operations that will be affected. This will include seeking to avoid the best quality areas, if practical, and also where possible aligning construction activities so that critical agricultural operations can be undertaken. For example, allowing sufficient notice before construction works need to commence and agreeing suitable crossing points to maintain access to segregated areas of fields where necessary.
294. Where loss of productive agricultural land directly impacts the operation of an agricultural holding, such as the operations ability to meet any crop production obligations leading to loss of income, the relevant landowner or tenant will be compensated appropriately for the temporary disruption to their agricultural business. Separate agreements will be agreed with landowners to compensate for any loss of agricultural production once the detailed design and direct crop production impacts are fully defined. This will include a suite of measures including finding alternative land for crops, purchasing crops to enable contract obligations to be met or compensating for loss of any income or contracts.
295. When considering the temporary, reversible nature of the impact, the magnitude of the impact on agricultural land holdings is considered to be minor adverse.
296. The sensitivity of the farm holdings as receptors varies depending on the scale of the holding; larger agricultural land holdings are considered to be more able to accommodate the disruption through a greater availability of alternative options, whilst also being able to continue their operations in fields which are not impacted by the Project (lowering their sensitivity). Conversely, smaller holdings are considered to be less adaptable to change with fewer alternatives to utilise during the construction phase, resulting in a higher sensitivity.
297. Where larger agricultural holdings are impacted, these are considered to represent receptors of low sensitivity, whilst smaller agricultural holdings are considered to be receptors of medium sensitivity.

298. When determining the overall scale of the agricultural land holdings impacted by the Project, the data regarding the full extent of an agricultural holding is not publicly available and would need to be volunteered by the landowner. As this can often be commercially sensitive, the scale of each land holding within the study area has not been obtained.
299. Therefore, a maximum design scenario has been taken using the highest sensitivity available, medium, based on the assumption that the study area consists of smaller agricultural land holdings.
300. The construction will result in a temporary impact on the agricultural holdings, which will then be reinstated to their previous level of agricultural productivity following construction. The impacted parties would also be notified and compensated by the Project for the disruption and loss of earnings and/or the provision of alternative crops. The impact magnitude will therefore be minor.
301. It is therefore predicted that the temporary duration of the construction phase impacts on agricultural holdings would result in a level of effect that is **minor (not significant)** in EIA terms.

#### 25.7.1.3 Impact 3: Outdoor Recreational Land

302. Outdoor recreational land has been detailed throughout section 25.3.3; the following receptors have been identified within the land use study area:
- Rivers; and
  - Tourism sites.
303. The potential impacts on these receptors due to construction of the cable route would be the severance of the land which impacts the amenity, the disruption of normal activities of the land, the impedance of access to the recreational usage of the land, restrictions to the usage of the land and temporary change in the land's current use.
304. The ECC crosses several major rivers, including the Steeping River, River Haven and River Welland. These rivers are considered to be of high sensitivity, owing to their importance as a land use feature, as well as presenting opportunities for a range of activities including recreational boating, leisure sailing and angling. The magnitude of the impact on all rivers within the study area is considered to be no change due to the proposed use of trenchless techniques. This results in a **negligible** level of effect which is **not significant**, in EIA terms.
305. Although no tourist land has been identified within the boundaries of the land use study area, planning permission for up to 62 static caravans was recently granted within the ECC 3: Marsh Lane to A158 Skegness Road route segment and would be within the centre of the ECC. This site is, under a WCS, considered to be of medium sensitivity. The magnitude of the impact of the construction of the ECC on the land use of the caravan site is considered to be no change due to the adoption of trenchless techniques. The Project have amended their land rights in relation to this land plot to allow for the construction of this. This would result in a **negligible** level of effect which is **not significant**, in EIA terms.



#### 25.7.1.4 Impact 4: Ecological Designations

306. A review of the baseline ecological designations within the study area in section 25.3.3 has identified eight sites, seven of which are Local Wildlife Sites and are considered low sensitivity, and the remaining site is a Local Nature Reserve, which is considered to be of medium sensitivity:

- Anderby Marsh LWS;
- Anderby Creek Sand Dunes LWS;
- Hobhole Drain, Baker's Bridge South LWS;
- Hobhole Bank LWS;
- Havenside LWS;
- Risegate Eau LWS;
- Surfleet Bank LWS; and
- Havenside LNR.

307. The potential impacts on these receptors due to construction of the Project would be the temporary restriction of access, disruption and/or closure of the land which reduces the amenity, the disruption of normal activities of the land, the impedance of access to the recreational usage of the land, restrictions to the usage of the land and temporary change in the land's current use.

308. Each of the ecological designations identified are also associated with watercourses; the Project commits to crossing waterbodies using trenchless techniques, with the trenchless compounds located outside of the ecological sites for both the entry and exit pits. As such, the impacts of the construction would avoid the ecological sites, resulting in no change.

309. The resultant level of effect is, therefore, **negligible**, which is **not significant**, in EIA terms.

#### 25.7.1.5 Impact 5: Long Distance Routes and Public Rights of Way

310. The evidence presented within the baseline analysis (see section 25.3.3) indicates that there are several onshore receptors that may be affected by onshore construction activity, including the King Charles III England Coast Path, which is crossed by the ECC near the landfall, the Macmillan Way associated with the rivers Haven and Welland, the Greenwich Meridian Trail utilising PRoWs, Reclassified National Cycle Route following local roads, and several local PRoWs which are located throughout the study area.

311. Land use impacts on these linear recreational routes could include the temporary severance and closure or diversion of the routes due to trenching and/or other construction activities. This would change the purpose of the land temporarily and reduce amenity for the users. The impacts on linear recreational routes and the users are considered further in, Chapter 27 (document reference 6.1.27) and Chapter 29 (document reference 6.1.29).

312. The embedded mitigation includes for the provision of an Outline PAMP (document 8.1.9), shown in Table 25.19, which would be implemented in areas along the Order Limits where potential sources of recreational routes would be impacted. The Outline PAMP would give clear instructions, information and timings of any impacts to the usage of the route, as well as allow for the planning of any potential closures or diversions.
313. The King Charles III England Coast Path is considered to be a high sensitivity receptor owing to its national promotion and ability to draw in visitors to the area. Its location at the landfall site is advantageous due to the usage of trenchless techniques which would result in a no change, as direct impacts, closures or changes in use would be avoided. This leads to a **negligible** level of effect which is **not significant**, in EIA terms.
314. The Macmillan Way is a 463km long distance footpath, comprising of local PRoWs, and is considered a medium sensitivity receptor. It initially crosses the route of the ECC as it follows the southwestern bank of the River Haven, whereby impacts would be avoided through the usage of trenchless techniques, resulting in no change. The Macmillan Way then re-enters the study area as it follows the northern bank of the River Welland, where it would be directly impacted by the construction of a temporary access track. As the route comprises PRoWs, it would be subject to the same mitigations implemented in the PAMP; when considering this, as well as the temporary nature of the impacts and the small 1.8km section of the 463km footpath impacted, the magnitude of impact is considered to be minor adverse, resulting in a level of effect that is **minor (not significant)** in EIA terms.
315. Similarly, the Greenwich Meridian Trail is a 439km long distance footpath which predominately comprises PRoWs and is considered a medium sensitivity receptor. It initially crosses the ECC south of the River Haven, at Wyberton Roads, as well as further south as the ECC passes over the Sea Bank. For both of these locations any impacts are avoided through the usage of trenchless techniques, resulting in no change.
316. The Greenwich Meridian Trail also enters the study area at Clough Lane, where it is overlapped by a proposed temporary access track. To the south in the Trail passes through two further proposed temporary access tracks as it crosses over Thompsons Lane and at the joining of Cravens Lane and Pot Lane, as shown on Figure 25.3.11, Volume 2, Chapter 25 (document reference 6.2.25). The final overlap between the Trail and a temporary access track is south of the River Welland, with the temporary access track associated with the proposed temporary construction compound east of the A17.
317. As the route comprises predominately of local PRoWs, it would be subject to the same mitigations implemented in the PAMP. When considering this, as well as the temporary nature of the impacts and the small sections of the 439km footpath impacted, the magnitude of impact is considered to be minor adverse, resulting in a level of effect that is **minor (not significant)** in EIA terms.

318. NCR 1 initially intersects the Order Limits in ECC 12: Marsh Road to Fosdyke Bridge route segment as it follows the public highway on Wash Road and is crossed by the ECC. The ECC would bypass this segment of Wash Road through the usage of trenchless techniques, resulting in no change to receptor due there being no direct impacts to the usage of the road, and therefore, NCR 1. As NCR 1 is considered to be a high sensitivity receptor, a **negligible** level of effect is predicted for this impact, which is **not significant** in EIA terms.
319. NCR 1 then re-enters the study area in ECC 14: Surfleet Marsh OnSS/Marsh Drove to the Connection Area route segment, where it would be overlapped by a temporary secondary construction compound south of the River Welland and east of the A17.
320. Although unlikely due to the NCR 1 following an adjacent pathway, the Maximum Design Envelope could impact this receptor, in which case the PAMP would mitigate any effects. When considering these measures, along with the temporary nature of the disturbance, the ability for the continuation or diversion of the usage of the route, the localised nature of the impact and the potential for no overlap to occur, the magnitude of the impact is assessed to be negligible. As NCR 1 is a high sensitivity receptor, the resultant level of effect is considered to be **minor (not significant)** in EIA terms.
321. The local PRoWs are considered together due to their extent over a large area. These are considered to be of local importance and low sensitivity. The proposed ECC crosses a number of PRoWs which could result in a direct impact, however, is mitigated through the implementation of and adherence to a PAMP. Of the 43 PRoWs identified in the Existing Baseline:
- None will be permanently closed;
  - Three will be temporarily diverted;
  - 13 will receive open, managed crossings; and
  - A further 13 will have open crossings.
322. Those which are temporarily diverted are:
- Hogs/58/2 (ECC 1), 0.85km north-west of Hogsthorpe, with a 20m diversion;
  - Hogs/48/1 (ECC 2), 1km south of Hogsthorpe, with an 80m diversion; and
  - Crof/276/3 (ECC 5), 1km north-east of Wainfleet All Saints, with a 282m diversion.
323. The final details for the management of each PRoW, including the specification of any temporary diversions or suggested alternative routes during construction works, will be agreed with LCC through consultation on the Final PAMP prior to commencement of the relevant stage of works.
324. Temporary works affecting PRoW and final reinstatement would be undertaken in line with BS5709:2018 British Standard for Gaps, Gates, and Stiles.
325. Accounting for this and the very localised and temporary nature of the impact combined with the implementation of the PAMP, the magnitude is considered to be minor adverse which results in a level of effect that is **minor (not significant)** in EIA terms.

### 25.7.1.6 Impact 6: Agri-Environmental Schemes

326. Impacts related to conservation and biodiversity would be assessed in Chapter 21 (document reference 6.1.21), whilst those related to any potential financial impacts as a result of a breach of any agreement would be assessed in Chapter 29 (document reference 6.1.29).
327. The impacts of construction activities on agri-environmental schemes would be similar to those of agricultural land, where there is the potential for a reduction in the agricultural productivity. In this case the Project could directly impact the effectiveness of sustainable farming methods and/or the success of conservation efforts, depending on the agreement in place for each particular scheme. The footprint of the mobilisation areas, temporary compounds associated with trenchless techniques, onshore ECC (trenching, haul road, soil storage) and JB's could all contribute to the temporary disruption to the normal workings of land under agri-environmental schemes.
328. Following the completion of the works, the working width will be fully reinstated as soon as practicably possible to its former condition in accordance with the good practice measures outlined within the SMP. The full reinstatement will allow a return to the previous working practices post construction. As with impacts on agricultural holdings, the Project will consult with those operating these schemes to minimise impacts. Measures will include crossing points so that any regular or essential maintenance work can be undertaken to sites potentially cut off by the construction activities.
329. Where impacts are identified, the relevant landowner will be compensated appropriately for the temporary disruption to their agri-environmental scheme. Additionally, if appropriate the Applicant will also support landowners with any necessary consultation with their Countryside Stewardship advisors so that the impacts of the Project and obligations to the agri-environmental schemes can be fully understood and met.
330. The Higher Level Environmental Stewardship Scheme Agreement located adjacent to Wolla Bank beach in the ECC 1: Landfall to A52 – Hogsthorpe route segment is considered to be of medium sensitivity and is noted as being bypassed through the usage of trenchless techniques, resulting in no change to the site. This is also the case for the Countryside Stewardship Scheme Agreement located south of Croft. Therefore, no change and a **negligible** level of effect is predicted, which is **not significant** in EIA terms.
331. There is another Countryside Stewardship Scheme Agreement located west of Patmans Lane, which is considered to be of medium sensitivity and is not bypassed by the use of trenchless techniques. When considering the mitigation described, the temporary and reversible impacts would result in a minor adverse magnitude impact, and a level of effect that is **minor (not significant)** in EIA terms.

332. The two Organic Entry Level plus Higher Level Environmental Stewardship Scheme Agreements located within the ECC 8: Broadgate to Ings Drove route segment would be temporarily impacted through the installation of the ECC, as well as being the locations of cable installation compounds. It is considered that temporary nature of the impact and the commitments to reinstating the land to its prior condition, and implementing an SMP, would result in a minor adverse magnitude of impact on this medium sensitivity receptor. The level of effect would, therefore, be **minor (not significant)** in EIA terms.
333. The remaining five agri-environmental schemes are all Entry Level Environmental Stewardship Scheme Agreements, which is the lowest level of Environmental Stewardship Scheme Agreements. These are considered to be of low sensitivity.
334. These land parcels would not be subject to avoidance through trenchless techniques, however, all construction activities would be undertaken in line with the mitigation measures described. This would result in a minor adverse magnitude of impact, and a level of effect that is **minor (not significant)** in EIA terms.

#### 25.7.1.7 Impact 7: Utilities

335. The impact of the Project on utilities during construction could occur as a result of the crossing, unearthing and/or disturbance of existing underground infrastructure. The mapping of the existing utilities shows that they are extensive throughout the study area.
336. Appendix 3.3 (document reference 6.3.3.3) contains a list of all linear features to be crossed by the ECC, including underground and overhead utilities. Where potential interaction between the Project and other infrastructure is identified, owners and operators will be consulted, and protective provisions have been included within the draft DCO submitted with this application.
337. Irrespective of the sensitivity of the utility crossings they would be undertaken in accordance with industry good practice. Protective Provisions are being agreed with utility owners. It is considered with these methods in place, **no impact** would occur.

#### 25.7.1.8 Impact 8: Access/Common Land

338. The potential impacts on these access/common land from the construction of the Project could be the severance of the land which reduces the amenity, the disruption of normal activities of the land, the impedance of access to the recreational usage of the land, restrictions to the usage of the land and temporary change in the land's current use.
339. The King Charles III England Coast Path 'coastal margin' was identified in the baseline review (see section 25.3) as being located seawards of the King Charles III England Coast Path at the landfall location.
340. Through the implementation of trenchless technology to pass beneath the intertidal area from a point seaward of MLWS to an exit pit located to the west of Roman Bank Road, impacts to the coastal margin would be avoided resulting in no change and a **negligible** level of effect, which **is not significant** in EIA terms, is expected to occur.

341. One area of registered common land has been identified in the baseline review (see section 25.3.3), Hallgate (Lindsey) CL108, which is considered to be a receptor of low sensitivity. Hallgate comprises a minor road and footpath and intersects the ECC as it follows the agricultural drains between Hall Road in the southeast and Church Lane to the northwest.
342. Impacts on Hallgate will also be avoided by the usage of trenchless techniques, resulting in no change and a **negligible** level of effect which is **not significant**, in EIA terms.

#### 25.7.1.9 Impact 9: Greenspace

343. There are no Village Greens, Doorstep Greens, Millenium Greens, National Parks or Registered Parks and Gardens within the land use study area. The Lincolnshire Coastal Country Park covers a large area from the landfall to the towns of Huttoft, Mumby and Hogsthorpe consisting predominately of agricultural land with the main attractions located along the coast, including walking routes and the beach.
344. This receptor would be impacted by the landfall construction, with the trenchless compound likely located within the Country Park resulting in a temporary localised change of land use for the construction period. This receptor's predominant land use is agriculture, rather than recreation, with its main recreational features being the King Charles III England Coast Path and PRowS, assessed in Impact 5, and Wolla Bank Beach, assessed in Impact 10; however, it is considered to be of regional importance and medium sensitivity, as per Table 25.21. The impact of the landfall and ECC construction would result in a change of use which is also visible and would continue southwards along the ECC. However, with the inclusion of embedded mitigation measures such as the usage of trenchless techniques, the CoCP, PAMP, SMP and the reinstatement of land, as set out in Table 25.19, the magnitude of this temporary and reversible impact is considered to be minor adverse. The resultant level of effect is considered to be **minor (not significant)** in EIA terms.

#### 25.7.1.10 Impact 10: Coastal Use

345. Wolla Bank Beach was determined to be of low sensitivity due to the availability of promoted beaches in Lincolnshire, the level of usage of nearby beaches and the lack of data regarding the quality of Wolla Bank Beach.
346. Impacts to the Wolla Bank Beach would be mitigated through the avoidance of direct impacts by the implementation of trenchless technology. This will allow the ECC to pass beneath the intertidal area from a point seaward of MLWS to a location onshore, landwards of the beach with a temporary construction compound situated on the western site of Roman Bank Road.
347. The avoidance of direct impacts to the beach would ensure that there is no change and, therefore, a **negligible** level of effect which is **not significant**, in EIA terms.

## 25.7.2 Operations and Maintenance

### 25.7.2.1 Impact 1: Loss of Agricultural Land

348. The physical above-ground presence that the Project would have onshore during the operation and maintenance phase is limited to the OnSS, permanent accesses and link box manhole covers, which will lead to the long-term loss of agricultural land for up to 35-years; whilst agricultural land could be regained to some extent following decommissioning, the likelihood and timing of this are uncertain.
349. This would be a localised impact restricted to the above ground onshore infrastructure, which includes the footprint of the OnSS and the smaller footprints of the link boxes along the onshore ECC and 400kV Cable Corridor. The quality of the agricultural land across the study area varies from ALC grade 1-3. A WCS assumes all Grade 3 has the potential to be Grade 3a, and will, therefore, be BMV soils. This results in the permanent agricultural land lost to the link boxes to be a high sensitivity receptor.
350. The entirety of the OnSS site is within Grade 1 agricultural land, therefore, the sensitivity of the receptor is also considered to be high. The OnSS must be located close to a grid connection point; in the case of the Project, the grid connection point has been indicated to be located in a plot of Grade 1 land within approximately 4km of the OnSS (the Connection Area – See Figure 25.2.13, Volume 2, Chapter 25 (document reference 6.2.25)). It was not possible to avoid the OnSS being on BMV due to the need to be close to the grid connection point.
351. The maximum OnSS is 14.4ha, which is representative of the OnSS technology option with the largest footprint, Air Insulated Switchgear (AIS). The final selection of substation type will be made at detailed design, therefore, at this stage a WCS of 14.4ha has been taken as the OnSS footprint. There is also a maximum of 700 link boxes to be located throughout the onshore ECC and 400kV Cable Corridor. Whilst their precise locations are not yet known, it is assumed that all will be on BMV agricultural land, and will result in a loss of that BMV agricultural land through the permanent presence of their manhole covers. The maximum area per link box manhole cover is 0.004ha, each comprising 4m x 4.5m which also includes demarcation (fences or posts). The total loss due to the link boxes is 0.28ha. Therefore, the combined total loss of agricultural land due to the OnSS and the link boxes would be 14.68ha.
352. The maximum permanent footprint of the OnSS, including associated infrastructure, such as drainage, access requirements and onsite landscaping, is 26.1ha. With the addition of the link boxes, the overall agricultural land lost to the Project is 26.38ha.
353. Any permanent restriction of agricultural activities as a result of the OnSS and/or link boxes will be discussed with affected landowners to minimise unnecessary impact on farming operations such as access restrictions or the fragmentation of fields. As appropriate landowners and tenants will be compensated by the Applicant. In addition, no changes are predicted once the cables are operational as they will remain below ground at a level which will not interfere with agricultural operations.

354. The individual impact of the link boxes is not considered to lead to a significant effect on agricultural holdings due to their small size, whereas the OnSS will have a larger effect due to the size of permanent loss. The Applicant has entered into negotiation with all landowners regarding permanent loss of land, including the OnSS site, and they will be fully compensated at above market value for the land.

355. As set out in the IEMA (2022) guidance, where an area of over 20ha of BMV land experiences permanent or irreversible loss, the magnitude of the impact is determined as major adverse. The IEMA guidance also acknowledges that it may not be possible to entirely mitigate the loss of agricultural land, however, the soils could potentially be used for mitigation elsewhere within the Project such as providing screening bunds to mitigate landscape and visual impacts. This would not mitigate the permanent loss of agricultural land, but it would provide a sustainable re-use of Grade 1 soils, where appropriate and feasible.

356. The resultant level of effect for the permanent loss of BMV agricultural land due to the combined effect of the OnSS and the link boxes is considered to be **major (significant)** in EIA terms.

#### County Level Context

357. When providing context for the impact at a county level, no publicly available data sources are available pertaining to the area of BMV land within a particular county, nor a proportional breakdown of the relevant ALC Grades. However, the most recent data available can be sourced from comparative DCO applications for three projects based within Lincolnshire from the past 12-months, as detailed on Table 25.23.

Table 25.23 ALC Grades within Lincolnshire

ALC Grade	Gate Burton Energy Park <sup>2</sup>		Springwell Solar Farm <sup>3</sup>		Heckington Fen Solar Park <sup>4</sup>	
	Area (ha)	Proportion (%)	Area (ha)	Proportion (%)	Area (ha)	Proportion (%)
1	82,600	14.6	380,000	71.2	82,600	14.6
2	203,600	36.0			203,600	36.0
3a	116,700	20.6			116,700	20.6
3b	155,900	27.5	N/A	N/A	155,900	27.5
4	7,400	1.3	N/A	N/A	7,400	1.3
5	0	0	N/A	N/A	0	0
Total	566,200	100	N/A	N/A	566,200	100

<sup>2</sup> Gate Burton Energy Park [EN010131], *Further Information on Agricultural Land*, Document Reference: 8.11, August 2023.

<sup>3</sup> Springwell Solar Farm [EN010149], *Volume 1 Chapter 10: Land, Soils and Groundwater*, Preliminary Environmental Information Report, December 2023.

<sup>4</sup> Heckington Fen Solar Park [EN010123], *Chapter 16 - Land Use and Agriculture*, Document Reference: 6.1.16, Revision 2, November 2023.



358. Table 25.23 shows that the data for Gate Burton and Heckington are identical, whilst Springwell did not split the data given for the area of BMV land impacted into the individual ALC grades. To provide an average, ALC Grades 1 – 3a (BMV land) from the Gate Burton and Heckington data have been combined individually to determine the volume of BMV land, 402,900ha each, and combined with the Springwell BMV data to provide an average estimate of there being approximately 395,266.67ha of BMV land within Lincolnshire, approximately 71.2% of the total agricultural land within the county.
359. Therefore, it can be estimated that the combined total permanent footprint of the Project (26.38ha) constitutes approximately 0.007% of the total available BMV land in Lincolnshire.
360. As the OnSS would be located upon Grade 1 agricultural land, a further comparison has been drawn utilising the available data for the area of Grade 1 land within Lincolnshire from Table 25.23. The Project would comprise approximately 0.03% of the total 82,600ha of Grade 1 land within Lincolnshire.
361. Potential Impacts on the Agricultural Market are assessed in Chapter 29 Socio-economics Characteristics (document reference 6.1.29).

#### 25.7.2.2 Impact 2: ECC Soil Heating

362. Thermal dissipation, the process of heat transferring from a hotter object to its surrounding cooler environment, is a natural loss of energy in electrical transmission infrastructure. There is the potential for the soils adjacent to the cable to undergo ‘soil heating’ which could have an adverse impact on agricultural productivity.
363. Thermal bedding such as cement bound sand (CBS) is often utilised as a stabilised backfill material. This has a low thermal resistance which allows it to conduct the heat produced during electricity transmission away from the underground cables.
364. The Project has committed to the use of thermal bedding along the entirety of the onshore ECC and 400kV cable corridor; the amount and type of the bedding required will be determined by the results of a cables study. The Project will undertake the cables study during the Front End Engineering Design (FEED) process which will utilise data from further Ground Investigation (GI) surveys. The surveys will be targeted to provide the required design information to establish the amount and type of thermal backfill required to maintain a negligible impact.
365. It is considered, therefore, that the above mitigation (as has been adopted by preceding projects of a similar specification) would ensure that the magnitude of the impact would be negligible, which would result in an effect that is **minor (not significant)** in EIA terms.

### 25.7.3 Decommissioning

366. Where decommissioning works are necessary, the impacts are expected to be broadly similar in character, albeit of a lesser scale, than those experienced during the construction phase. The WCS for the cables is that they are expected to be removed along with above-ground infrastructure. However, the removal of the cables via pulling them from ducts would lessen the impact on land use as it would reduce the number of land parcels required to undergo further intrusive works related to the removal of the cables. This negates the need to assess the impacts associated with the cable route for Impacts 1 to 10 (as set out in section 25.4) as it is expected that the impact would be lesser than those of the construction phase, lesser in scale and lesser in disturbance, which ultimately results in a **negligible** level of effect, which is not significant in EIA terms, leaving the impacts associated with the loss of agricultural land resulting from the permanent infrastructure.
367. However, built infrastructure associated with the onshore aspects of the Project, such as the OnSS, its ancillary infrastructure and link boxes, are expected to be removed during decommissioning. These would be very localised impacts temporarily disturbing the soils, relating to Impact 1: Agricultural Productivity of the construction phase and assessed in Chapter 23 (document reference 6.1.23). The land along the ECC would be reinstated if and where it has been impacted and, therefore, the level of effect of this short-term and temporary impact is expected to be negligible in the small areas of the ECC which may be affected. It is expected that the land used for the permanent terrestrial infrastructure would be also reinstated to its original usage as productive agricultural land in accordance with a decommissioning plan, which will be secured through the DCO and agreed with statutory authorities at the time of decommissioning, as well as a SMP.
368. Throughout the operational and construction phases, new and forthcoming legislation and policies would be acknowledged and adhered to, supporting, and guiding the decommissioning process relating to the above ground built infrastructure. Any new policies would be considered in the decommissioning plan.
369. The agricultural land (Impact 1: Agricultural Productivity) adjoining the OnSS and other infrastructure may be affected during decommissioning, for example, to obtain access for plant and stockpiling of materials. Although the agricultural land is of high sensitivity, the magnitude of the impact is considered to be negligible due to the temporary nature, potential changes in procedure, and potential improvements in technology resulting in a level of effect that is **minor (not significant)** in EIA terms.

## 25.8 Cumulative Effects Assessment

370. This cumulative effects assessment for land use has been undertaken in accordance with the methodology provided in Volume 3, Appendix 5.3: Onshore Cumulative Effects Assessment Approach (document reference 6.3.5.3).
371. The projects, plans and activities scoped in as relevant ‘other developments’ to the assessment of cumulative impacts to land use are based upon a screening exercise undertaken on an initial long list of reasonably foreseeable other developments located within the Project’s zone of influence; be it consented schemes not built out or schemes for which planning consent is actively being sought.
372. Each project, plan or activity has been considered and scoped in or out on the basis of effect-receptor pathway, data confidence and the temporal and spatial scales involved.
373. The determination of the short list of other developments is documented in Appendix 5.3 (document reference 6.3.5.3).
374. Typically, land use has very localised impacts, with the potential for cumulative effects also being localised and would be expected to occur when two or more developments have adjacent boundaries. However, developments throughout Lincolnshire have been considered in respect of the total cumulative loss of agricultural land within the county. A review of the potential for cumulative effects to arise, in respect of each of the impacts assessed in the Project-alone assessment, are listed in Table 25.24.

Table 25.24 Potential cumulative effects

Impact	Cumulative Impact	Justification
<b>Construction</b>		
Impact 1: Agricultural Productivity	No.	It is considered that the land temporarily impacted would be reinstated to its previous use. Cumulative impacts on agricultural productivity would have to occur at the same locations, at the same timings, and be necessarily temporary in nature. Permanent cumulative impacts to agricultural productivity would be assessed under Impact 1 of the Operations and Maintenance phase, which refers to permanent loss of agricultural land.
Impact 2: Agricultural Land Holdings	No.	It is considered that the land temporarily impacted would be reinstated to its previous use, with mitigation measures in place to maintain access where practicable. Cumulative impacts on agricultural land holdings would have to occur at the same locations, at the same timings, and be necessarily temporary in nature, as well as impacting the same or similar holdings. Permanent cumulative impacts to agricultural land holdings would be assessed under Impact 1 of the Operations and Maintenance phase, which refers to permanent loss of agricultural land.
Impact 3: Outdoor Recreational Sites	No.	For an impact to outdoor recreational land to occur, it must be directly impacted by the Project. Those which are directly impacted by the Project, would be within the Order Limits of the Project and would, therefore, not be expected to be in receipt of cumulative impacts to their relative land use by other developments.
Impact 4: Ecological Designations	No.	For an impact to the usage of ecological designations to occur, it must be directly impacted by the Project. The Project-alone assessment found that all ecological designations were bypassed through the usage of trenchless techniques, therefore, avoiding an impact. Any subsequent impact to ecological designations would be of the result of the other development alone.
Impact 5: Long Distance Routes and Public Rights of Way	No.	For an impact to linear recreational routes to occur, it must be directly impacted by the Project. Therefore, within the Order Limits. Those which are outwith the Order Limits of the Project would not be impacted by the Project, whilst those within the Order Limits are assessed as being solely impacted by the Project. It is not expected that any cumulative impacts on linear recreational routes by other developments would occur.

Impact	Cumulative Impact	Justification
Impact 6: Agri-Environmental Schemes	No.	It is considered that the land temporarily impacted would be reinstated to its previous use. Cumulative impacts on agri-environmental schemes would have to occur at the same locations, at the same timings, and be necessarily temporary in nature. The impacts upon agri-environmental schemes would be the responsibility of the respective landowner. Permanent cumulative impacts to agri-environmental schemes would be assessed under Impact 1 of the Operations and Maintenance phase, which refers to permanent loss of agricultural land.
Impact 7: Utilities	No.	Impacts to utilities would be subject to agreements between developers and the owners of the utilities. It is considered that these can only be individual impacts.
Impact 8: Access/Common Land	No.	For an impact to access/common land to occur, it must be directly impacted by the Project. Those which are directly impacted by the Project, would be within the Order Limits of the Project and would, therefore, not be expected to be in receipt of cumulative impacts to their relative land use by other developments.
Impact 9: Greenspace	No.	For an impact to greenspace to occur, it must be directly impacted by the Project. Those which are directly impacted by the Project, would be within the Order Limits of the Project and would, therefore, not be expected to be in receipt of cumulative impacts to their relative land use by other developments.
Impact 10: Coastal Use	No.	For an impact to coastal uses to occur, it must be directly impacted by the Project. Those which are directly impacted by the Project, would be within the Order Limits of the Project and would, therefore, not be expected to be in receipt of cumulative impacts to their relative land use by other developments.
<b>Operation and Maintenance</b>		
Impact 1: Permanent Loss of Agricultural Land	Yes.	Other developments, particularly those within the vicinity of the OnSS, have the potential to lead to a greater cumulative loss of agricultural land.
Impact 2: ECC Soil Heating	No.	It is considered that soil heating would be an impact that is singular to each development, with the close collocation of underground cables being necessary for an impact to arise. As this is not proposed, no cumulative impacts are expected to occur.

Impact	Cumulative Impact	Justification
Decommissioning		
Impact 1: Agricultural Productivity	No.	The impacts would be similar to those of the construction phase, albeit to a lesser extent due to the elements such as the cables being removed via ducts.

375. Of the other developments documented in Appendix 5.3 (document reference 6.3.5.3), those being built upon BMV agricultural land and, therefore, potentially resulting in a cumulative loss of BMV agricultural land, were scoped into the land use CEA.
376. The other developments which have been screened into the CEA for land use impacts are described in Table 25.25.

Table 25.25 Projects considered within the land use cumulative effects assessment

Development type	Project	Status	Data confidence assessment/phase	Tier
Electricity transmission infrastructure	National Grid Substation (NGSS) at Weston Marsh	No Application made, in early phase non-statutory consultation	Low data confidence – the NGSS information presented is for purposes of CEA only and is based on typical assumptions as there is currently no design data available. The indicative search area for the site is located to the south of the OnSS (the Connection Area) and the site is located entirely on the adjacent Grade 1 BMV land.	3
Proposed plant-based protein extraction facility and anaerobic digester plant	Naylor Farms	Application submitted and in consultation	Moderate data confidence – there is currently design data available, via the planning application, however, the outcome of the application, thus the final confirmation of the design, has not yet been approved. The site is located to the southwest of the OnSS and entirely on the adjacent Grade 1 BMV land.	3
Residential development	Gaysfield Road - 46 Dwellings	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Residential development	Gaysfield Road - 20 Affordable Dwellings	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Residential development	Puttock Gate – 11 Dwellings	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Residential development	West End – 89 Dwellings	Application submitted and in consultation	Moderate data confidence – there is currently design data available, via the planning application, however, the outcome of the application, thus the final confirmation of the design, has not yet been approved.	1
Solar Farm	Vicarage Drove 49 MW Solar	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1



Development type	Project	Status	Data confidence assessment/phase	Tier
Energy from Waste Facility	Boston Alternative Energy Facility (BAEF)	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Solar Farm	Heckington Fen Solar Park	Application submitted and awaiting decision.	Moderate data confidence – there is currently design data available, via the planning application, however, the outcome of the application, thus the final confirmation of the design, has not yet been approved.	1
Solar Farm	Low Farm Solar Farm - 49.9mw Solar Farm	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Solar Farm	Red House Farm - 48MW Solar	Application refused (21/02/2024). An appeal by the applicant is possible.	Moderate data confidence – there is currently design data available, via the planning application, however pending an appeal on the application decision it is potentially subject to further design amendments.	2
Solar Farm	Moulton Bulb Solar	Application Approved	High data confidence – the planning application has been approved based upon the design details submitted.	1
Solar Farm	Little Hale Drove - 49.9mw Solar Array	Application submitted and awaiting decision.	Moderate data confidence – there is currently design data available, via the planning application, however, the outcome of the application, thus the final confirmation of the design, has not yet been approved.	1

377. Table 25.24 The cumulative MDS for the land use CEA focused on the maximum footprint of the other developments, which will be indicative of the greatest potential loss of BMV agricultural land for each development, as outlined in Table 25.26.

Table 25.26 Cumulative MDS

Other Development	MDS	BMV (ha)	Grade 1 (ha)	Justification
National Grid Substation (NGSS) at Weston Marsh	The NGSS will be located within the indicative grid connection area. An assumption of the maximum footprint, based upon that of the OnSS, of 209,000m <sup>2</sup> or 20.9ha.	20.9	20.9	MDS for the total area of agricultural land potentially lost in the immediate vicinity of the OnSS.
Naylor Farms-Protein Extraction and Anaerobic Digester Plant	Naylor Farms located adjacent to the Project's Order Limits, as shown on planning application reference H17-1097-23. A maximum footprint of 143,000m <sup>2</sup> or 14.3ha, based upon the Design and Access Statement.	14.3	14.3	MDS for the total area of agricultural land potentially lost in the immediate vicinity of the OnSS.
Gaysfield Road - 46 Dwellings	Total footprint of 3.05ha. Grade 1 land.	3.05	3.05	MDS assumes total area will not be restored to agricultural land and will constitute a permanent loss.
Gaysfield Road - 20 Affordable Dwellings	Total footprint 0.97ha. Grade 1 land.	0.97	0.97	MDS assumes total area will not be restored to agricultural land and will constitute a permanent loss.
Puttock Gate – 11 Dwellings	Total footprint of 0.65ha.	0.65	0.65	MDS assumes total area will not be restored to agricultural land and will constitute a permanent loss.
West End – 89 Dwellings	Total footprint of 4.7ha. Located on Grade 3 land, assumed to be BMV.	4.7	0	MDS assumes total area will not be restored to agricultural land and will constitute a permanent loss.

Other Development	MDS	BMV (ha)	Grade 1 (ha)	Justification
Vicarage Drove 49 MW Solar	Total footprint of 80.46ha comprising 26.06ha Grade 2 and 54.3ha Grade 3a. Permanent development includes 0.1ha access track and 0.15ha substation compound. Solar array footprint of 72.69ha.	72.84	0	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.
Boston Alternative Energy Facility (BAEF)	Comprising 25.3ha principal application site and 1.5ha of habitat mitigation area. Total footprint of 26.8ha. Permanent footprint of 15.7ha. Grade 1 land.	15.7	15.7	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.
Heckington Fen Solar Park	Total footprint of 524ha. Permanent footprint of 20.2ha. Solar array footprint of 292ha. Grade 3 land.	312.2	0	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.
Low Farm Solar Farm - 49.9mw Solar Farm	Total footprint of 73.72ha. Permanent land not detailed, assumed all permanent. Mixed grades, not detailed, all BMV.	73.72	0	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.
Red House Farm - 48MW Solar	Total footprint of 80ha. Permanent land not detailed, assumed all permanent. Grade 2 land.	80	0	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.
Moulton Bulb Solar	Total footprint of 2.65ha. Permanent footprint of 2.24ha. Grade 1 land.	2.24	2.24	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.

Other Development		MDS	BMV (ha)	Grade 1 (ha)	Justification
Little Hale Drove 49.9mw Solar Array	-	Total footprint of 86.12ha. 92% Grade 3a land, with the remainder Grade 2.	86.12	0	MDS assumes total area will be agricultural land which will be unavailable during the lifetime of the development. It is noted that much of this land could return to its prior usage.

378. As detailed in the Project only assessment, the aboveground permanent infrastructure of the Project will result in a loss of BMV agricultural land, with the OnSS proposed to be located on Grade 1 land. Therefore, the cumulative assessment has been undertaken in two parts; assessing the impact of the cumulative loss of agricultural land within the immediate area of the OnSS location, as well as a further assessment regarding the impact of the cumulative loss of agricultural land within the wider area of Lincolnshire county, which would be inclusive of all of the other shortlisted projects Table 25.25.

### **25.8.1 Impact 1: Part 1 - Cumulative Loss of Agricultural Land within the OnSS Area (Local Scale)**

379. The Connection Area (See Figure 25.1, Volume 2, Chapter 25 (document reference 6.2.25)) is an indicative search area for the NGSS at Weston Marsh and is located to the south of the OnSS, the proposed Naylor Farms protein extraction facility and anaerobic digester plant is located immediately to the southwest of the OnSS site, on the eastern side of Surfleet Bank (application ref H17-1097-23).

380. The Project OnSS, via the 400kV Cable Corridor, will connect to the proposed NGSS at Weston Marsh. While the location and size of the NGSS is not yet known, an indicative footprint of the NGSS has been provided for the purposes of CEA. Both projects are located on Grade 1 BMV agricultural land and, therefore, when combined their development will result in a cumulative loss of BMV agricultural land within the immediate area of the OnSS.

381. In addition, Naylor Farms is proposed to be located on the same side of Surfleet Bank to the Project, which is considered to be of a close enough vicinity and on a similar development timescale to potentially result in a cumulative effect. The maximum footprint of Naylor Farm used in the assessment has been based upon the Design and Access Statement within the planning application. Naylor Farm is also located on Grade 1 BMV agricultural land.

382. The construction of the NGSS and Naylor Farms has the potential to lead to a cumulative permanent loss of nearby and adjacent areas of Grade 1 agricultural land.

383. Due to the nature of the Project's OnSS having to connect to a NGSS, it is expected that this development will have to have a degree of co-ordination with the Project and the final design of the 400kV cables would seek to reduce loss of agricultural land as much as practicable.

384. The permanent loss of agricultural land from Project alone resulted in a major (significant) effect (see section 25.7.2). As outlined in Appendix 5.3 (document reference 6.3.5.3), the NGSS is assumed to have a maximum footprint of 20.9ha and Naylor Farms is currently known to have applied for planning permission for a 14.3ha site. When combined with the Project's MDS permanent land take from the OnSS and associated access, link box manhole covers, landscaping and drainage works of 26.38ha, the total cumulative area of agricultural land lost is 61.58ha.

385. As per the receptor sensitivities outlined in Table 25.21, the BMV agricultural land lost to the OnSS, the NGSS and the Naylor Farm development is considered to be high sensitivity as permanent loss of more than 20ha is a major adverse impact. Therefore, the cumulative permanent loss of 61.58ha of BMV land would be considered a **major (significant) effect** in EIA terms. If only the OnSS and the NGSS come forward for development, the loss of BMV would be 47.28ha which remains a permanent loss that is a **major (significant) effect**.
386. Table 25.23 details the assumption that there is 395,266.67ha of BMV land within Lincolnshire. The cumulative loss of arable land from the Project and the NGSS, excluding Naylor Farms, would represent approximately 0.012% of Lincolnshire's total available BMV land. Regarding Grade 1 land, the cumulative loss of land resulting from the Project and the NGSS would constitute 0.057% of the 82,600ha of Grade 1 land within Lincolnshire.
387. A permanent loss of agricultural land could have potential impacts on the agricultural market, which is addressed in Chapter 29 (document reference 6.1.29).

### 25.8.2 Impact 1: Part 2 - Cumulative Loss of Agricultural Land within Lincolnshire (County Scale)

388. To address the concerns raised by Lincolnshire County Council (LCC) regarding the cumulative impact of NSIP projects across the county, a secondary assessment has been undertaken.
389. The MDS outlined in Table 25.26 details the individual expected footprint of each of the other developments listed in Appendix 5.3 (document reference 6.3.5.3), which are assumed as a worse case to result in a comparative loss of BMV agricultural land. The combined loss of the other developments equates to approximately 687.39ha of BMV agricultural land and 57.81ha of Grade 1 agricultural land throughout Lincolnshire.
390. As this impact is in reference to the cumulative loss of agricultural land within Lincolnshire, it is assumed that all land being developed will be permanently lost, regardless of the development. Agricultural land which is proposed to be developed as a solar farm is assumed to be unavailable throughout the lifespan of the solar farm, which often spans up to 40-years. However, it is noted that the direct impact to soils beneath solar panels is limited and the majority of the soils, including any BMV soils, would remain in-situ and, therefore, this indirect impact albeit lengthy, could be reversed and the land could be returned to its previous agricultural usage.
391. The maximum permanent footprint of the Project, including associated infrastructure, such as drainage, link box manhole covers, access requirements and onsite landscaping, is 26.38ha.
392. The combined, cumulative loss of BMV agricultural land within Lincolnshire considering the other developments outlined in Table 25.25 and the Project would, therefore, be 1,020.43ha. The total available BMV land in Lincolnshire is 395,266.67ha, with the cumulative loss impacting approximately 0.26% of Lincolnshire's available BMV land.
393. Regarding Grade 1 land, the combined cumulative loss would account for approximately 0.07% of Lincolnshire's 82,600ha of Grade 1 land.
394. As per the methodology outlined in section 25.6, this is a major impact on a high sensitivity receptor, which would be a **major (significant) effect**, in EIA terms.

395. The Project is one of over 13 NSIPs being considered within Lincolnshire, many of which will likely result in a loss of agricultural land. Table 25.27 details the relevant NSIPs within Lincolnshire which could result in a loss of BMV land, with the data obtained from the Heckington Fen Solar Park Environmental Statement<sup>5</sup>. It is noted that design data for many of the projects regarding the individual ALC grades which could be lost was not available and, therefore, will not be included in the assessment.

Table 25.27 NSIPs in Lincolnshire on BMV land

Name	Development	Reference	LCC	Area in LCC	BMV land
Cottam Solar Project	Three electricity generating stations, each with anticipated capacity in excess of 50MW	EN010133	100%	1,270ha	4ha
Gate Burton Energy Park	Generation, storage and export of up to 500MW electrical generation capacity	EN010131	100%	652ha	2ha
West Burton Solar Project	Four electricity generating stations, each with anticipated capacity in excess of 50MW	EN010132	100%	756.8ha	2ha
Mallard Pass Solar Farm	Generation capacity of greater than 50MW	EN010127	38.43%	327.42ha	4.2ha
Boston Alternative Energy Facility (BAEF)	102MWe gross (80MWe exportable) energy from waste facility with light weight aggregates facility, wharf, waste reception and storage	EN010095	100%	26.8ha	15.7ha
Temple Oaks Renewable Energy Park	250MW Solar Farm, accompanied by 400MWh Battery Energy Storage System	EN010126	100%	350ha	0ha
Heckington Fen Solar Park	Solar Farm exceeding 50MW with associated energy storage	EN010123	100%	524ha	312.2ha
Tillbridge Solar Project	Solar farm with a generation capacity of greater than 50MW	EN010142	100%	1,400ha	11ha
Beacon Fen Energy Park	Solar Generation and Battery Storage Project with generating capacity of approximately 600MW and similar capacity for energy storage	EN010152	100%	517ha	20.6ha
Springwell Solar Farm	Solar farm with a generation capacity and storage capacity of greater than 50MW	EN010149	100%	1,702ha	0ha

<sup>5</sup> Heckington Fen Solar Park [EN010123], ES Technical Note- Updated Information on Cumulative Projects, January 2024.



Name	Development	Reference	LCC	Area in LCC	BMV land
Fosse Green Energy	320-350MW Solar Farm, accompanied by 480MWh Battery Energy Storage System	EN010154	100%	1,003ha	10ha
One Earth Solar Farm	740MW Solar Farm, accompanied by 480MWh Battery Energy Storage System	EN010159	17%	255ha (1,500ha in total)	2.5ha
Lincolnshire Reservoir	50 million cubic metre (m3) reservoir and water treatment works	WA010003	100%	6ha	6ha

396. The total loss experienced within Lincolnshire as a result of other NSIPs would amount to approximately 390.2ha of BMV land. However, it is noted that this is inclusive of the widest study areas, temporary working areas and/or areas which will be temporary lost to the presence of solar panels which could be returned to agricultural land following the cessation of the operation of the respective development.

397. With the addition of the Project this amounts to approximately 416.58ha, with the Project itself accounting for a relatively small contribution of 26.38ha. The mitigation measures outlined in Table 25.19 detail the methods taken to reduce the loss of agricultural land through the Project's design process.

398. Within the context of the 395,266.67ha of BMV land within Lincolnshire, the assessed 416.58ha of cumulative loss of the Project and the NSIPs would account for approximately 0.1% of the BMV land within the county. The methodology outlined in section 25.6 leads to the consideration that any additional loss would also result in a **major (significant)** effect, in EIA terms.

399. The wider impacts of the permanent loss of agricultural land, particularly the potential implications on the Agricultural Market, have been addressed in Chapter 29 (document reference 6.1.29).

## 25.9 Inter-Relationships

400. An assessment has been made on whether the impacts identified and assessed in this chapter have the potential to interact with each other. Inter-related effects consider impacts from the construction, operation or decommissioning of the Project on the same receptor (or group).

401. Such inter-related effects include both:

- Project lifetime effects: i.e., those arising throughout more than one phase of the Project (construction, operation, and decommissioning) to interact to potentially create a more significant effect on a receptor than if just one phase were assessed in isolation; and
- Receptor led effects: Assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor (or group). Receptor-led effects might be short term, temporary or transient effects, or incorporate longer term effects.

402. A description of the process to identify and assess these effects is presented in Chapter 5 (document reference 6.1.5), with a summary of assessed inter-relationships provided in Table 25.28 below.

Table 25.28 Summary of assessed inter-relationships

Project phase(s)	Nature of inter-related effect	Assessment alone	Inter-related effects assessment
Project-lifetime effects			
Construction, operation and maintenance, and decommissioning.	Disruption to agricultural productivity resulting from the installation and operation of the underground cables and the temporary usage of land surrounding the OnSS during decommissioning.	Impacts were assessed as being negligible (not significant) at the construction phase, minor (not significant) in the operation and maintenance phase, and minor (not significant) in the decommissioning phase.	When the impact to agricultural productivity is considered additively across all phases the temporal scale of the impact could be considered greater, however, the impacts are considered to be distinctive from one another due to the construction and decommissioning phases impacts resulting from physical changes to the land and potential severance of fields, whilst the operation and maintenance impact is exclusive to effects on crop growth from thermal dissipation, with agricultural land usage having already been reinstated. Therefore, across all phases the effects on agricultural productivity are not anticipated to result in combined effects of greater significance than the assessments presented for each individual phase. There will therefore be no inter-related effects of greater significance compared to the impacts when considered for each phase alone.

**Receptor led effects**

The effects on agricultural productivity during the construction phase of the Project interact both spatially and temporally on the effects on agricultural holdings and areas of agri-environmental scheme agreements. Where agricultural productivity is disrupted, whether through a reduction or cessation of farming activities, the agricultural land holding would be affected, as would any potential agri-environmental scheme agreement. It is considered that, whilst these effects are inter-related, they do not result in an accumulation of the individual effect and therefore be no inter-related effects of greater significance compared to the effects of each receptor considered individually.

There is a further inter-relationship between areas of agri-environmental scheme agreements and ecologically designated sites, due to the potential for the agreement to be related to the ecological designation. As previously, the effects are related but do not interact with one another and effectively supersede one another based on their sensitivity. The effect would be individual to each receptor based upon their relative level of sensitivity. Therefore, there would be no inter-related effects of greater significance compared to the effects of each receptor considered individually.

403. The assessment concludes that there are no significant inter-related effects on land use.
404. Due to the land use assessment considering the physical impacts to the land and the different usages of land as receptors, it has inter-relationships with several other onshore topics assessed in this ES. The identified receptors may have more than one impact; with one impact on the receptor being assessed within this chapter and another impact on the same receptor being assessed in a different chapter, such as the impact on the usage of a PRoW being assessed in this land use chapter, whilst the impact on amenity of a PRoW being assessed in the Landscape and Visual chapter. Of particular note regarding the potential for inter-related impacts, are those outlined on Table 25.29.

Table 25.29 Inter-relationships with the land use assessment

Topic Chapter	Land Use Section	Rationale
Chapter 21: Onshore Ecology (document reference 6.1.21)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider the potential effects on ecologically designated sites and agri-environmental scheme agreements. The land use chapter assesses these receptors strictly based on the direct usage of the land, including its conservational value (as denoted by the importance of its designation) and, as with other land uses, its malleability to temporary and/or permanent change. Whilst the Onshore Ecology chapter considers their biodiversity value.
Chapter 23: Geology and Ground Conditions (document reference 6.1.23)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider the potential effects of the onshore elements of the Project on agricultural land. The land use chapter considers the usage of agricultural land, whilst the Geology and Ground Conditions chapter considers the impacts on agricultural soils.
Chapter 24: Hydrology, Hydrogeology and Flood Risk (document reference 6.1.24)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider the potential effects of the onshore elements of the Project on water features, such as rivers.
Chapter 27: Traffic and Transport (document reference 6.1.27)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider the impacts on PRoWs, cycle routes and long-distance routes and disruption caused by the creation of new access roads.
Chapter 28: Landscape and Visual (document reference 6.1.28)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider receptors such as footpaths, greenspace or recreational amenities. However, land use considers the usage of the receptors, whilst Landscape and Visual consider the impacts on visual amenity during construction and residual changes during operation.

Topic Chapter	Land Use Section	Rationale
Chapter 29: Socio-Economic Characteristics (document reference 6.1.29)	Identified in section 25.4 Basis of the Assessment. Assessed in section 25.7.	Both chapters consider the impacts on agricultural land, recreational amenities and tourism assets. However, land use considers changes to the usage of the receptors, whilst Socio-economic Characteristics considers a potential gain/loss of income and Gross Value Added (GVA), and potential impacts on the agricultural market.

405. Given the localised nature of the effects, there is not considered to be the potential for any significant inter-related effects between offshore and onshore parts of the Project in terms of land use.

### 25.10 Transboundary Effects

406. Onshore transboundary effects are scoped out of the assessment as the Inspectorate agrees that as land use effects will be localised within the study area, that this matter can be scoped out of the assessment.

### 25.11 Conclusions

407. The majority of the residual effects associated with land use are not considered to be significant, with a full summary provided on Table 25.30. However, the localised impact of the permanent loss of agricultural land during the operation and maintenance phase, as well as cumulatively with the National Grid substation, is considered to be a **significant major adverse effect**.

Table 25.30 Summary of potential impacts on land use

Description of effect	Effect	Additional mitigation measures	Residual impact
<b>Construction</b>			
Impact 1: Agricultural Productivity	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 2: Agricultural Land Holdings	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 3: Outdoor Recreational Land (rivers)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 3: Outdoor Recreational Land (tourism land)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 4: Ecological Designations	Negligible	No additional mitigation identified	No significant adverse residual effects

Description of effect	Effect	Additional mitigation measures	Residual impact
Impact 5: Long Distance Routes and Public Rights of Way (King Charles III England Coast Path)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 5: Long Distance Routes and Public Rights of Way (Macmillan Way)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 5: Long Distance Routes and Public Rights of Way (Greenwich Meridian Trail)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 5: Long Distance Routes and Public Rights of Way (NCR 1 – ECC 8)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 5: Long Distance Routes and Public Rights of Way (NCR 1 – ECC 14)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 5: Long Distance Routes and Public Rights of Way (PRoWs)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 6: Agri-Environmental Schemes (Higher Level Environmental Stewardship - ECC 1)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 6: Agri-Environmental Schemes (Countryside Stewardship Scheme south of Croft)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 6: Agri-Environmental Schemes (Countryside Stewardship Scheme west of Patmans Lane)	Minor adverse	No additional mitigation identified	No significant adverse residual effects

Description of effect	Effect	Additional mitigation measures	Residual impact
Impact 6: Agri-Environmental Schemes (Organic Entry Level plus Higher Level Environmental Stewardship Scheme Agreements)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 6: Agri-Environmental Schemes (Entry Level Environmental Stewardship)	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 7: Utilities	No impact	No additional mitigation identified	No significant adverse residual effects
Impact 8: Access/Common Land (coastal margin)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 8: Access/Common Land (Hallgate)	Negligible	No additional mitigation identified	No significant adverse residual effects
Impact 9: Greenspace	Minor adverse	No additional mitigation identified	No significant adverse residual effects
Impact 10: Coastal Use	Negligible	No additional mitigation identified	No significant adverse residual effects
<b>Operation and Maintenance</b>			
Impact 1: Loss of Agricultural Land	Major adverse	No additional mitigation identified	Major significant adverse residual effect
Impact 2: ECC Soil Heating	Minor adverse	No additional mitigation identified	No significant adverse residual effects
<b>Decommissioning</b>			
ECC impacts	Negligible	No additional mitigation identified	No significant adverse residual effects
Permanent infrastructure impacts	Minor adverse	No additional mitigation identified	No significant adverse residual effects
<b>Cumulative</b>			
Impact 1: Part 1 - Cumulative Loss of Agricultural Land within the OnSS Area	Major adverse	No additional mitigation identified	Major significant adverse residual effect

Description of effect	Effect	Additional mitigation measures	Residual impact
Impact 2: Part 2 - Cumulative Loss of Agricultural Land within Lincolnshire	Major adverse	No additional mitigation identified	Major significant adverse residual effect



## 25.12 References

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