XLINKS' MOROCCO-UK POWER PROJECT

Environmental Statement

Volume 2, Chapter 8: Land Use and Recreation

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Glossary

Term	Meaning
Alverdiscott Substation	The existing National Grid Electricity Transmission substation at Alverdiscott, Devon, which comprises 400 kV and 132 kV electrical substation equipment.
Alverdiscott Substation Connection Development	The development required at the existing Alverdiscott Substation Site, which is envisaged to include development of a new 400 kV substation, and other extension modification works to be carried out by National Grid Electricity Transmission. This does not form part of the Proposed Development, however, it is considered cumulatively within the Environmental Impact Assessment as it is necessary to facilitate connection to the national grid.
Alverdiscott Substation Site	The National Grid Electricity Transmission site within which the Alverdiscott Substation sits.
Applicant	Xlinks 1 Limited.
Access land	The Countryside and Rights of Way Act 2000 gives a public right of access to land mapped as 'open country' (mountain, moor, heath and down) or registered common land. These areas are known as 'access land'.
Best and Most Versatile	Agricultural land that is the best and most versatile for growing crops.
Bipole	A Bipole system is an electrical transmission system that comprises two Direct Current conductors of opposite polarity (one conductor with positive voltage and one with negative voltage).
Common Land	Common land is land that has a landowner but over which other people have rights to use it or to harvest natural products.
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation Site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure, buildings and landscaping.
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current to Alternating Current, or vice versa.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
HVAC Cables	The High Voltage Alternating Current cables which would bring electricity from the converter stations to the new Alverdiscott Substation Connection Development.
HVAC Cable Corridors	The proposed corridors (for each Bipole) within which the onshore High Voltage Alternating Current cables would be routed between the Converter Site and the Alverdiscott Substation Site.
HVDC Cables	The High Voltage Direct Current cables which would bring electricity to the UK converter stations from the Moroccan converter stations.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and

Term	Meaning
	County Borough Councils. The relevant Local Authorities for the Proposed Development are Devon County Council and Torridge District Council.
Maximum Design Scenario	The realistic worst case scenario, selected on a topic-specific and impact specific basis, from a range of potential parameters for the Proposed Development.
Mean High Water Springs	The height of mean high water during spring tides in a year.
National Policy Statement(s)	The current national policy statements published by the Department for Energy Security and Net Zero in 2023 and adopted in 2024.
Onshore Infrastructure Area	The proposed infrastructure area within the Order Limits landward of Mean High Water Springs. The Onshore Infrastructure Area comprises the transition joint bays, onshore HVDC Cables, converter stations, HVAC Cables, highways improvements, utility diversions and associated temporary and permanent infrastructure including temporary compound areas and permanent accesses.
Order Limits	The area within which all offshore and onshore components of the Proposed Development are proposed to be located, including areas required on a temporary basis during construction (such as construction compounds).
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project, and which helps to inform consultation responses.
Proposed Development	The element of Xlinks' Morocco-UK Power Project within the UK. The Proposed Development covers all works required to construct and operate the offshore cables (from the UK Exclusive Economic Zone to Landfall), Landfall, onshore Direct Current and Alternating Current cables, converter stations, and highways improvements.
Study area	This is an area which is defined for each environmental topic which includes the Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected.
Xlinks' Morocco UK Power Project	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the 'Project').

Acronyms

Acronym	Meaning
ALC	Agricultural Land Classification
BMW	Best and Most Versatile
CRoW	Countryside and Rights of Way Act
Defra	Department for Environment, Food & Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DMRB	Design Manual for Roads and Bridges
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ES	Environmental Statement
IEMA	Institute of Environmental Management and Assessment
MAFF	Ministry of Agriculture, Fisheries and Food
MAGIC	Multi-agency Geographic Information for the Countryside
MDS	Maximum Design Scenario
MHWS	Mean High Water Springs
NCN	National Cycle Network
NPPF	National Planning Policy Framework
NPS	National Policy Statement
OS	Ordnance Survey
PEIR	Preliminary Environmental Information Report
PPG	Planning Practice Guidance
PRoW	Public Right of Way
UK	United Kingdom

Units

Units	Meaning
ha	Hectare
km	Kilometre
m	Metre
nm	Nautical miles

8 LAND USE AND RECREATION

8.1 Introduction

8.1.1 This chapter of the Environmental Statement (ES) presents the findings of the Environmental Impact Assessment (EIA) undertaken for the United Kingdom (UK) elements of Xlinks' Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to in this chapter as the 'Proposed Development'. The ES accompanies the application to the Planning Inspectorate for development consent for the Proposed Development.

8.1.2 This chapter considers the likely impacts and effects of the Proposed Development on land use and recreation during the construction, operation and maintenance and decommissioning phases. Specifically, it relates to the onshore elements of the Proposed Development landward of Mean High Water Springs (MHWS).

8.1.3 In particular, this ES chapter:

- identifies the key legislation, policy and guidance relevant to land use and recreation;
- details the EIA scoping and consultation process undertaken to date for land use and recreation;
- confirms the study area for the assessment, the methodology used to identify baseline environmental conditions, the impact assessment methodology, and identifies any assumptions and limitations encountered in compiling the environmental information;
- sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation;
- details the mitigation and/or monitoring measures that are proposed to prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process;
- defines the project design parameters used to inform for the impact assessment;
- presents an assessment of the likely environmental impacts and effects in relation to the construction, operation and maintenance and decommissioning phases of the Proposed Development on land use and recreation; and
- identifies any cumulative, transboundary and/or inter-related effects in relation to the construction, operation and maintenance and decommissioning phases of the Proposed Development on land use and recreation.

8.1.4 The assessment presented is informed by the following technical chapters and should be read in conjunction with:

- Volume 2, Chapter 6: Noise and Vibration, of the ES;
- Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the ES; and
- Volume 4, Chapter 3: Socio-economics and Tourism, of the ES.

8.1.5 This chapter also draws upon additional information to support the assessment contained within the following technical appendices:

- Volume 2, Appendix 8.1: Soil Survey and Agricultural Land Classification Data, of the ES.

8.2 Legislative and Policy Context

Legislation

8.2.1 The Town and Country Planning (Development Management Procedure) (England) Order 2015 Schedule 4(y) identifies a minimum threshold of 20 ha for consultation with Natural England on the loss of best and most versatile Grades 1, 2 and Subgrade 3a land that are relevant to the assessment of the effects of the Proposed Development on agricultural land quality.

8.2.2 The primary legislation relating to land use and recreational resources is the Countryside and Rights of Way Act (CRoW) 2000. This Act gives public rights of access to land mapped as 'open country' (mountain, moor, heath and down) or registered Common Land (collectively known as 'open access land'). In addition, the Commons Act 2006 makes provision for registration and management of common land and town or village greens.

8.2.3 Part 9 of the Marine and Coastal Access Act 2009 outlines important provisions related to coastal access in England. This includes provision of a long-distance walking trail that spans the entire English coast and a margin of land accessible to the public for their enjoyment, whether in connection with the long-distance walking trail or independently.

8.2.4 Other legislation of relevance to the assessment of land use and recreation includes The Wildlife and Countryside Act 1981, which requires local authorities to maintain, review and protect definitive Public Rights of Way (PRoW) and The Environmental Stewardship (England) Regulations 2005, which promote the use of sustainable land management practices (e.g. maintaining hedgerows, creating wildlife habitats and managing watercourses).

Planning Policy Context

8.2.5 The Proposed Development would be located within the UK Exclusive Economic Zone (EEZ) offshore waters (beyond 12 nautical miles (nm) from the English coast) and inshore waters, with the onshore infrastructure proposed to be located wholly within Devon, England. As set out in Volume 1, Chapter 1: Introduction, of the ES, the Secretary of State for the Department for Energy Security and Net Zero (DESNZ) has directed that elements of the Proposed Development are to be treated as development for which development consent is required under the Planning Act 2008, as amended.

National Policy Statements

8.2.6 There are currently six energy National Policy Statements (NPSs), three of which contain policy relevant to the Proposed Development, specifically:

- Overarching NPS for Energy (NPS EN-1) which sets out the UK Government's policy for the delivery of major energy infrastructure (Department for Energy Security & Net Zero 2023a);
- NPS for Renewable Energy Infrastructure (NPS EN-3) (Department for Energy Security & Net Zero 2023b); and
- NPS for Electricity Networks Infrastructure (NPS EN-5) (Department for Energy Security & Net Zero 2023c).

8.2.7 **Table 8.1** sets out key aspects from the NPSs relevant to land use and recreation. NPS EN-3 does not contain policy relevant to the land use and recreation assessment for the Proposed Development.

Table 8.1: Summary of relevant NPS policy

Summary of NPS requirement	How and where considered in the ES
NPS EN-1	
'*The ES 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'* (Paragraph 5.11.8 of NPS EN-1)	The baseline environment with respect to land use has been identified and is presented in **section 8.7** of this ES chapter. The effects of the Proposed Development on land use have been considered and are presented in **sections 8.10 - 8.12** of this chapter.
'*During any pre-application discussions with the applicant the Local Planning Authority (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'* (Paragraph 5.11.11 of NPS EN-1)	Consultation has taken place with the Local Authorities to identify relevant proposed developments for cumulative assessment.
'*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)*' (Paragraph 5.11.12 of NPS EN-1)	This ES chapter considers the potential effects of the Proposed Development on agricultural land, including Best and Most Versatile (BMV) agricultural land. The effects of the Proposed Development on agricultural land are presented in **sections 8.10 - 8.12** of this chapter. The measures adopted as part of the Proposed Development to minimise impacts on agricultural land are set out in **section 8.8** of this chapter.
'*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'* (Paragraph 5.11.13 of NPS EN-1)	The Applicant has developed an Outline Soil Management Plan (Outline SMP) as Appendix D to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) for the Proposed Development. The Outline SMP contains measures to minimise potential land contamination and ensure the sustainable reuse of soils in line with good practice guidance. The measures adopted as part of the Proposed Development to minimise adverse effects on soils, including measures set out in the Outline SMP are set out in **section 8.8** of this chapter.
'*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*	The Applicant has developed an Outline SMP as Appendix D to the (the Outline On-CEMP (document reference 7.7) for the Proposed Development. The Outline SMP will contain measures to minimise

Summary of NPS requirement	How and where considered in the ES
considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination' (Paragraph 5.11.14 of NPS EN-1)	potential land contamination and ensure the sustainable reuse of soils in line with good practice guidance. The measures adopted as part of the Proposed Development to minimise adverse effects on soils, including measures to be set out in the Outline SMP) are set out in **section 8.8** of this chapter.
'*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'* (paragraph 5.11.30 of NPS EN-1)	The Applicant has submitted an Outline Public Rights of Way Management Plan (document reference 7.11) for the Proposed Development which includes proposed management measures to reduce, as far as possible, effects of the Proposed Development on PRoWs.
'In considering the impact on maintaining coastal recreation sites and features, the Secretary of State should expect applicants to have taken advantage of opportunities to maintain and enhance access to the coast. In doing so the Secretary of State should consider the implications for development of the creation of a continuous signed and managed route around the coast, as provided for in the Marine and Coastal Access Act 2009.' (Paragraph 5.11.35 of NPS EN-1)	The potential impacts of the Proposed Development on recreational resources, including coastal areas is identified in **section 8.7** and assessed in **sections 8.10 - 8.12** of this ES chapter. Measures adopted as part of the Proposed Development to mitigate potential impacts on land use and recreation are provided in **section 8.8** of this ES chapter.
'The government's policy is to ensure there is adequate provision of high quality open space and sports and recreation facilities to meet the needs of local communities. Connecting people with open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living.' (Paragraph 5.11.6 of NPS EN-1).	The potential impacts of the Proposed Development with respect to recreational resources, including best open space and sports and recreation facilities are identified in **section 8.7** and assessed in **sections 8.10 - 8.12** of this ES chapter. Measures adopted as part of the Project to mitigate potential impacts on land use and recreation are provided in **section 8.8** of this ES chapter.
NPS EN-5	
'Depending on the location of the proposed development, statutory duties under Section 85 of the Countryside and Rights of Way Act 2000, Section 11A of the National Parks and Access to the Countryside Act 1949 (as amended by Section 62 of the Environment Act 1995), and Section 17A of the Norfolk and Suffolk Broads Act 1988 may be relevant. Applicants should note amendments to each of these provisions contained in Section 245 of the Levelling Up and Regeneration Act 2023.' (Paragraph 2.2.11 of NPS EN-5).	Legislation relevant to the assessment of land use and recreation, including the Countryside and Rights of Way (CRoW) Act 2000 are set out in **section 8.7** of this ES chapter. The Proposed Development does not coincide with any National Parks. As such, provisions set out in the National Parks and Access to the Countryside Act 1949 (as amended by Section 62 of the Environment Act 1995) have not been considered further in this chapter of the ES.
'The secretary of state should consider the applicant's commitment, as set out in their ES, to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils (including peat soils), particularly	The potential impacts of the Proposed Development with respect to agricultural land, including best and most versatile soils are identified in **section 8.7** and assessed in **section 8.10 - 8.12** of this chapter of the ES. Measures adopted as part of the Proposed

Summary of NPS requirement	How and where considered in the ES
regarding Best and Most Versatile land, including development and implementation of a Soil Resources and Management Plan. Such a commitment must guarantee appropriate handling of soil, backfilling, and return of the land to the baseline Agricultural Land Classification (ALC), thus ensuring no loss or degradation of agricultural land. Such a commitment should be based on soil and ALC surveys in line with the 1988 ALC criteria and due consideration of the Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites.' (Paragraph 2.9.25 of NPS EN-5).	Development to mitigate potential impacts on land use and recreation are provided in **section 8.8** of this ES chapter. This includes the preparation of a Soil Management Plan in general accordance with the Outline Soil Management Plan (document reference 7.7, Appendix D), which has been submitted with the DCO application. The measures implemented as part of the Soil Management Plan seek to minimise impacts on soil health and protect and maintain soil quality during construction of the Proposed Development.

The National Planning Policy Framework

8.2.8 The National Planning Policy Framework (NPPF) was published in 2012 and updated in 2018, 2019 and 2021 and 2023 (Department for Levelling Up, Housing and Communities, 2023). The NPPF sets out the Government's planning policies for England.

8.2.9 The NPPF has been updated and the draft version was published for consultation on 30 July 2024 (Ministry of Housing, Communities and Local Government, 2024). Following consultation, the NPPF will be updated.

8.2.10 **Table 8.2** sets out a summary of the NPPF policies relevant to this chapter.

Table 8.2: Summary of NPPF requirements relevant to this chapter

Policy	Key provisions	How and where considered in the ES
Section 15, Conserving and enhancing the natural environment. (Paragraph 180)	'*Planning policies and decisions should contribute to and enhance the natural and local environment by:* *a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);* *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'*	This ES chapter considers potential effects of the Proposed Development on agricultural land, including best and most versatile (BMV) agricultural land. The effects of the Proposed Development on agricultural land are presented in **sections 8.10 - 8.12** of this chapter. The measures adopted as part of the Proposed Development to limit impacts on land quality are set out in **section 8.8** of this chapter.
Section 15, Conserving and enhancing the natural environment.	*Footnote 62: Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside the other policies in this Framework, when deciding what sites are most appropriate for development.*	Justification for the location of the Proposed Development, including a description of the design and/or environmental constraints considered as part of the iterative design process, is set out Volume 1, Chapter 4: Need and Alternatives of the ES.

Policy	Key provisions	How and where considered in the ES
Section 8, Promoting healthy and safe communities. (Paragraph 96)	'*Planning policies and decisions should aim to achieve healthy, inclusive and safe places and beautiful buildings which:* *a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;* *b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of beautiful, well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and* *c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling'*	This ES chapter considers the potential effects of the Proposed Development on recreational resources, including existing open space, sports and recreational buildings and land (e.g., playing fields), Public Rights of Way (PRoW), including National Trails. The effects of the Proposed Development on these recreational resources are presented **sections 8.10 - 8.12** of this chapter. The measures adopted as part of the Proposed Development to minimise adverse effects on recreational resources are set out in **section 8.8** of this chapter.
Section 8 Promoting healthy and safe communities – open space and recreation. (Paragraph 102 – 104)	*'102. Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.* *103. Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:*	This ES chapter considers the potential effects of the Proposed Development on recreational resources, including existing open space, sports and recreational buildings and land (e.g., playing fields), PRoW, including National Trails. The effects of the Proposed Development on these recreational resources are presented **sections 8.10 - 8.12** of this chapter. The measures adopted as part of the Proposed Development to minimise adverse effects on recreational resources are set out in **section 8.8** of this chapter.

Policy	Key provisions	How and where considered in the ES
	a) an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or *b) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a location; or* *c) the development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.* *104. Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.'*	

8.2.11 The draft NPPF includes similar provisions as the current designated NPPF. The draft NPPF has been reviewed and there are no material updates for land use and recreation.

8.2.12 The Planning Practice Guidance (PPG) (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government, 2024) supports the NPPF and provides guidance across a range of topic areas.

8.2.13 The PPG provides guidance with respect to Open space, Sports and Recreation facilities, PRoWs and the new Local Green Space Designation. The PPG reiterates the importance of these features to maintaining the health and wellbeing of people living and/or working nearby. In addition, the PPG states that PRoWs form an important component of sustainable transport links and should be protected or enhanced.

8.2.14 The PPG also provides guidance regarding agricultural land as part of the Natural Environment, including the ways in which the planning process can take account of the quality of agricultural land and safeguarding of soils.

Local Planning Policy

8.2.15 The onshore elements of the Proposed Development are located within the administrative area of Torridge District Council (and Devon County Council at the County level). The relevant local planning policies applicable to land use and recreation based on the extent of the study areas for this assessment are summarised in **Table 8.3**.

Table 8.3: Summary of local planning policy relevant to this chapter

Policy	Key provisions	How and where considered in the ES
North Devon and Torridge Local Plan 2011-2031		
ST 01: Principles of Sustainable Development	*'(1) When considering development proposals the Councils will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. The Councils will always work proactively with applicants and local communities to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.* *(2) Planning applications that accord with the policies in this Local Plan (and where relevant with policies in Neighbourhood Plans) will be approved unless material considerations indicate otherwise.* *(3) Where there are no policies relevant to an application, or relevant policies are out of date at the time of making the decision, then the Councils will grant permission unless material considerations indicate otherwise, taking into account whether:* *(a) any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or* *(b) specific policies in that Framework or guidance in the National Planning Practice Guidance indicate that development should be restricted.'*	The assessment of the Proposed Development in terms of the NPPF is considered in **sections 8.10 - 8.12** of this chapter.
ST 02: Mitigating Climate Change	*Development will be expected to make a positive contribution towards the social, economic and environmental sustainability of northern Devon and its communities while minimising its environmental footprint by:* *(a) reducing greenhouse gas emissions by locating development appropriately and achieving high standards of design;* *(b) conserving and enhancing the natural, built and historic environment through the prudent use of key resources including land, buildings and energy, whilst protecting and enhancing the area's biodiversity, geodiversity, landscape, coastline, air, water, archaeology and culture;* *(c) ensuring a balanced mix of uses where development takes place in environmentally, socially and economically sustainable locations by reducing the need to travel, especially by car, and facilitating a step-change towards the use of sustainable modes of transport including walking, cycling and public transport;* *(d) promoting opportunities for renewable and low-carbon energy generation whilst conserving and enhancing the natural and built environment;*	The effects of the Proposed Development on the agricultural land is assessed in **sections 8.10 - 8.12** of this chapter.

Policy	Key provisions	How and where considered in the ES
	(e) redeveloping previously developed land and reducing, reusing and recycling resources, including construction materials, providing for more efficient use of facilities and enhanced opportunities for recycling; and *(f) reducing pressure on water resources and increasing their reuse through sustainable water management.*	
ST 14: Enhancing Environmental Assets	'*The quality of northern Devon's natural environment will be protected and enhanced by ensuring that development contributes to:* *d) conserving northern Devon's geodiversity and its best and most versatile agricultural land;* *(j) increasing opportunities for access, education and appreciation of all aspects of northern Devon's environment, for all sections of the community*…'	The effects of the Proposed Development on the best and most versatile land are assessed in **sections 8.10 - 8.12** of this chapter. Measures to protect soil resources and agricultural land quality are set out in **section 8.8** of this chapter.
DM 05: Highways	'*Policy DM05: Highways* *(1) All development must ensure safe and well designed vehicular access and egress, adequate parking and layouts which consider the needs and accessibility of all highway users including cyclists and pedestrians.* *(2) All development shall protect and enhance existing public rights of way, footways, cycleways and bridleways and facilitate improvements to existing or provide new connections to these routes where practical to do so*.'	The potential effects of the Proposed Development with respect PRoW are assessed in **sections 8.10 - 8.12** of the chapter. Measures adopted to limit adverse effects on PRoW are set out in **section 8.8** of this chapter.
ST 09: Coast and Estuary Strategy	'*The Coastal and Estuarine Zone is identified on the Policies Map where:* *(11) The continuity of the South West Coast Path and the Tarka Trail will be protected and a network of connecting routes will be improved. Improvements to coastal and estuarine access will be sought where rundown waterfront areas are regenerated. The Tarka Trail link between Ilfracombe and Braunton will be completed*.'	The potential effects of the Proposed Development on the coast and public rights of way are assessed in **sections 8.10 - 8.12** of the chapter. Measures adopted to limit adverse effects on Public Rights of Way are set out in **section 8.8** of this chapter.

8.3 Consultation and Engagement

Scoping

8.3.1 In January 2024, the Applicant submitted a Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Proposed Development. It also described those topics or sub-topics which are proposed to be scoped out of the EIA process and provided justification as to why the Proposed Development would not have the potential to give rise to significant environmental effects in these areas.

8.3.2 Following consultation with the appropriate statutory bodies, the Planning Inspectorate (on behalf of the Secretary of State) provided a Scoping Opinion on 7 March 2024. Key issues raised during the scoping process specific to land use and recreation are listed in **Table 8.4**, together with details of how these issues have been addressed within the ES.

Table 8.4: Summary of Scoping Responses

Comment	How and where considered in the ES
Planning Inspectorate	
'*The ES should ensure an assessment of the amenity value of recreational resources is clearly presented in the ES, where likely significant effects could occur, and appropriate cross-referencing is applied between aspect chapters*.' (Scoping Opinion ID: 3.8.4)	The inter-related effects and cross references to other relevant ES chapters are considered in **section 8.15** of this chapter.
'*Where surveys are undertaken in respect to agricultural land classification (ALC) and soil, the Applicant's attention is directed to the response of NE at Appendix 2 of this Opinion, which provides comment on the level of detail recommended. The Inspectorate recommends that effort should be made to agree survey methodology and locations with relevant consultation bodies*.' (Scoping Opinion ID: 3.8.5)	Where complete ALC survey of the land to be permanently affected by the Proposed Development has not been possible, a conservative assumption has been applied to the assessment that assumes that land currently unsurveyed could comprise the best and most versatile land to provide a reasonable worst case.
'*The ES should clearly identify the extent of BMV affected by the Proposed Development and include details of how any adverse impacts on BMV agricultural land would be minimised through design*.' (Scoping Opinion ID: 3.8.6)	The potential effects of the Proposed Development on best and most versatile land are assessed in **sections 8.10 - 8.12** of this ES chapter.
'*The Scoping Report states that the construction process would take into account the principles of good practice in soil handling at Paragraph 4.9.42. It is considered that the handling, storage and reinstatement of soil should be conducted in accordance with a Soil Management Plan (SMP), or as secured through the CEMP, which sets out good practice mitigation to minimise adverse effects on the soil resource. The ES should address how soils and agriculture would be managed and describe any assumptions made. Any mitigation required should be explained in the ES and appropriately secured*.'	Measures adopted as part of the Proposed Development are set out in **section 8.8** of this ES Chapter. An Outline Soil Management Plan (Outline SMP) is submitted as Appendix D to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) for the Proposed Development to ensure that potential adverse impacts on soils can be limited, as far as possible.

Comment	How and where considered in the ES
(Scoping Opinion ID: 3.8.7)	
'*The ES should describe what mitigation would be put in place to ensure minimal disruption of PRoWs and other recreational resources and how this would be secured through the DCO*.' (Scoping Opinion ID: 3.8.8)	An Outline Public Rights of Way Management Plan (document reference 7.11) has been submitted with the DCO application to limit the disruption to PRoWs and other recreational routes during the construction of the Proposed Development.
Devon County Council	
'*The Environmental Statement should acknowledge that the proposal will affect a number of Public Rights of Way (PRoW) in the area and should therefore subsequently provide a detailed assessment of how each PRoW is likely to be impacted and what mitigation will be put in place to ensure minimal disruption. Given that it is likely that most disruption is likely to occur during the construction phase of the development, a Construction and Environmental Management Plan should also accompany the Environmental Statement detailing the measures being put in place to maintain access, where possible, to any affected routes during construction and detail how the applicant intends to ensure all Public Rights of Way legislation requirements are met should any routes require diversion or temporary closure*.'	Measures adopted as part of the Proposed Development are set out in **section 8.8** of this ES Chapter. An Outline Public Rights of Way Management Plan (document reference 7.11) has been submitted as part of the DCO application to limit the disruption to PRoWs and other recreational routes during the construction of the Proposed Development.
Natural England	
'*The degree to which soils would be disturbed or damaged as part of the development, and the extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted, should be considered.* *This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk*.'	The potential effects of the Proposed Development on best and most versatile land are assessed in **sections 8.10 - 8.12** of this ES chapter. Provisional ALC mapping is presented in Volume 2, Figure 8.5 and detailed (post-1988) ALC mapping is presented in Volume 2, Figure 8.6 of the ES.
'*The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan*.'	
'*The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts. Further information is available in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and The British Society of Soil Science Guidance Note Benefitting from Soil Management in Development and Construction*.'	Measures adopted as part of the Proposed Development are set out in **section 8.8** of this ES Chapter. An Outline Soil Management Plan (Outline SMP) is submitted as Appendix D to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) for the Proposed Development to ensure that potential adverse impacts on soils can be limited, as far as possible.

Comment	How and where considered in the ES
Littleham and Landcross Parish Council	
'*The cable route also provides an opportunity to create a footpath/cycle path from the SW Coast Path to the Tarka Trail – this would be a major community benefit contributing to social and economic well-being and active travel in the area. This would be major positive impact and should be considered*.'	**Section 8.8** of this ES Chapter includes measures that are proposed as part of the Proposed Development. An Outline Public Rights of Way Management Plan (document reference 7.11) has been submitted as part of the DCO application to limit the disruption to PRoWs and other recreational routes during the construction of the Proposed Development.

Preliminary Environmental Information Report

8.3.3 The preliminary findings of the EIA process were published in the Preliminary Environmental Information Report (PEIR) on 16 May 2024. The PEIR was prepared to provide the basis for statutory public consultation under the Planning Act 2008. This included consultation with statutory bodies under section 42 of the Planning Act 2008.

8.3.4 A summary of the key items raised specific to land use and recreation is presented in **Table 8.5,** together with how these issues have been considered in the production of this ES chapter.

Further Engagement

8.3.5 Throughout the EIA process, consultation and engagement (in addition to scoping and section 42 consultation) with interested parties specific to land use and recreation has been undertaken.

8.3.6 A summary of the key items raised specific to land use and recreation is presented in **Table 8.5,** together with how these issues have been considered in the production of this ES chapter.

Table 8.5: Summary of consultation relevant to this chapter

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Natural England, section 42 response	Footnote 62: Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside the other policies in this Framework, when deciding what sites are most appropriate for development.	This has been added to **section 8.2** of this ES chapter.
		Cable route data: 8.4.14 Volume 2, Figure 8.3 and 8.3a shows only mapped Agricultural Land Classification (ALC) grades for the converter site, there is no detailed data presented for the cable route. Natural England advises that this data should be made available.	Figures 8.3 and 8.3a are provided in Volume 2, Figures to show the distribution of ALC grades based on 2011 survey data.
		Permanent loss of land: 8.4.15 Natural England support the commitment to provide detailed ALC surveys for areas within the land use study area where there would be permanent loss of agricultural land associated with the converter stations. (Please see advice on survey requirements)	It has not been possible to access the areas of permanent land for ALC survey. It has therefore been assumed, until detailed survey is possible, that those areas of the permanent Onshore Infrastructure Area that have not been surveyed could comprise areas of the best and most versatile Subgrade 3a land. The results of soil and ALC survey work undertaken to date have informed the Outline Soil Management Plan (document reference 7.7, Appendix D) submitted as part of the DCO application, which includes the commitment to undertaking further detailed soil survey of the land within the area of the Proposed Development to confirm the distribution of soil types to be affected during construction.
		Temporary soil disturbance impacts: The temporary displacement of soil as a result of the underground cable installation, and construction of temporary haul and access roads/construction compounds can result in permanent land quality change and soil damage if undertaken inappropriately. Therefore, Natural England advises a commitment to consider disturbance impacts in the Outline Soil Management Plan (SMP). This is required for consultees and decision makers to	The Outline Soil Management Plan (Outline SMP), submitted as Appendix D to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) for the Proposed Development contains measures to control stripping, storage and restoration of soils during the construction of the Proposed Development.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		understand the extent (ha) and likely long-term impacts on agricultural land quality (ALC grade).	
		Soil Damage: Natural England advises that there is a risk of soil damage, ALC degradation and long term or permanent loss of BMV from cable installation (grid route). Soil will need to be handled according to best practice and reinstated to a high standard to reduce the impacts. The results from a detailed ALC survey would provide soils data to inform a soil management plan for the whole site regardless of whether the use is permanent or temporary in nature.	The results of soil and ALC survey work undertaken to date have informed the Outline Soil Management Plan (Outline SMP), submitted as Appendix D to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7) for the Proposed Development includes the commitment to undertaking further detailed soil survey of the land within the area of the Proposed Development to confirm the distribution of soil types to be affected during construction to inform the development of the detailed Soil Management Plan.
		Surveys: Natural England advises that a detailed ALC and soil survey of the agricultural land should be undertaken across the full Study Area to inform the EIA. This should normally be at a detailed level, e.g. one auger boring per hectare, supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. Soil data collected as part of an ALC survey can also be used to inform the soil resource and management plan as set out in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. This type of survey requires an experienced ALC surveyor, in order to make the correct professional judgements and where to introduce flexibility.	The results of soil and ALC survey work undertaken to date have informed the development of the Outline Soil Management Plan (document reference 7.7, Appendix D) submitted as part of the DCO application, which includes the commitment to undertaking further detailed soil survey of the land within the area of the Proposed Development to confirm the distribution of soil types to be affected during construction.
		Soil Management Plan: 8.4.28 Natural England supports the provision of an Outline SMP (oSMP) which should be informed by site-specific soil information to inform suitable soil handling (Defra Construction Code of Practice (Defra, 2009)). The SMP should also set out the target specification for the proposed end uses. We advise that the target specification for the restored soils should be based on pre-construction ALC grade.	The Outline Soil Management Plan (document reference 7.7, Appendix D) submitted as part of the DCO application, contains measures to control stripping, storage and restoration of soils during the construction of the Proposed Development and has been informed by Defra Construction Code of Practice (Defra, 2009).
		Soil Association: 8.5.16, 8.5.20 According to the submitted DCO boundary dataset Natural England cannot identify the	The relevant associations have been referenced in **section 8.7** of this ES Chapter. The soil series

Date	Consultee and type of response	Issues raised	How and where considered in the ES
		following soil association within the submitted red line boundary. (Powys series (Ph)) (Nercwys series (Nc)). This will need to be resolved in the application.	identified are those found as part of the soil associations identified.
		Data Sources: 8.5.22 Natural England advises that the Atlantic Array survey work undertaken by RPS should form part of this submission as it is a useful soil data source.	The available survey data has been included in Volume 2: Appendix 8.1: Soil Survey and Agricultural Land Classification Data of the ES.
		Survey Requirements: 8.8.9 Natural England advises that the ES should present the detailed and semi-detailed ALC survey information. This should include a breakdown of the ALC grades (area, %) in relation to the application site boundary and include ALC and soil data for the cable route and areas of permanent infrastructure and habitat enhancement. A breakdown of the proposed site into disturbed and undisturbed land categories should also be included, split by ALC grade, to help illustrate the potential for impact on agricultural land grade.	The distribution of ALC grades based on the 2011 survey information is presented in Volume 2: Figure 8.3 of this ES. The areas of ALC grades identified within the Converter Site is provided in **section 8.7** of this chapter.
		Operational Lifespan: 8.10.3 Natural England notes that the proposed operational lifespan is assumed to be 50 years. However, there are provisions in place should the development not continue to be operational past this point. There needs to be a firm commitment to decommission the site after 50 years (or sooner if no longer operational), remove all infrastructure and equipment and return the land to its original condition and ALC grade. As part of this there should be a commitment to prepare and submit to the decision maker a detailed decommissioning plan to restore the site prior to the end of its operational use, as set out by NPS EN3.	An Outline Decommissioning Strategy has been submitted as part of the application for development consent (document reference 7.17), which details that onshore and offshore decommissioning plans would be prepared in accordance with the principles set out by the strategy, if decommissioning is required. The onshore decommissioning plan(s) would be developed in consultation with the relevant authority and in line with the latest available guidance, legislation and any new technologies at the time of the Proposed Development's decommissioning. The Onshore Decommissioning Plan(s) would include an assessment of the need to remove above ground infrastructure and the decommissioning of below ground infrastructure and include details relevant to flood risk (e.g. maintenance/reinstatement of existing land drainage), pollution prevention and avoidance of ground disturbance.

Date	Consultee and type of response	Issues raised	How and where considered in the ES
July 2024	Torridge District Council, section 42 response	Table 8.3: Additional relevant Devon and Torridge policies to be considered in the Chapter	Where relevant, additional polices have been added into **section 8.2** of this chapter.
		Table 8.15: Importance of the restoration of agricultural land so that it can return to productive agricultural use.	The Outline Soil Management Plan (document reference 7.7, Appendix D) submitted as part of the DCO application, contains measures to control stripping, storage and restoration of soils during the construction of the Proposed Development.
		Table 8.15: Proposal to prepare both an outline and more detailed Public Rights of Way (PRoW) management plan(s) is welcomed.	The Outline Public Rights of Way Management Plan (document reference 7.11) submitted as part of the DCO application, includes measures for the management of the PRoW network during the construction of the Proposed Development.
		8.8.24, 8.8.25 and 8.8.26: Concerns with regards to the amenity impacts of the construction of the proposed development on PRoW and other recreational resources.	The potential visual and noise impacts on PRoW during the construction of the Proposed Development are assessed in the Volume 4, Chapter 2: Landscape, Seascape and Visual Resources and Volume 2, Chapter 6: Noise and Vibration of the ES.
July 2024	Devon County Council Section 42 response	It is acknowledged that an Outline Onshore Construction and Environmental Management Plan (On-CEMP) will be submitted with the application for development consent and we would like to reiterate that any such plan shall include details of the measures being put in place to maintain access, where possible, to any affected routes during construction and detail how the applicant intends to ensure all Public Rights of Way legislation requirements are met should any routes require diversion or temporary closure.	The Outline Public Rights of Way Management Plan (document reference 7.11), submitted as part of the DCO application, includes measures for the management of the PRoW network during the construction of the Proposed Development.
October 2024	Devon County Council, meeting with PRoW Officers.	The following key items were presented for agreement: • The identification of PRoW located within the Order Limits. • The outline management measures proposed for each PRoW identified, including the requirement for a temporary diversion at Kenwith Stream and managed crossings.	The Outline Public Rights of Way Management Plan (document reference 7.11), submitted as part of the DCO application, includes measures for the management of the PRoW network during the construction of the Proposed Development.

8.4 Study Area

8.4.1 The DMRB LA109: Geology and Soils (Highways England *et al.,* 2019) and LA112: Population and Human Health (Highways Agency *et al.,* 2020b) provide broad guidance regarding a study area for the assessment of effects, referencing the extent and characteristics of a Proposed Development and the communities/wards affected in LA112 and the Onshore Infrastructure Area (including compounds and temporary land take) in LA109.

8.4.2 The study area for effects on recreation has taken into account the need to establish local travel patterns by rights of way/recreational users and to identify resources, such as land used by the community, that have the potential to be lost. Therefore, the recreation study area includes the Onshore Infrastructure Area as part of the Proposed Development as shown on Volume 1, Figure 1.2 (see Volume 1, Figures, of the ES), with account taken of any resources that lie immediately adjacent to the Proposed Development or link to it, together with any areas that may be required to mitigate for any temporary or permanent effects arising from the Proposed Development.

8.4.3 The agricultural assessment has been based on the agricultural land located within the Onshore Infrastructure Area together with the wider agricultural land holding associated with any land affected by the Proposed Development.

8.5 Scope of the Assessment

8.5.1 The scope of this ES has been developed in consultation with relevant statutory and non-statutory consultees as detailed in **Table 8.4** and **Table 8.5**.

8.5.2 The assessment considers the potential effects on land use and recreation during the construction and decommissioning phases.

8.5.3 Taking into account the scoping and consultation process, **Table 8.6** summarises the impacts considered as part of this assessment.

Table 8.6: Impacts considered within this assessment

Activity	Impacts scoped into the assessment
Construction Phase	
Best and Most versatile land	The permanent loss of agricultural land, including the Best and Most Versatile (BMV) land.
Farm Holdings	The temporary and permanent impact of disruption and reduced access to agricultural land.
Recreational Resources	The impact of disruption and reduced access to recreational resources landward of MHWS (e.g. access land, common land and village greens, PRoW, cycle routes, other recreational resources).
Decommissioning Phase	
Best and most versatile land	The permanent loss of agricultural land, including the BMV land.
Farm Holdings	The temporary and permanent impact of disruption and reduced access to agricultural land.
Recreational Resources	The impact of disruption and reduced access to recreational resources landward of MHWS (e.g. access land, common land and village greens, PRoW, cycle routes, other recreational resources.

8.5.4 Impacts that are not likely to result in significant effects have been scoped out of the assessment. A summary of the impacts scoped out, together with justification for scoping them out and whether the approach has been agreed with key stakeholders through either scoping or consultation, is presented in **Table 8.7**.

Table 8.7: Issues scoped out of the assessment

Impact	Justification
Operation and Maintenance	
The impact of disruption and reduced access to agricultural land during operation and maintenance phase	The impacts during the operation of the onshore development would be limited to maintenance and repair activities and would be small in magnitude, short term and infrequent. Any land impacted during maintenance and repair activities would be reinstated to its original condition, and the potential impact on agricultural land during operation and maintenance of the onshore infrastructure is therefore considered unlikely to result in significant effects and is proposed to be scoped out of the assessment.
The impact of disruption and reduced access to recreation resources (e.g., access land, common land, village greens, PRoW, cycle routes and other recreational resources) during operation and maintenance phase.	The impacts arising during the operation of the onshore development would be limited to maintenance and repair activities (e.g., investigation of onshore HVDC Cables) and would be small in magnitude, short term and infrequent. The potential impact on recreation resources during operation and maintenance of the onshore infrastructure is considered unlikely to result in significant effects and is proposed to be scoped out of the assessment.

8.6 Methodology

Relevant Guidance

8.6.1 The land use and recreation assessment has been undertaken in accordance with the methodology set out in Volume 1, Chapter 5: Environmental Impact Assessment Methodology, of the ES in addition to the following guidance, where appropriate:

- Design Manual for Roads and Bridges (DMRB) LA 109 Geology and Soils (Highways England *et al.,* 2020a);
- DMRB LA 112 Population and Human Health (Highways England *et al.*, 2020b);
- Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049) (Natural England, 2012);
- IEMA Guide: A New Perspective on Land and Soil in Environmental Impact Assessment (IEMA, 2022); and
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009).

Methodology for Baseline Studies

Desk Studies

8.6.2 The desk study was used to identify the following baseline information within the study areas:

- soil types and patterns of soils;
- the quality of agricultural land;
- nature and pattern of agricultural land holdings, including the type, purpose, composition, and distribution of agricultural land;
- land used by the community; and
- recreational facilities, including PRoW and other linear recreational routes.

8.6.3 Soil types and patterns of soils were derived from a variety of published soils data. The quality of agricultural land has been classified in accordance with the Ministry of Agriculture, Fisheries and Food (MAFF) Agricultural Land Classification (ALC) of England and Wales Revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988).

8.6.4 Land used by the community includes areas of public open space (e.g., parks, gardens, playgrounds, public beaches) and Common Land and village greens, which are either owned by the Local Authority, privately owned, or belong to the National Trust.

8.6.5 Recreational facilities include the coastal area, camp sites, caravan sites and visitor attractions. Relevant examples include linear routes such as National Trails, long distance footpaths and National Cycle Network (NCN) routes. The users of recreational facilities, PRoW and other linear routes have also been considered, including pedestrians, cyclists, and equestrians.

Site-Specific Surveys

8.6.6 RPS undertook ALC and soil survey work in connection with the Atlantic Array offshore wind farm project in 2011. This survey work identifies the physical characteristics soil profiles that, unless disturbed by other developments, would not have altered since 2011 and therefore remain *in situ*. The results of this survey work therefore remain valid for inclusion within this assessment.

8.6.7 This survey included lengths of Atlantic Array onshore cable route that are common to the Onshore HVDC Cable Corridor and Converter Site set out in Volume 1, Chapter 3: Project Description of the ES. Figure 8.1 (See Volume 2, Figures) shows the location of the soil survey points and Volume 2, Figure 8.2 shows the mapping of soil types along the sections of the route that have been included, Figure 8.3 shows the distribution of ALC gradings assigned to each observation included in the survey and Figure 8.3a shows the distribution of ALC grades located within the Converter Site.

8.6.8 In addition, walkover surveys were undertaken to establish the nature and condition of recreational facilities and routes located within the recreation study area. This included identifying issues that may occur where the Proposed Development would intersect recreational routes. For example, requirements for temporary stopping up and/or diversions during the construction phase and areas where access should be maintained via appropriate traffic management measures.

Impact Assessment Methodology

Overview

8.6.9 The approach to determining the significance of effects is a two-stage process that involves defining the magnitude of the impact and the sensitivity of the receptor. This section describes the criteria applied in this chapter to assign values to the magnitude of impacts and the sensitivity of the receptors. The terms used to define magnitude and sensitivity are based on relevant guidance, including the Design Manual for Roads and Bridges (DMRB) methodology (Highways England *et al*., 2020) where appropriate as described in further detail in Volume 1, Chapter 5: EIA Methodology of the ES.

8.6.10 The criteria for defining magnitude in this chapter have been taken from DMRB LA 109 Geology and Soils (Highways England *et al*., 2020a) and DMRB LA 112 Population and Human Health (Highways England *et al.,* 2020b).

Receptor Sensitivity/Value

8.6.11 The criteria for defining sensitivity in this chapter are outlined in **Table 8.8.**

Table 8.8: Sensitivity criteria

Sensitivity	Sub-topic	Definition
Very High	Agricultural land use	**Soils**: • ALC Grade 1 (excellent quality) agricultural land; and • ALC Grade 2 (very good quality) agricultural land.
		Agricultural land holdings: • land in which the enterprise is wholly reliant on the spatial relationship of land to key agricultural infrastructure; and • access between land and key agricultural infrastructure is required on a frequent basis (daily).
	Recreational resources	**Community land and assets**: • complete severance between communities and their land/assets with little/no accessibility provision; • alternatives are only available outside the local planning authority area; • the level of use is very frequent (daily); and • the land and assets are used by the majority (≥50%) of the community.
		Walkers, cyclists, and equestrians: • National trails and other linear routes likely to be used for both commuting and recreation that record frequent (daily) use. Such routes connect communities with employment land uses and other services with a direct and convenient route. Little/no potential for substitution. • Routes regularly used by vulnerable travellers such as the elderly, school children and people with disabilities, who could be disproportionately affected by small changes in the baseline due to potentially different needs. • Rights of way crossing roads at grade with >16,000 vehicles per day.
High	Agricultural land use	**Soils**: • ALC Grade 3a (good quality) agricultural land.

Sensitivity	Sub-topic	Definition
		Agricultural land holdings: • land in which the enterprise is dependent on the spatial relationship of land to key agricultural infrastructure; and • access between land and key agricultural infrastructure is required on a frequent basis (weekly).
	Recreational resources	**Community land and assets**: • there is substantial severance between communities and their land/assets, with limited accessibility provision; • alternative facilities are only available in the wider local planning authority area; • the level of use is frequent (weekly); and • the land and assets are used by the majority (≥50%) of the community.
		Walkers, cyclists, and equestrians: • regional trails and routes likely to be used for recreation and to a lesser extent commuting, that record frequent (daily) use; • Limited potential for substitution; and • rights of way crossing roads at grade with >8,000 – 16,000 vehicles per day.
Medium	Agricultural land use	**Soils**: • ALC Grade 3b (moderate quality) agricultural land.
		Agricultural land holdings: • land in which the enterprise is partially dependent on the spatial relationship of land to key agricultural infrastructure; and • access between land and key agricultural infrastructure is required on a reasonably frequent basis (monthly).
	Recreational resources	**Community land and assets**: • there is severance between communities and their land/assets, but with existing accessibility provision; • limited alternative facilities are available at a local level within adjacent communities; • the level of use is reasonably frequent (monthly); and • the land and assets are used by the majority (≥50%) of the community.
		Walkers, cyclists, and equestrians: • PRoW and other routes close to communities which are used for recreational purposes, but for which alternative routes can be taken; • these routes are likely to link to a wider network of routes to provide Options for longer recreational journeys; and • rights of way crossing roads at grade with >4,000 – 8,000 vehicles per day.
Low	Agricultural land use	**Soils**: • ALC Grade 4 (poor quality) agricultural land; and • ALC Grade 5 (very poor quality) agricultural land.
		Agricultural land holdings: • land in which the enterprise is not dependent on the spatial relationship of land to key agricultural infrastructure; and • access between land and key agricultural infrastructure is required on an infrequent basis (monthly or less).

Sensitivity	Sub-topic	Definition
	Recreational resources	**Community land and assets**: • Limited existing severance between communities and their land/assets, with existing full Disability Discrimination Act compliant accessibility provision; • alternative facilities are available at a local level within the wider community; • the level of use is infrequent (monthly or less frequent); and • the land and assets are used by a minority (≤50%) of the community.
		Walkers, cyclists, and equestrians: • routes which have fallen into disuse through past severance, or which are scarcely used because they do not currently offer a meaningful route for utility/recreational purposes; and • rights of way crossing roads at grade with <4,000 vehicles per day.
Negligible	Agricultural land use	**Soils**: • previously developed land with little potential to return to agriculture.
		Agricultural land holdings: • areas of land which are infrequently used on a non-commercial basis.
	Recreational resources	**Community land and assets**: • no or limited severance or accessibility issues; • alternative facilities are available within the same community; • the level of use is very infrequent (a few occasions yearly); and • the land and assets are used by a minority (≤50%) of the community.
		Walkers, cyclists, and equestrians: • N/A.

Magnitude of Impact

8.6.12 The criteria for defining magnitude in this chapter are outlined in **Table 8.9.**

Table 8.9: Impact magnitude criteria

Magnitude of impact	Sub-topic	Definition
High	Agricultural land use	**Soils**: • physical removal or permanent sealing of more than 20 hectares (ha) of agricultural land.
		Agricultural land holdings: • loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features, or elements (e.g., direct acquisition and demolition of buildings and direct development of land to accommodate highway assets); and • introduction (adverse) or removal (beneficial) of complete severance with no/full accessibility provision.

Magnitude of impact	Sub-topic	Definition
	Recreational resources	**Community land and assets**: • loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features, or elements (e.g., direct acquisition and demolition of buildings and direct development of land to accommodate highway assets); and • introduction (adverse) or removal (beneficial) of complete severance with no/full accessibility provision.
		Walkers, cyclists, and equestrians: • >500m increase (adverse) or decrease (beneficial) in journey length.
Medium	Agricultural land use	**Soils**: • physical removal or permanent sealing on 1 to 20 ha of agricultural land; and • permanent loss/reduction of one or more soil function(s) and restriction to current or approved future use.
		Agricultural land holdings: • partial loss of/damage to key characteristics, features, or elements (e.g., partial removal or substantial amendment to access or acquisition of land compromising the viability of agricultural holdings); and • introduction (adverse) or removal (beneficial) of severe severance with limited/moderate accessibility provision.
	Recreational resources	**Community land and assets**: • partial loss of/damage to key characteristics, features, or elements (e.g., partial removal or substantial amendment to access or acquisition of land compromising the viability of community assets); and • introduction (adverse) or removal (beneficial) of severe severance with limited/moderate accessibility provision.
		Walkers, cyclists, and equestrians: • >250m-500 m increase (adverse) or decrease (beneficial) in journey length.
Low	Agricultural land use	**Soils**: • temporary loss/reduction of one or more soil function(s) and restriction to current or approved future use.
		Agricultural land holdings: • a discernible change in attributes, quality or vulnerability, or alteration to one (maybe more) key characteristics, features, or elements (e.g., amendment to access or acquisition of land resulting in changes to the operating conditions that do not compromise overall viability of agricultural holdings); and • introduction (adverse) or removal (beneficial) of severance with adequate accessibility provision.
	Recreational resources	**Community land and assets**: • a discernible change in attributes, quality or vulnerability, or alteration to one (maybe more) key characteristics, features, or elements (e.g., amendment to access or acquisition of land resulting in changes to the operating conditions that do not compromise overall viability of community assets); and • introduction (adverse) or removal (beneficial) of severance with adequate accessibility provision.

Magnitude of impact	Sub-topic	Definition
		Walkers, cyclists, and equestrians: • >50 m – 250 m increase (adverse) or decrease (beneficial) in journey length.
Negligible	Agricultural land use	**Soils**: • no discernible loss/reduction in soil function(s) that restrict current or approved future use.
		Agricultural land holdings: • 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 agricultural holdings); and • very minor introduction (adverse) or removal (beneficial) of severance with ample accessibility provision.
	Recreational resources	**Community land and assets**: • 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 community assets); and • very minor introduction (adverse) or removal (beneficial) of severance with ample accessibility provision.
		Walkers, cyclists, and equestrians: • <50 m increase (adverse) or decrease (beneficial) in journey length.
No change	Agricultural land use	**Soils**: • no loss/reduction of soil function(s) that restrict current or approved future use.
		Agricultural land holdings: • no loss or alteration of characteristics, features, or elements or accessibility; no observable impact in either direction.
	Recreational resources	**Community land and assets**: • no loss or alteration of characteristics, features, elements, or accessibility; no observable impact in either direction.
		Walkers, cyclists, and equestrians: • no loss or alteration of characteristics, features, elements, or accessibility; no observable impact in either direction.

8.6.13 For the assessment of the duration of land use and recreation effects, the following time periods have been applied.

- short term: a period of months, up to one year;
- medium term: a period of more than one year, up to five years;
- long term: a period of greater than five years; and
- permanent: an impact that occurs throughout the operational lifetime of the Proposed Development.

Significance of Effect

8.6.14 The significance of the effect upon land use and recreation has been determined by taking into account the sensitivity of the receptor and the magnitude of the

impact. The method employed for this assessment is presented in **Table 8.10**. Where a range of significance levels is presented, the final assessment for each effect is based upon expert judgement.

8.6.15 In all cases, the evaluation of receptor sensitivity, impact magnitude and significance of effect has been informed by professional judgement and is underpinned by narrative to explain the conclusions reached.

8.6.16 For the purpose of this assessment, any effects with a significance level of minor or less are not considered to be significant in terms of the EIA Regulations.

Table 8.10: Assessment Matrix

Sensitivity of Receptor	Magnitude of Impact			
	Negligible	Low	Medium	High
Negligible	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	Negligible or Minor	Minor	Moderate	Moderate or Major
High	Minor	Minor or Moderate	Moderate or Major	Major
Very High	Minor	Moderate or Major	Major	Major

8.6.17 Where the magnitude of impact is 'no change', no effect would arise.

8.6.18 The definitions for significance of effect levels are described as follows:

- Major: These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also enter this category. Effects upon human receptors may also be attributed this level of significance.
- Moderate: These beneficial or adverse effects have the potential to be important and may influence the key decision-making process. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse or beneficial effect on a particular resource or receptor.
- Minor: These beneficial or adverse effects are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.
- Negligible: No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.
- No change: No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Assumptions and Limitations of the Assessment

8.6.19 The assessment with respect to agricultural land and soil is based on desk-based information together with soils data that was collected by RPS in 2011 in connection with the Atlantic Array proposal. This soils data are presented in Volume 2, Appendix 8.1: Soil Survey and Agricultural Land Classification Data, of the ES. The data collected in connection with the Atlantic Array proposal are still

valid for the assessment of soil resources and ALC within the Order Limits as the soil physical characteristics recorded in the survey remain in situ.

8.6.20 However, further soil and ALC survey within the land use study areas requiring permanent land take within the Onshore Infrastructure Area has not been possible during the preparation of the ES. It has therefore been assumed, until detailed survey is possible, that those areas of the permanent Onshore infrastructure Area that have not been surveyed could, on a worst-case basis, comprise areas of the best and most versatile Subgrade 3a land.

8.6.21 The results of soil and ALC survey work have informed the development of the Outline Soil Management Plan (document reference 7.7, Appendix D). The Outline Soil Management Plan includes the commitment to undertaking further detailed soil survey of the land within the Converter Site to confirm the distribution of soil types to be affected during construction. Soil surveys would be undertaken at the Converter Site prior to the commencement of construction, which would inform the development of the detailed Soil Management Plan(s).

8.7 Baseline Environment

Desk Study

8.7.1 Information on land use and recreation within the study area was collected through a detailed review of existing studies and datasets. These are summarised in **Table 8.11**.

Table 8.11: Summary of desk study sources used

Title	Source	Year	Author
Agricultural Land Classification Grades – Post 1988 (England).	Natural England	2017	Natural England
Defra – Agricultural Annual Statistics on structure of the agricultural industry at 1 June 2021.	Defra	2022	Defra
CRoW Act 2000 – Access Layer - land mapped as Access Land under the CRoW Act 2000	Natural England	2024	Department For Environment, Food and Rural Affairs (Defra)
CRoW Act 2000 – Section 4 Conclusive Open Country - land mapped as Conclusive Open Country under the CRoW Act 2000.	Natural England	2024	Department For Environment, Food and Rural Affairs (Defra)
Meteorological Office Climatological Data for ALC. Gridpoint datasets of climatic variables, at 5 km intervals for England and Wales.	The Meteorological Office	1989	The Meteorological Office Soil Survey and Land Research Centre
Multi-agency Geographic Information for the Countryside (MAGIC).	MAGIC	2024	Defra
National Trails mapping data.	National Trails	2024	National Trails
NCN map data of signed paths and routes for walking, wheeling, cycling and exploring outdoors.	Sustrans	2024	Sustrans
Ordnance Survey (OS) map data, including Open Green Space and Golf Courses.	Ordnance Survey	2024	Ordnance Survey
Torridge District Council Main Interactive Map – Public Rights of Way	Torridge District Council	2024	Torridge District Council

Title	Source	Year	Author
Provisional ALC (England).	Natural England	2017	Natural England
Soils and their use in South West England (Sheet 5)	Soil Survey of England and Wales	1984	Soil Survey of England and Wales

Soils and Agricultural Land Classification

Desk Top Information – Geology and Soils

8.7.2 The source of published information on the soils is the relevant sheet of the 1:250,000 scale National Soil Map (Sheet 5 South West England). This shows geographic groupings of soils called Soil Associations, usually related to specific parent materials and named after the particular soil series which most typifies it, even though this may be found only in parts of the association.

8.7.3 Figure 8.4: Soil Associations (Volume 2, Figures) shows the distribution of the main soil types within the land use and recreation study area.

8.7.4 The Association 541k Denbigh 2 occurs in areas underlain by the Bideford and Crackington Formations, i.e., the areas underlain mainly by mudstones and siltstones, and Association 611c Manod where the bedrock is the Bude Formation i.e., mainly but not entirely consisting of sandstones.

8.7.5 The Denbigh 2 Association is described as a collection of mainly 'well drained fine loamy soils over slaty mudstone and siltstone. Some fine loamy soils variably affected by groundwater'. In this description 'fine loamy' means medium to heavy textures such as clay loam or silty clay loam.

8.7.6 The Manod Association similarly has mainly 'well drained fine loamy or fine silty soils over rock (usually slate mudstone or siltstone)'.

8.7.7 Also shown within the study area are soils of the Association 514h Neath. This is described as a collection of mainly 'well drained fine loamy soils often over rock (Carboniferous sandstone and shale). Small patches of similar soils with slowly permeable subsoils and slight seasonal waterlogging'. It comprises soils essentially similar to those of the Denbigh and Manod Associations but with the possibility of some less well drained soil profiles because of slowly permeable subsoils, usually caused by heavier, more clayey textures at depth.

8.7.8 There are also two areas of Association 712e Hallsworth 2 shown within the study area which is described as a collection of mainly 'slowly permeable seasonally waterlogged clayey, fine loamy and fine silty soils' developed in drift from Carboniferous sandstone and shale.

Desk Top Information – Climatic Data

8.7.9 Site specific climatic data is taken from the Met Office 1989 Climatic Data for ALC dataset for a number of points within the study area to enable specific ALC limitations to be assessed within the 1988 ALC system. Data for representative locations is contained in **Table 8.12** below.

Table 8.12: Key receptors taken forward to assessment

Data	Reference Point 1	Reference Point 2	Reference Point 3	Reference Point 4	Reference Point 5
Grid Reference	SS 414278	SS 417263	SS 251243	SS 481248	SS 491 248
Altitude (m)	30	70	90	125	150
Average Annual Rainfall (mm)	1010	1063	1002	1009	1008
Accumulated Temperature (day degrees)	1562	1517	1494	1453	1424
Moisture Deficit for Wheat (mm)	95	88	84	82	80
Moisture Deficit for Potatoes (mm)	86	77	72	68	65
Field Capacity Duration (days)	207	217	203	206	205
Maximum ALC Grade for climate	1	1	1	1 (but close to Grade 2)	2 (but close to Grade 1)

Desk Top Information – Published ALC data

8.7.10 The provisional ALC mapping at a scale of 1:250,000 published in the 1960s and 1970s within the study area is shown on Figure 8.5: Provisional ALC Mapping (Volume 2, Figures).

8.7.11 The whole of the proposed route runs over undifferentiated Grade 3 land except for some Grade 4 in the vicinity of the A39 corresponding to the area subsequently identified as the Hallsworth 2 Association on the National Soil Map and to the east of Winscott Barton and also close to Hallsannery.

8.7.12 Since the publication of the 1:63,360 Provisional ALC maps there has been a major revision to the ALC system in 1988 and further detailed survey has been undertaken in the vicinity by DEFRA, as shown on Figure 8.6: Detailed (Post 1988) ALC Mapping (Volume 2, Figures). The survey work includes an area of land within the study area to the west of Woodville Farm, which comprises mainly Subgrade 3a land with a smaller area of Subgrade 3b.

8.7.13 Overall, these detailed surveys have identified a mixture of Subgrade 3a and Subgrade 3b has been found, with limited area of Grade 2 and Grade 4.

8.7.14 As noted above, the overall climate poses no direct limitation other than on the highest ground in the extreme east which is limited to Grade 2. However, some of the land closest to the coast is downgraded to no better than Subgrade 3a because of exposure.

Site Survey

Soils

8.7.15 The auger boring survey of the soils undertaken in connection with the Atlantic Array project and covering significant areas of land within the Onshore Infrastructure Area has identified six main types of soils:

1. Well drained, relatively shallow clay loam soils over shaley mudstone and siltstone, corresponding more or less to the Powys series, a common component of the Denbigh 2 and Manod Associations;
2. Well drained, deeper clay loam soils over shaley mudstone and siltstone, corresponding more or less to the Denbigh series, the dominant component of the Denbigh 2 Association but also common within the Manod Association;
3. Well drained, deeper clay loam soils over sandstone, corresponding more or less to the Neath series, the dominant component of the Neath Association;
4. Well drained, stony clay loams soils over sandstone, the shallow phase of the Neath association;
5. Clay loam soils with slight seasonal waterlogging due to slowly permeable subsoils at depth, corresponding more or less to the Nercwys series a common component of the Neath Association;
6. Poorly drained soils with prominently mottled, slowly permeable clayey subsoils corresponding more or less to the Hallsworth series, the dominant component of the Hallsworth 2 Association. Descriptions of typical profiles of each of these are presented below:

Powys series (Ph)

8.7.16 Consists of a dark brown, moderately to very stony, clay loam topsoil more or less directly over *in situ* weathering shale, mudstone or siltstone, but sometimes with an insignificantly thin brown, stony, clay loam subsoil.

Denbigh series (Dg)

8.7.17 Consists of a dark brown, slightly stony, clay loam topsoil over a brown, slightly to moderately stony, clay loam subsoil with a good structure, passing down into yellowish brown, very stony, clay loam often with a poorer structure or to *in situ* weathering shale, mudstone or siltstone at depths between about 40 and 80 cm from the surface.

Neath series (Nh)

8.7.18 Consists of a dark brown, moderately stony, clay loam topsoil over a yellowish brown, moderately stony, clay loam subsoil, passing down into a very stony, clay loam, sandy clay loam or *in situ* sandstone bedrock within about 80 cm from the surface.

Neath series (Nh) stony phase

8.7.19 Consists of a dark brown, moderately stony clay loam topsoil over a stony sandstone layer within 40 cm.

Nercwys series (Nc)

8.7.20 Consists of a dark brown, slightly stony, clay loam topsoil over a yellowish brown, slightly stony, clay loam subsoil which becomes denser, less well structured and mottled at depths below about 40 cm from the surface (Slowly Permeable Layer). Around Bideford such a soil would be in Wetness Class III on a scale ranging from I (well drained) to VI (very poorly drained).

Hallsworth series (Hk)

8.7.21 Consists of a dark greyish brown, slightly stony, clay loam topsoil, sometimes with ochreous mottles over a yellowish brown, prominently mottled, slightly stony, clay subsoil (Slowly Permeable Layer). This becomes greyer, denser and less well structured with depth. Around Bideford such a soil would be in Wetness Class IV on a scale ranging from I (well drained) to VI (very poorly drained).

8.7.22 Appendix 8.1 (See Volume 2, Appendices, of the ES) contains summary tables of the auger borings, providing the characteristics and assigned soil type for each observation, together with soil pit descriptions from the survey work undertaken by RPS in connection with Atlantic Array.

Agricultural Land Classification

8.7.23 The distribution of ALC grades identified at each auger boring location recorded within the 2011 survey work are shown on Volume 2, Figure 8.3: Agricultural Land Classification (Volume 2 Figures) and the distribution of ALC grades within the area of the Converter Site included in this survey in shown on Volume 2, Figure 8.3a: Agricultural Land Classification - Converter Site.

8.7.24 Within the 2011 survey area, slopes along most of the proposed route are gentle or moderate and in themselves pose no agricultural limitations except immediately east of the River Torridge (where land would be Grade 4 due to excessively steep slopes) and a few other short stretches elsewhere on the sides of smaller valley features which are graded 3b or 4 according to the classification system.

8.7.25 As far as the soils are concerned, limited depth and stone content limit much of the land to be graded no better than Subgrade 3a. The shallowest and stoniest, where topsoil stone contents of more than 2 cm in diameter are greater than 15%, would be limited to Subgrade 3b due to the direct effects of the stone content on cultivation and also because of these shallow and stony profiles being prone to summer droughtiness even in such a relatively high rainfall area.

8.7.26 In the central and eastern parts of the survey area, soils less than about 40 cm deep over weathered rock would be no better than Grade 3a (these would need to be at a depth of 60 cm+ to be Grade 2), while in the lower rainfall areas soils need to comprise more than 50 cm soil of depth to be in Subgrade 3a, otherwise they would fall within Subgrade 3b.

8.7.27 In addition, many of the soils on the site are affected by soil wetness and associated cultivation difficulties. Where soils comprise medium clay loam topsoils and no signs of impeded drainage, these profiles are classified as Wetness Class I and are eligible for Grade 2 on the basis of soil wetness. However, where topsoils comprise heavy clay loams these can be graded no higher than Grade 3b according to soil wetness.

8.7.28 Where there are any signs of impeded drainage, a lower grading applies. Nercwys series (Wetness Class III) and the Hallsworth series (Wetness Class IV) are no better than Subgrade 3b.

8.7.29 Within the area of the Converter Site, the area of land included within the survey which is characterised by poorly drained soils of the Hallsworth series, is graded lower quality Subgrade 3b and Grade 4. Where the better drained soils of the Denbigh soil Association are encountered Subgrade 3a is identified. The distribution of ALC grades within this area, based on the 2011 survey work is therefore as follows.

Table 8.13: Agricultural Land Classification – Converter Site

ALC Grade	Area (ha)	%
Subgrade 3a	3.5	9
Subgrade 3b	7.6	19
Grade 4	13.0	33
Not Surveyed	15.3	39
Total	**39.4**	**100**

Farm Holdings

8.7.30 The Defra England geographical breakdown series of data (Defra, 2021) provides local authority statistical data for agriculture in England. The land use study area contains land within the administrative areas of Torridge District and South West England. The types of agricultural land use within these authority areas compared to those for England as a whole are summarised in **Table 8.14** below.

Table 8.14: Types of Agricultural Land Use within the study area

Area	Cereals (ha)	%	Arable Crops excluding cereals (ha)	%	Fruit and Vegetables	%	Grassland	%
Torridge District	8,543	12	3147	4	147	<1	60,714	84
South West England	319,453	20	142,476	9	9,911	<1	1,140,014	71
England	2,691,749	33	1,053,858	13	119,104	1	4,313,954	53

8.7.31 The statistics identify that Torridge District has a very high percentage of agricultural grassland (84%) compared to the areas within the wider South West Region (71%) and England as a whole (53%).

8.7.32 The area of Torridge District, as the data identifies, is dominated mainly by grassland-based livestock and mixed farming enterprises (beef, dairy and sheep).

8.7.33 The published statistics therefore indicate that the Onshore Infrastructure Area would be expected to be characterised mainly by livestock or mixed farming enterprises, with some dairying activity and with limited areas of arable land.

8.7.34 Volume 2, Figure 8.7: Agricultural Landholdings identifies the pattern of landholdings within the study area based on published land registry data examined in August 2024.

8.7.35 This shows that there are at least 52 known areas of interest that would be affected by the Proposed Development, comprising mainly livestock based holdings.

Recreation

The Coast

8.7.36 There are no areas of statutory access land designated under the Countryside and Rights of Way Act 2000 or other legislation within the study area. The beach at Cornborough Range is publicly accessible via the coastal path (See Volume 2, Figure 8.8: Public Rights of Way, Other Routes and Recreational Facilities) from Westward Ho! to the north or from the south and is used by the local population and tourists. Surfers also use the coastal path to access the beach. Land outside the study area at Kipling Tors to the north and at Abbotsham Cliff to the south is under the ownership of the National Trust.

Recreational Facilities

8.7.37 No recreational facilities, except for the section of beach described above in **paragraphs 8.7.36** and the PRoW described below in paragraphs **8.7.39** – **8.7.41** are located within the Onshore Infrastructure Area. The Bideford and District Angling Club coarse fishing lake and access to it from Gammaton Road lie immediately adjacent to the Onshore HVDC Cable Corridor as shown on Figure 8.8: Public Rights of Way, Other Routes and Recreational Facilities (See Volume 2, Figures).

8.7.38 The following facilities are not located on or immediately adjacent to the Onshore HVDC Cable Corridor or Converter Site but are also considered within this assessment in terms of the potential for disruption that may arise to these facilities as a result of the Proposed Development.

- 'The 'Big Sheep' farm and theme park located just off the A39 at Abbotsham. The facility is a member of Devon's Top Attractions and is known as one of the best family tourist attractions in the county offering indoor and outdoor activities for children and adults;
- The Atlantic Village Outlet shopping complex and Atlantis Adventure Park located to the east of the A39 at Abbotsham Cross;
- Jennetts Reservoir, to the south of Bideford is a South West Lakes Trust coarse fishery facility open all year round by permit; and
- Gammaton Reservoirs near Gammaton Barton, comprising two spring fed and stream fed reservoirs open for fishing by day ticket.

Public Rights of Way and Recreational Routes

8.7.39 North Devon contains an extensive network of public footpaths and bridleways, some of which are within or proximate to the study area. These, together with the network of local roads in the area, are used for pedestrian, equestrian and cycling

activities. The location of these routes are shown on Figure 8.8: Public Rights of Way, Other Routes and Recreational Facilities (See Volume 2: Figures).

8.7.40 At the Landfall, the Onshore HVDC Cable Corridor would pass beneath the South West Coast Path by the use of Horizontal Directional Drilling (HDD) or other trenchless techniques. The path is a National Trail running for 630 miles along the coast from Minehead on the edge of the Exmoor National Park to Poole Harbour in Dorset. At this location, there is a fence line between the footpath and the adjoining farmland on the inland side. A number of shorter walks are promoted along this section of the South West Coast Path between Westward Ho! and Clovelly, including Devon County Council's Walk 13 (Kingsley, Kipling and a Horizontal Cliff Railway), which partly runs along the former line of the Bideford, Westward Ho! and Appledore Railway.

8.7.41 Inland from the Landfall, the following PRoW and recreational routes cross or are proximate to the Onshore HVDC Cable Corridor (see Figure 8.8: Public Rights of Way, Other Routes and Recreational Facilities (See Volume 2, Figures)):

- Abbotsham Footpath 4 runs south east from its junction with the South West Coast Path (Abbotsham Footpath 7) and then east to the north of Abbotsham Court up to the local road at Abbotsham Lodge.
- Abbotsham Footpath 5 to the north of Rickards Down that runs westwards from North Down Road.
- Rocky Lane is used for access to connect Rickards Down towards Abbotsham.
- Abbotsham Footpath 2 runs along the edge of two fields from the local road to the east of Rixlade Farm to the local road at Chaltaborough, north west of Abbotsham.
- Alwington Footpath 3: to the north of Winscott;
- Alwington Bridleway 12: to the east of Winscott the Onshore HVDC Cable Corridor crosses the local road close to its junction with this bridleway which is just outside the study area;
- A green lane connecting equestrian based properties in Bideford towards the Yeo Valley
- Bideford Bridleway 9 is promoted as a recreational route to the north of the Onshore HVDC Cable Corridor at Ashridge Barton outside the study area but linking into the local roads crossed by the Onshore HVDC Cable Corridor at West Ashridge;
- The Tarka Trail runs along the east bank of the River Torridge south of Bideford. The Onshore HVDC Cable Corridor would pass beneath this route (by use of HDD) to the north of Lodge Plantation. The Trail forms part of Devon's Cycling Coast to Coast Route between Ilfracombe and Plymouth and between Braunton and Meeth provides over 30 miles of well surfaced off-road cycle path utilising the route of the former railway line. In addition to cyclists, the trail is well used by walkers and dog walkers and due to the shallow gradients is also suitable for disabled visitors or visitors with pushchairs. Horse riding is not currently allowed along this stretch of the Trail. Picnic tables and benches are located along this section of the Trail and boardwalks and interpretation boards have been erected in the salt marshes next to the river.
- National Cycle Route 27. This route comprises 80 miles of cycle route from Ilfracombe to Plymouth and includes the 30 mile traffic free Tarka Trail as part of the route.

- Alverdiscott Footpath 1 runs north from the road between Webbery Barton and Stony Cross running to the east of Webbery. The footpath does not lie within the Order Limits but lies immediately to the north of it.

Future Baseline Conditions

8.7.42 Schedule 4, paragraph 3 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require that '*an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge'* is included within the ES. This section provides an outline of the likely future baseline conditions in the absence of the Proposed Development.

8.7.43 Based on the information available to date, no significant changes to the baseline conditions are anticipated with respect to land use and recreation. Although additional recreational resources (e.g., recreational facilities) may be created in the future, the location and nature of these recreational resources cannot be accurately predicted for the purposes of the assessment.

8.7.44 With regard to future land use, some areas of land within the study areas are allocated for future development. The potential cumulative effects between the Proposed Development and other proposed developments are considered in **section 8.13** of this chapter.

Key Receptors

8.7.45 **Table 8.15** identifies the receptors taken forward into the assessment.

Table 8.15: Key receptors taken forward to assessment

Receptor	Description	Sensitivity/Value
Agricultural Land Quality		
Best and most versatile agricultural land	Area classified as ALC Grade 1 agricultural land.	Very High
	Area classified as ALC Grade 2 agricultural land.	Very High
	Area classified as ALC Grade 3a agricultural land.	High
Other ALC Grades of land	Area classified as ALC Grade 3b agricultural land.	Medium
	Area classified as ALC Grade 4/5 agricultural land.	Low
Agricultural Land Holdings		
Agricultural land holdings	Agricultural land holding(s) where the enterprise is wholly reliant on the spatial relationship of land to key agricultural infrastructure; and access between land and key agricultural infrastructure is required on a frequent basis (daily).	Very high
	Agricultural land holding(s) where land in which the enterprise is dependent on the spatial relationship of land to key agricultural infrastructure; and access	High

Receptor	Description	Sensitivity/Value
	between land and key agricultural infrastructure is required on a frequent basis (weekly).	
	Agricultural land holding(s) where land in which the enterprise is partially dependent on the spatial relationship of land to key agricultural infrastructure; and access between land and key agricultural infrastructure is required on a reasonably frequent basis (monthly).	Medium
	Agricultural land holding(s) where land in which the enterprise is not dependent on the spatial relationship of land to key agricultural infrastructure; and access between land and key agricultural infrastructure is required on an infrequent basis (monthly or less).	Low
	Areas of land which are infrequently used on a non-commercial basis.	Negligible
Recreation		
Beach	Cornborough Ranges	High
Coastal Path, NCRs and Long Distance Paths	Coastal Path	Very High
	Tarka Trail	
	NCR 27	
Other PRoWs and access routes	Multiple designated PRoW, including footpaths and bridleways that intersect the recreation study area	Medium – High (bridleways)
Other recreational resources		
Bideford and District Angling Club	Coarse fishing lakes	Medium

8.8 Mitigation Measures Adopted as Part of the Proposed Development

8.8.1 For the purposes of the EIA process, the term *'measures adopted as part of the Proposed Development'* is used to include the following types of mitigation measures (adapted from IEMA, 2016). These measures are set out in Volume 1, Appendix 3.1: Commitments Register of the ES.

- Embedded mitigation. This includes the following.
  - Primary (inherent) mitigation - measures included as part of the Proposed Development design. IEMA describes these as '*modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project and do not require additional action to be taken'*. This includes modifications arising through the iterative design process. These measures will be secured through the consent itself through the description of the project and the parameters secured in the DCO and/or marine licences. For example, a reduction in footprint or height.

  - Tertiary (inexorable) mitigation. IEMA describes these as '*actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects*'. It may be helpful to secure such measures through a Construction Environmental Management Plan or similar.

- Secondary (foreseeable) mitigation. IEMA describes these as '*actions that will require further activity in order to achieve the anticipated outcome'*. These include measures required to reduce the significance of environmental effects (such as lighting limits) and may be secured through environmental management plans.

8.8.2 In addition, where relevant, measures have been identified that may result in enhancement of environmental conditions. Such measures are clearly identified within Volume 1, Appendix 3.1: Commitments Register of the ES. The measures relevant to this chapter are summarised in **Table 8.16**.

8.8.3 Embedded measures that will form part of the final design (and/or are established legislative requirements/good practice) have been taken into account as part of the initial assessment presented in **section 8.10** to **8.12** below (i.e., the initial determination of impact magnitude and significance of effects assumes implementation of these measures). This ensures that the measures to which the Applicant is committed are taken into account in the assessment of effects.

8.8.4 Where an assessment identifies likely significant adverse effects, further or secondary mitigation measures may be applied. These are measures that could further prevent, reduce and, where possible, offset these effects. They are defined by IEMA as actions that will require further activity in order to achieve the anticipated outcome and may be imposed as part of the planning consent, or through inclusion in the ES (referred to as secondary mitigation measures in IEMA, 2016).

Table 8.16: Mitigation measures adopted as part of the Proposed Development

Commitment Number	Measure Adopted	How the Measure Will be Secured
Embedded Tertiary Measures		
ONS11	An Outline Soil Management Plan has been prepared as part of the Outline On-CEMP, which forms a part of the application for development consent (document reference 7.7, Appendix D). A Soil Management Plan(s) would be developed in accordance with the Outline Soil Management Plan. Measures to be adopted as far as reasonably practicable would include: • Separate stripping and storage of identified topsoil and subsoil resources to prevent mixing of soil materials which can reduce overall soil quality. • Location of topsoil and subsoil stockpiles to avoid cross-contamination of materials and the trafficking of soil stockpiles by construction traffic. • Maintenance of topsoil and subsoil heaps to reduce potential losses of soil materials throughout the duration of storage (e.g. maintaining soil heaps to prevent it blowing away in the wind, or spilling into drainage ditches).	DCO Schedule 2, Requirement 7 (Management Plans)

Commitment Number	Measure Adopted	How the Measure Will be Secured
	• Control of the timing of soil handling operations to reduce potential soil damage through handling in unsuitable conditions (e.g. avoiding the movement of soil in periods of severe wet weather). • Choice of soil handling machinery and method for its use, to reduce potential for soil compaction and soil damage. • Implementation of appropriate soil aftercare following reinstatement of land in accordance with the Outline Soil Management Strategy. • Careful supervision of soil handling operations on site to ensure that recognised good practice is effectively implemented on site.	
ONS35	The application of measures to maintain the operation of the farm holdings would include where reasonably practicable the following: • The maintenance and reinstatement of existing water supplies and drainage systems following construction. • The maintenance of access routes across individual fields where these are severed during construction. • The maintenance of farm access routes between fields within a farm holding • Appropriate fencing of the construction work areas within the Onshore Infrastructure Area, dependent upon the nature of the individual farm holding affected. • Appropriate construction practices to be implemented to ensure that the potential risk for the spread of animal and plant diseases is reduced where reasonably practicable. • Timing of construction works, where feasible, to minimise disruption to landowners/farming practice, through consultation with landowners.	DCO Schedule 2, Requirement 7 (Management plans)
ONS09	An Outline Public Rights of Way (PRoW) Management Plan has been prepared as part of the application for development consent (document reference 7.11). PRoW Management Plan(s) would be developed in accordance with the Outline PRoW Management Plan and would include measures to manage and mitigate as far as reasonably practicable the impacts and disturbance to the PRoW network during the construction phase of the Proposed Development, in consultation with the relevant authorities.	DCO Schedule 2, Requirement 7 (Management Plans)
ONS32	An Outline Onshore Construction Environmental Management Plan (On-CEMP) has been prepared as part of the application for development consent (document reference 7.7). On-CEMP(s)) will be developed to align with the prepared Outline On-CEMP. The On-CEMP(s) will incorporate measures to ensure that any potential environmental impacts would be minimised during construction as far as reasonably practicable. The On-CEMP(s) will include measures to maintain and address the following topics:	DCO Schedule 2, Requirement 7 (Management plans)

Commitment Number	Measure Adopted	How the Measure Will be Secured
	• ecology and nature conservation (including protected species and invasive species); • surface water and groundwater environment (including flood protection and control, drainage, and pollution prevention); • transport and access; • noise management measures; • air quality and dust management; • land use and recreation; • landscape and visual; • historic environment; • climate change; • waste management; • site security; and • health and safety.	
ONS04	An Outline Decommissioning Strategy has been submitted as part of the application for development consent (document reference 7.17), which details that onshore and offshore decommissioning plans will be prepared in accordance with the principles set out in the Outline Decommissioning Strategy, if decommissioning of the Proposed Development is required at the end of the Proposed Development's operational life. The onshore decommissioning plan(s) will be developed in consultation with the relevant authority and in line with the latest available guidance, legislation and any new technologies available at the time of the Proposed Development's decommissioning. The onshore decommissioning plan(s) will include an assessment of the need to remove above ground infrastructure and the decommissioning of below ground infrastructure and include details relevant to flood risk (e.g. maintenance/reinstatement of existing land drainage), pollution prevention and avoidance of ground disturbance. The onshore decommissioning plan(s) will also include provision for the protection (during decommissioning) of any significant archaeological remains within the Onshore Infrastructure Area which were identified and protected from harm during construction.	DCO Schedule 2, Requirement 16 (Decommissioning Strategy)

8.9 Key Parameters for Assessment

Maximum Design Scenario

8.9.1 The maximum design scenarios identified in **Table 8.17** have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. These scenarios have been selected from the information provided in Chapter 3: Project Description of the ES. Effects of greater adverse significance are not predicted to arise should any other development scenario, based on details within the Project Design Envelope (e.g. different infrastructure layout), to that assessed here be taken forward in the final design. Therefore, this comprises a conservative assessment of a worst case scenario.

Table 8.17: Maximum design scenario considered for the assessment of impacts

Potential Impact	Phase[1]			Maximum Design Scenario	Justification
	C	O	D		
The temporary loss of best and most versatile land The permanent loss of best and most versatile land	✓	✗	✗	**Construction phase Landfall** • HDD: The maximum number of cable ducts will be six, with an HDD length of 2,110 m. The maximum number of exit pits are four. • The maximum number of transition joint bays will be two, with a total maximum permanent area of 150 m^2 associated with the ground level covers. • HDD: A landfall working compound of 10,000 m^2. Duration of installation of up to 18 months in the initial phase, with six months in the second phase, following a gap in works at the landfall (for pulling through offshore HVDC cables for Bipole 2). The total duration of the compound would be 36 months. **Construction phase: onshore HVDC Cables** • The number of trenches will be two, with an approximate trench depth of 1.4 m. • Construction corridor width 65 m, with a length of up to 14.5 km. There will be up to 34 joint bays and 34 link boxes, with 140 m^3 and 3.15 m^3 of material excavated for each joint bay and link box respectively. • Duration of installation of up to 36 months. • The maximum number of HDD locations is 6 (including HDD at Landfall). Each major HDD location will have two compounds, measuring up to 10,000 m^2. Drilling mud will be stored and used at these compounds. • HDD to be used beneath River Torridge, Kenwith Stream and unnamed stream south of Jennets reservoir. **Construction phase: converter stations** • Maximum number of converter stations is two, which would have a combined footprint of 130,000 m^2. • Converter station foundations may be piled.	All major crossings, such as major roads, river and rail crossings will be undertaken using HDD or other trenchless techniques, where practicable. HDD or alternative trenchless techniques will be used to install the Landfall under the Coastal Path and to install the River Torridge Crossing under the Tarka Trail and NCR 27. Elsewhere, open cut trenching represents the largest physical impact and greatest area of agricultural land loss, both temporary and permanent, compared to trenchless techniques beneath a feature. Open cut in areas of PRoW is the worst case scenario for recreational path users, compared to HDD beneath the PRoW. As such, where options remain, open cut trenching represents the maximum design scenario for agricultural land use and recreation. The maximum design scenario is represented by the largest permanent footprint for the converter stations which represents the largest physical impact and greatest area of
The temporary disruption caused to the operation of farm holdings	✓	✗	✗		

Potential Impact	Phase[1]			Maximum Design Scenario	Justification
	C	O	D		
The permanent disruption caused to the operation of farm holdings	✓	✓	✓	• Temporary converter station compound footprint: 20,000 m^2 (additional to permanent footprint). • Duration: 72 months. **Construction phase: HVAC Cables** • The maximum number of trenches will be four, with an approximate depth of 1.4 m. • The working area will include a construction corridor width of 32.5 m per Bipole (65 m total), with a length of up to 1.2 km. Duration of installation of up to 6 months per Bipole. **Construction: Highways improvements and site access** • Temporary widening of Gammaton Road between Manteo Way and the Gammaton Road compound access. • Permanent widening along Gammaton Road in selective locations (south side only). • Reserved rights to install a temporary junction west of Gammaton Moor Crossroads and a section of private temporary track connecting Gammaton Road with the unnamed road to the Converter Site. • Permanent widening of the unnamed road north of Gammaton Crossroads towards the Converter Site access. • Creation of accesses to Onshore HVDC Cable Corridor construction sites including: – Sewage Treatment Works access road: expanded junction and widened private track. – A39 West: A compound access will be created off the unnamed road to Abbotsham approximately 120m west of the A39 Abbotsham Cross roundabout. – A39 East: A site access will be created on the unnamed road towards Littleham approximately 165m south of Clovelly Road. – A386: this includes the improvement of an existing junction along the A386 with an unnamed road towards Littleham. – Gammaton Road Compound: a new access will be created approximately 70 m east of Tennacott Lane.	agricultural land loss, both temporary and permanent.
The temporary impact on the recreational use of Coastal Areas	✓	✗	✗		
The temporary impact on the recreational use of recreational resources	✓	✗	✗		
The temporary impact on the recreational use of the South West Coast Path and the Tarka Trail (National Cycle Route)	✓	✗	✗		

Potential Impact	Phase[1]			Maximum Design Scenario	Justification
	C	O	D		
				Construction: all elements • Construction compounds will be prepared by removing and storing topsoil and subsoil and then constructing hardstanding areas using clean crushed stone. • Temporary dewatering of export trenches, joint bays and link boxes will be required where shallow groundwater is encountered. **Operation and maintenance phase** • Maintenance to the onshore HVDC Cables and the HVAC Cables will be undertaken only as required. Corrective activities will be limited. • The onshore HVDC Cables, the HVAC Cables and the converter stations will be monitored remotely but will involve regular visits. • Permanent footprint of the converter stations would be 130,000 m^2. **Decommissioning phase** • Decommissioning is likely to operate within the parameters identified for construction (i.e., any activities are likely to occur within construction working areas and to require no greater amount or duration of activity than assessed for construction).	

[1] C=construction, O=operation and maintenance, D=decommissioning

8.10 Assessment of Construction Effects

Introduction

8.10.1 The impacts of the construction of the Proposed Development have been assessed. The impacts arising from the construction phase of the Proposed Development are listed in **Table 8.17**, along with the maximum design scenario against which each impact has been assessed.

8.10.2 A description of the likely effect on receptors caused by each identified impact is given below.

The Permanent and Temporary Loss of Agricultural Land Quality

Sensitivity of the Receptor

8.10.3 The overall sensitivity of agricultural land within the study area is assessed to be up to **very high**, dependent on the presence of some isolated areas of Grade 2 land. However, the soil types and survey work carried out to date indicate that most of the agricultural land within the area is likely to be high based on the presence of predominantly Subgrade 3a land as the highest quality land in the area.

Magnitude of Impact

Impacts of temporary land take

8.10.4 The construction of the Proposed Development would be likely to temporarily affect areas of BMV land during the construction phase and this would lead to the temporary loss of more than 20 ha of such land. The duration of this temporary impact, based on the maximum design scenario could be long term (i.e., >5 years).

8.10.5 However, the implementation of measures adopted as part of the Proposed Development as set out in **Table 8.16** would ensure that soils and the quality of the agricultural land would be restored at the end of the construction period to reduce, as far as possible, any temporary effects on BMV land.

8.10.6 Therefore, the magnitude of the temporary impact on the quality of agricultural land and soils is assessed to be **negligible**.

Impacts of permanent land take

8.10.7 The construction of the Converter Site and permanent access roads would lead to the permanent loss of approximately 22.2 ha of agricultural land. In addition, landscaping and earthworks could affect a further area of up to approximately 17.2 ha and it is assessed, on a conservative basis that the quality of this land could be permanently affected.

8.10.8 In addition, there would be very small losses of land around the link box access chamber locations. These would be placed at approximately 34 locations and in total would affect an area of less than 500 m² or 0.05 ha of land.

8.10.9 It is therefore assessed that, on the basis that there would be a permanent loss of in excess of 20 ha of agricultural land resulting from the Proposed Development that the magnitude of permanent impact on agricultural land quality would be **high**.

Significance of the Effect

Temporary land take

8.10.10 Following the implementation of the measures identified in **Table 8.16,** by the end of the construction period the agricultural land quality of land temporarily affected would be restored. The magnitude of impact on agricultural land quality is therefore assessed to be negligible on a resource that is assessed to be of up to very high sensitivity. The temporary effects arising during the construction period on agricultural land quality are therefore assessed to be of long term temporary **minor adverse** significance, which is not significant in EIA terms.

Permanent land take

8.10.11 The survey work undertaken previously in connection with the Atlantic Array Project (Volume 2 Figures: Figure 8.3a Agricultural Land Classification – Converter Site), shows the area surveyed to comprise approximately 7.6 ha of Subgrade 3a best and most versatile land, with the remaining areas comprising lower quality Subgrade 3b and 4 land. Whilst, based on published information it is likely that the remaining areas affected by this permanent loss would comprise a mixture of the grades already observed, on a precautionary basis it is assessed, that all of the land that has not yet surveyed, comprising a total of 15.3 ha, could comprise the best and most versatile Subgrade 3a land. On this basis, and including the additional potential loss of 0.05 ha of land associated with the link boxes, the total potential loss of best and most versatile land would be up to 22.9 ha. The loss of Subgrade 3a land could therefore exceed 20 ha.

8.10.12 Therefore, on the basis of permanent loss of more than 20 ha of agricultural land in Subgrade 3a quality the magnitude of impact on agricultural land quality is assessed to be high on a resource that is of high sensitivity. The permanent effects on agricultural land quality are therefore assessed to be **major adverse**, which is significant in EIA terms.

Further Mitigation and Residual Effects

8.10.13 As previously described, implementation of the measures identified in **Table 8.16** including measures contained within the Outline On-CEMP (document reference 7.7) and Outline Soil Management Plan (document reference 7.7, Appendix D), would ensure that soils and the quality of the agricultural land to be temporarily affected during construction would be restored to their former use (as far as possible).

8.10.14 However, these measures would not materially reduce the permanent loss of agricultural land associated with construction of the converter stations and link boxes.

8.10.15 The permanent loss of agricultural land is an unavoidable consequence during the construction of the Proposed Development and no further mitigation would prevent this from occurring.

8.10.16 Therefore, the assessment of the permanent effect on agricultural land quality would therefore remain as **major adverse**, which is significant.

The Impact of Disruption and Reduced Access to Agricultural Land Holdings

Sensitivity of the Receptor

8.10.17 The overall sensitivity of the agricultural land holdings within the land use study area is up to **high**, where: land holdings are dependent (but not wholly reliant) on the spatial relationship between the land and key infrastructure; and access between key infrastructure and the land is required on a frequent basis, particularly in relation to intensive livestock enterprises.

Magnitude of Impact

Temporary impacts

8.10.18 Construction of the Proposed Development would result in the temporary severance of farmland within several agricultural land holdings. As such, these agricultural land holdings would experience temporary disruption to farming management, access, field drainage and irrigation systems. However, following the implementation of measures adopted as part of the Proposed Development set out in **Table 8.16,** including requirements to reinstate land post-construction, appropriate management of soils and retention of farm access, the temporary disruption to agricultural land holdings would not affect the overall viability of farms. The duration of this temporary impact is considered to be up to long term (i.e., more than 5 years).

8.10.19 The magnitude of the long term temporary impact on the operation of farm holdings, taking into account measures adopted as part of the Proposed Development is assessed as **low**.

Permanent impacts

8.10.20 The permanent loss of agricultural land associated with the convertor would affect areas of land within individual livestock based farm holdings. Discussions will continue to be progressed with the individual interested parties following the DCO application submission, to identify and limit any potential effects on the operation of farming enterprises and reduce, as far as possible, the potential for any impacts on the viability of those businesses.

8.10.21 The magnitude of the permanent impact on disruption to farm holdings based on the limited losses of areas of land within the wider framework of farming enterprises within the study area is assessed to be **low**.

Significance of the effect

Temporary effects

8.10.22 Based on the **low** magnitude of impact and the **high** sensitivity of some land holdings, the effect of disruption and reduced access to agricultural land during construction of the Proposed Development are assessed to be long term temporary **minor adverse**, which is not significant in EIA terms. This conclusion was reached taking into account the implementation of the measures proposed to be adopted as part of the Proposed Development as identified in **Table 8.16,** including measures to maintain access and continued operation of affected farm holdings during the construction phase.

Permanent effects

8.10.23 The permanent loss of land from landholdings associated with the location of the converter stations and substation is assessed to be of permanent **minor adverse** significance based on a **low** magnitude of impact on a receptor of up to **high** sensitivity. This is not significant in EIA terms**.**

Further Mitigation and Residual Effects

8.10.24 With the implementation of embedded mitigation measures, the effects are categorised as 'not significant' and therefore, no further mitigation is required.

The Temporary Impact to the Use of Recreational Resources

Sensitivity of the Receptor

Coastal Areas

8.10.25 The sensitivity of the coastal area is assessed to be **high**, based on the regular use by the local populations and users of the coastal path.

Long Distance Routes and NCRs

8.10.26 The sensitivity of the Coastal Path and NCR 27 (including part of the Tarka Trail) as national routes are assessed to be of **very high sensitivity**.

Other PRoWs

8.10.27 The overall sensitivity of the other PRoWs and linear routes is assessed to be **medium,** as most of the routes identified appear to be as recreational routes for local communities where alternative options within the network are commonly available.

Other Recreational Resources

8.10.28 The sensitivity of the fishing lakes that lie immediately adjacent to the onshore cable route at Gammaton is assessed as **medium**, based on there being limited

alternative facilities available locally and with the use of the facilities being reasonably frequent.

Magnitude of Impact

Coastal Areas

8.10.29 There would be no construction access required to the beach area and therefore the use of the coastal area would remain unaffected during the construction period. There would therefore be a **negligible impact** on access to coastal areas.

Long Distance Routes and NCRs

8.10.30 The construction of the landfall would be undertaken by HDD or other trenchless technique as would the onshore cable route works to cross the River Torridge. On this basis, the use of the Coastal Path and NCR 27 (Tarka Trail section) would remain unaffected during the construction period. There would therefore be a **negligible impact** in the physical accessibility of these routes.

Other PRoWs

8.10.31 A limited number of PRoWs cross the recreation study area. There are also other tracks and local lanes that are also used as recreational routes that may be affected within this area. The following routes would be affected during the construction period, as identified in the Outline PRoW management plan Figure 1.1:

- Abbotsham Footpath 5 runs west to east connecting the unnamed road to Cornborough with the Abbothsham Road passing to the south of the Cornborough Sewage Treatment Works and East Langdon Farm. Construction traffic accessing the Landfall via the sewage treatment works will cross the PRoW at the edge of a field. The users of the PRoW will have priority.
- Abbotsham Footpath 2 runs along the south side of the Kenwith Valley connecting Chaltaborough with Kenwith Castle. The construction of an HDD compound in this field will require a temporary closure and diversion of the footpath a short distance to the north of the existing route. The length of the section of Footpath 2 proposed to be temporarily closed will be approximately 75.5 m and the length of the diversion route will be approximately 99.5 m. This temporary closure would therefore require users of this route to walk an additional 24m.
- Alwington Footpath 3 is also a farm track leading to Winscott Barton Farm. The onshore HVDC Cables at this point may be in HDD to avoid an archaeological asset but nevertheless, the haul road will continue across the track. Construction traffic using the haul road will be controlled across the PRoW and farm track. The users of the PRoW will have priority.
- The access route used as a green lane/bridleway providing a connection between equestrian properties on Coach Drive, Bideford to the Yeo Valley. The route will be crossed by surface trenching and the haul road. Construction traffic using the haul road will be controlled across the PRoW. The users of the PRoW will have priority.

8.10.32 The implementation of the Outline Public Rights of Way Management Plan (document reference 7.11) would ensure that disruption of PRoW during the construction period would be reduced, as far as possible and that based on the implementation of the management plan it is assessed that the magnitude of impact would be of short term **low** magnitude.

Other Recreational Resources

8.10.33 The Onshore HVDC Cable Corridor lies in close proximity to the fishing lakes to the north of Gammaton Road where the construction of the Onshore HVDC Cable Corridor could lead to some long term temporary disruption to the access to the facilities and where the construction activities would be located close to the fishing areas.

8.10.34 Measures would be put into place in accordance with the outline On-CEMP (document reference 7.7), to reduce, as far as possible the impact of the construction on the facilities, including maintenance of access. Taking into account such measures, it is assessed that the magnitude of impact on these resources would be of medium term **low** magnitude.

Significance of the Effect

Coastal areas

8.10.35 Based on there being a **negligible** impact on coastal areas of high sensitivity, it is assessed that any temporary effects would be of temporary **minor adverse** significance which is not significant in EIA terms.

Long Distance Routes and NCRs

8.10.36 Based on there being a **negligible** impact these resources of high and **very high** sensitivity, it is assessed that any temporary effects would be of temporary **minor adverse** significance, which is not significant in EIA terms.

Other PRoWs

8.10.37 Based on a **low** magnitude of impact on routes of **medium** sensitivity, the overall the effect on PRoWs and other linear routes is assessed to be of temporary **minor adverse** significance for these routes.

Other Recreational Resources

8.10.38 Based on a **low** magnitude of impact on recreational resources of **medium** sensitivity, the overall the effect on these resources is assessed to be of temporary **minor adverse** significance which is not significant in EIA terms.

Further Mitigation and Residual Effects

8.10.39 With the implementation of embedded mitigation measures, the effects are categorised as 'not significant' and therefore, no further mitigation is required.

Future Monitoring

8.10.40 The effects on land use and recreation identified in the assessment are either temporary or permanent and would not change in significance over time. In addition, no measures are proposed during construction of the Proposed Development that require subsequent monitoring (to determine the efficacy of mitigation). Therefore, no land use and recreation monitoring to test the predictions made within the impact assessment is considered necessary.

8.11 Assessment of Operation and Maintenance Effects

8.11.1 There would be no additional impacts on land use and recreational resources to those assessed in the construction phase arising during the operation and maintenance period.

8.12 Assessment of Decommissioning Effects

8.12.1 Although the Proposed Development is not time-limited and consent is not sought for decommissioning, the impacts of a possible future decommissioning phase have been assessed in this EIA for completeness. Assumptions about the potential impacts that may arise from any future decommissioning the Proposed Development are listed in **Table 8.17**, along with the maximum design scenario against which each impact has been assessed. It is expected that any future decommissioning of the Proposed Development would be carried out under a separate consenting process that would control and monitor the potential environmental effects.

8.12.2 A description of the likely effect on receptors caused by each identified impact is given below.

8.12.3 During decommissioning, it is expected that the onshore HVDC and HVAC Cables may be recovered by pulling the cables through the ducts. Otherwise, they would be left in place in the ground with the cable ends cut, sealed and securely buried as a precautionary measure. Cable ducts, joint bays and link boxes would be left *in-situ*, to minimise environmental disturbance.

8.12.4 The operation of the proposed converter stations are intended to form permanent elements of electrical infrastructure serving the national grid, however as stated above, the minimum operational lifetime is currently assumed to be 50 years. It is likely that this operational lifetime could be extended through refurbishment and the replacement of equipment, rather than decommissioning.

8.12.5 If the operation of the Proposed Development does not continue beyond 50 years, the proposed converter stations would be decommissioned. the Outline Decommissioning Strategy (document reference 7.17) details that, if decommissioning is required, onshore decommissioning plan(s) would be developed in line with the latest available guidance, legislation and any new technologies at the time of the Proposed Development's decommissioning. The onshore decommissioning plan(s) would include an assessment of the need to remove onshore above ground infrastructure and the decommissioning of below ground infrastructure and include details relevant to flood risk, pollution prevention and avoidance of ground disturbance.

8.12.6 No new areas of land take are envisaged to be affected through decommissioning and no additional effects are assessed beyond those already assessed during the construction stage.

Agricultural Land Quality

Sensitivity of Receptor

8.12.7 The overall sensitivity of agricultural land quality is assessed to be up to **very high**, due to the likely presence of potential isolated areas of Grade 2 and Subgrade 3a land within the study area.

Magnitude of Impact

8.12.8 No new areas of permanent land take are envisaged and therefore no additional permanent effects on agricultural land will occur.

8.12.9 The minimal works within agricultural areas during the decommissioning phase (limited activity required to access and remove cables) would be expected to lead to a **negligible** temporary impact on any agricultural land areas affected.

Significance of Effect

8.12.10 There would be no impact and therefore no effect in terms of permanent land take during the decommissioning phase.

8.12.11 The magnitude of impact on agricultural land quality is therefore assessed to be **negligible** on a resource that is assessed to be of up to **very high sensitivity**. The temporary effects arising during the decommissioning period on agricultural land quality are therefore assessed to be of temporary **minor adverse** significance, which is not significant in EIA terms.

Further Mitigation and Residual Effects

8.12.12 The effects on agricultural land quality during decommissioning are categorised as 'not significant' and therefore, no further mitigation is required.

Farm Holdings

Sensitivity of the Receptor

8.12.13 The overall sensitivity of agricultural land holdings within the land use study area is up to **high**.

Magnitude of Impact

8.12.14 No permanent disruption or access impacts will occur as a result of the decommissioning phase.

8.12.15 The minimal works within agricultural areas during the decommissioning phase would be expected to lead to a **negligible** temporary impact on land holdings.

Significance of the Effect

8.12.16 There would be no impact and therefore no effect in terms of permanent land take during the decommissioning phase.

8.12.17 The magnitude of impact on land holdings is therefore assessed to be negligible on a resource that is assessed to be of up to high sensitivity. The temporary effects arising during the decommissioning period on land holdings are therefore assessed to be of temporary **minor adverse** significance, which is not significant in EIA terms.

Further Mitigation and Residual Effects

8.12.18 The effects on farm holdings during decommissioning are categorised as 'not significant' and therefore, no further mitigation is required.

Recreational Resources

8.12.19 The limited activities associated with cable pulling activities during this phase would only have potential to have short term temporary effects on public rights of way and would not be likely to affect other recreational resources. These effects would be within the parameters assessed for the construction phase of the proposed development.

Sensitivity of Receptor – PRoW

8.12.20 The overall sensitivity of the other PRoWs and linear routes is assessed to be **medium,** as most of the routes identified appear to be as recreational routes for local communities where alternative options within the network are commonly available

Magnitude of Impact – PRoW

8.12.21 The implementation of the appropriate short term management measures during the decommissioning phase would ensure that disruption of PRoW during the construction period would be reduced, as far as possible and on this basis it is assessed that the magnitude of impact would be of short term **low** magnitude.

Significance of Effect – PRoW

8.12.22 Based on a low magnitude of impact on routes of medium sensitivity, the overall the effect on PRoWs and other linear routes from any decommissioning activities is assessed to be of temporary **minor adverse** significance for these routes.

Further Mitigation and Residual Effects

8.12.23 The effects on recreational resources during decommissioning are categorised as 'not significant' and therefore, no further mitigation is required.

Future Monitoring

8.12.24 The effects on land use and recreation identified in the assessment are either temporary or permanent and would not change in significance over time. In addition, no measures are proposed during decommissioning of the Proposed Development that require subsequent monitoring (to determine the efficacy of mitigation). Therefore, no land use and recreation monitoring to test the predictions made within the impact assessment is considered necessary.

8.13 Cumulative Environmental Assessment

8.13.1 The Cumulative Effects Assessment (CEA) takes into account the impact associated with the Proposed Development together with other projects and plans. The projects and plans selected as relevant to the CEA presented within this chapter are based upon the results of a screening exercise (see Volume 1, Appendix 5.3: CEA Screening Matrix). Each project has been considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

8.13.2 The land use and recreation CEA methodology has followed the methodology set out in Volume 1, Chapter 5: EIA methodology of the ES. As part of the assessment, all projects and plans considered alongside the Proposed Development have been allocated into 'tiers' reflecting their current stage within the planning and development process.

- Tier 1
  - Under construction
  - Permitted application
  - Submitted application
  - Those currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact
- Tier 2
  - Scoping report has been submitted
- Tier 3
  - Scoping report has not been submitted
  - Identified in the relevant Development Plan
  - Identified in other plans and programmes.

8.13.3 This tiered approach is adopted to provide a clear assessment of the Proposed Development alongside other projects, plans and activities.

8.13.4 The CEA also considers the Proposed Development and the anticipated National Grid Electricity Transmission (NGET) Alverdiscott substation (which will be implemented by NGET and thus, does not form part of the Proposed Development) together. This is because the NGET substation will be required for the connection of the Proposed Development to the national grid.

8.13.5 The specific projects, plans and activities scoped into the CEA, are outlined in **Table 8.18**. The locations of such projects, plans and activities are presented on Volume 2, Figure 8.9 of the ES.

Table 8.18: List of cumulative developments considered within the CEA

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
Tier 1						
1/0359/2024/FULM	Permitted	Partially within the Onshore Infrastructure Area	Reserved matters application for details of appearance, landscaping, layout and scale in respect of a proposal for 274 no. dwellings, associated infrastructure and open space pursuant outline planning permission (35ha) 1/0039/2014/OUTM (Amended Plans).	Unknown	Unknown	Yes
1/1057/2021/FULM	Permitted	Partially within the Onshore Infrastructure Area	Installation and operation of a Solar Farm (63.2ha) together with all associated works, equipment and necessary infrastructure.	Unknown	Unknown	Yes
1/1141/2022/LA	Permitted	Adjacent to the Onshore Infrastructure Area	Erection of building for the processing of household recycling materials and food waste, provision of vehicle workshop, office and welfare and all ancillary facilities including access roadway - EX39 4QE	Unknown	Unknown	Yes
1/1256/2021/REMM	Permitted	0.2	Reserved matters application for details of appearance, landscaping, layout and scale in respect of a proposal for 276 no. dwellings, associated infrastructure and open space pursuant outline planning permission (35ha).	Unknown	Unknown	Yes
1/1266/2022/REMM	Pending	0.1	Reserved matters application for details of appearance, landscaping, layout and scale in respect of a proposal for 61 no. dwellings (2.54ha) and associated works pursuant to Outline Planning Permission LPA Ref; 1/1086/2017/OUTM.	Unknown	Unknown	Yes
1/0252/2022/OUTM	Permitted	0.9	Outline application (14.6ha) for the erection of up to 400 dwellings, amenity open space, footpath	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
			links, associated landscaping and infrastructure works with all matters reserved except access (Affecting a Public Right of Way).			
1/0523/2021/REMM	Permitted	0.2	300 dwellings with associated infrastructure and public open space (Variation of conditions 1 (the reserved matters), 11 (highways) and 18 (contamination) (12ha).	Unknown	Unknown	Yes
1/0110/2023/REMM	Pending	0.3	Application for approval of Reserved Matters pursuant to 1/0947/2020/OUTM (layout, scale, appearance, and landscaping) for 200 dwellings and associated infrastructure (9.5ha).	Unknown	Unknown	Yes
1/0656/2020/OUTM	Permitted	0.7	Outline application for up to 211 dwellings - use classes B2, B8 and E(g), public open space and other associated infrastructure with all matters reserved except access (19.9ha).	Unknown	Unknown	Yes
1/0880/2021/FULM	Permitted	0.7	Erection of 117 dwellings and associated works including site access (4.93ha).	Unknown	Unknown	Yes
1/0787/2018/FULM	Permitted	0.4	Proposed new business hub incorporating a conference centre, new offices, a gym, nursery, associated car parking and landscaping.	Unknown	Unknown	Yes
1/0926/2020/OUTM	Permitted	0.6	Outline planning application for the erection of up to 290 dwellings, including affordable housing with public open space, landscaping and sustainable drainage system (SuDS) and two vehicular access points from Abbotsham Road. All matters reserved except access (18.9ha).	Unknown	Unknown	Yes
1/0894/2021/FULM	Permitted	0.6	Reserved matters application for appearance, access, landscaping, layout & scale pursuant to planning approval 1/0111/2016/OUTM for the	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
			erection of 26 residential dwellings, associated infrastructure and open space.			
1/0076/2020/REMM	Permitted	1.0	A reserved matters application for the erection of 130 dwellings on Phase one land at Daddon Hill, Northam, Devon. Pursuant to the approved Outline application Ref: 1/1192/2015/OUTM approved on 7th February 2018. Demolition of existing farm buildings and construction of a mixed use development.	Unknown	Unknown	Yes
Tier 3						
Alverdiscott Substation Connection Development	Unknown	Within Onshore infrastructure Area	The development required at the existing Alverdiscott Substation Site, which is envisaged to include development of a new 400 kV substation, and other extension modification works to be carried out by NGET. This does not form part of the Proposed Development, however, it is considered cumulatively within the Environmental Impact Assessment as it is necessary to facilitate connection to the national grid. It is anticipated that NGET would utilise the existing land holding to build the 400kV substation to accommodate the connection to the transmission network. It is assumed that the maximum development area for the Alverdiscott Substation Connection Development could comprise up to 3.8 ha of land. Within that area it is assumed that the substation itself will occupy a footprint of approximately 2.8 ha, with a maximum height of 15 m, excluding connecting tower structures.	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
Torridge District Council Policy BID04	N/A	Adjacent to Onshore Infrastructure Area	A site of about 34 hectares south of East-the-Water, as defined on the Policies Map 2, is allocated to deliver a sustainable, high quality mixed use development that includes: (a) approximately 600 dwellings, providing a mix of housing types and size to reflect local need, including affordable housing, of which approximately 430 are expected to be delivered in the plan period; (b) a 420 place primary school, including a nursery and a children's centre delivery base; (c) a hill top park; and (d) strategic planting along the site's southern and eastern boundaries.	Unknown	Unknown	Yes
Torridge District Council Policy BID09	N/A	Adjacent to Onshore Infrastructure Area	Land at Adjavin Farm, south of Clovelly Road, extending to 41 hectares and as defined on Policies Map 2, is allocated for residential and associated development, that includes: (a) approximately 700 dwellings including affordable homes; (b) integrated social and community infrastructure, including a neighbourhood community centre; (c) on site provision of sport and recreation facilities, including sports pitches adjoining Clovelly Road/Atlantic Village; (d) a vehicular link forming part of a wider distributor link to the south of Clovelly Road connecting with the Caddsdown Industrial Park Extension, allocated by Policy BID05; and	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
			(e) strategic planting along the site's southern boundary and western boundaries.			
Torridge District Council Policy BID02	N/A	0.2	Land at Cleave Wood, extending to about 13 hectares and as defined on Policies Map 2, is allocated as a mixed use development that includes: (a) approximately 250 dwellings including affordable homes, with an emphasis on providing a mix of housing types and sizes that reflects local needs; (b) health care facilities, including related car parking on a site of about 0.6 hectares; and (c) a neighbourhood community centre, including a Children's Centre base and youth facilities.	Unknown	Unknown	Yes
Torridge District Council Policy BID03	N/A	0.4	Land adjoining Manteo Way, extending to 17 hectares, as defined on Policies Map 2, is allocated for residential and associated development, that includes: (a) approximately 310 dwellings, providing a mix of housing types and size to reflect local need, including affordable housing; and (b) a 2.5 hectare site for open space and recreation facilities.	Unknown	Unknown	Yes
Torridge District Council Policy NOR02	N/A	0.5	Policy NOR02: Site West of Buckleigh Road Land to the west of Buckleigh Road, extending to about 30 hectares and as defined on Policies Map 8A, will be comprehensively planned to deliver a sustainable, high quality mixed use development that includes: (a) approximately 740 dwellings, providing a mix of housing type and size to reflect local need,	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
			including those of the area's elderly population and affordable housing; and (b) a local centre, including facilities to accommodate community and retail uses.			
Torridge District Council Policy BID05	N/A	0.7	Land adjoining Caddsdown Business Park, extending to about 18 hectares and as defined on Policies Map 2, will be developed comprehensively to deliver a sustainable, high quality mixed use development that includes: (a) approximately 8 hectares of land for economic development focused on BI, B2 and B8 uses as appropriate to the site and its wider context, ensuring that there is a mix of unit sizes to enable business start up and expansion; (b) approximately 130 dwellings, including affordable homes, with an emphasis on providing a mix of housing types and sizes that reflects local needs; and (c) an integrated highway network that incorporates: (i) the formation of a new east-west aligned vehicular link, as part of a wider distributor road through BID09 and extending to the site's eastern boundary; (ii) the provision of an extended spinal estate road for Caddsdown Business Park to service the new economic development; and (iii) the formation of a new junction onto Clovelly Road, providing access to the site from its north-eastern boundary.	Unknown	Unknown	Yes

Project	Status	Distance from Onshore Infrastructure Area (nearest point, km)	Description	Dates of Construction (if available)	Dates of Operation (if available)	Overlap with the Proposed Development?
Torridge District Council Policy BID01	N/A	Adjacent to the Onshore Infrastructure Area	A site of about 71 hectares West of Bideford, between Abbotsham Road and Clovelly Road, as defined on Policies Map 2, is allocated to deliver a sustainable, high quality mixed use development that will be developed in a comprehensive manner and includes: a. approximately 1,050 dwellings, providing a mix of housing types b. a mix of commercial and employment uses on about 5 hectares at Atlantic Park c. integrated social and community infrastructure, including a 420 place primary school with early years provision and a children's centre delivery base, with associated sports and play facilities and a mixed-use local centre providing a range of facilities.	Unknown	Unknown	Yes
Torridge District Council Policy NOR01	N/A	0.9	A site of about 32 hectares at Daddon Hill, as defined on Policies Map 8A, is allocated to deliver a sustainable, high quality mixed use development that includes: (a) approximately 500 dwellings, providing a mix of housing types and size to reflect local need, including affordable housing and an Extra Care facility; (b) a 420 place primary school with an associated nursery and children's centre delivery base, located to maximise accessibility to the resident catchment; and (c) a neighbourhood community centre.	Unknown	Unknown	Yes

Scope of Cumulative Effects Assessment

8.13.6 The cumulative effects presented and assessed in this section have been based on the Project Design Envelope set out in Volume 1, Chapter 3: Project Description of the ES as well as the information available on other projects and plans. The maximum design scenario as described for the Proposed Development (see **Table 8.17**) has been assessed cumulatively with listed in **Table 8.18**.

8.13.7 The CEA has considered the Proposed Development, alongside the NGET substation to be developed at the existing Alverdiscott Substation Site. The assessed design of NGET substation has been based upon a combination of reasonable worst case parameters, as detailed within Volume 1, Chapter 3: Project Description of the ES. The development area for the NGET substation would comprise up to 3.8 ha of land. Within that area it is assumed that the substation itself will occupy a footprint of approximately 2.8 ha, with a maximum height of 15 m, excluding connecting tower structures. If further information is available for the proposal before the Proposed Development receives development consent, the Applicant will review the information and provide any update needed to the CEA.

Cumulative Effects Assessment

8.13.8 A description of the significance of cumulative effects upon land use and recreation receptors arising from construction, operation and maintenance and decommissioning is given below.

Construction – Agricultural Land Classification

Tier 1 Projects

8.13.9 The residential cumulative projects that will lead to the permanent loss of areas of best and most versatile Subgrade 3a land. The solar farm that lies partially within the Order Limits, whilst affecting agricultural land would not lead to the loss of agricultural land quality as the soils within the area remain in situ and would not therefore have cumulative effects together with the Proposed Development. The cumulative effect of the losses associated with residential schemes, together with the loss of land associated with the Proposed Development would lead to losses in excess of 20 ha of Subgrade 3a land and would therefore have a **high** magnitude of impact on agricultural land classification.

8.13.10 The sensitivity of the agricultural land classification receptor is assessed to be **high** based on the presence of Subgrade 3a land.

8.13.11 The cumulative effect, based on a high magnitude of impact on a receptor of high sensitivity is therefore assessed to be of **major adverse** significance which is significant in EIA terms.

Tier 3 Projects

8.13.12 The Alverdiscott Substation development area includes agricultural land around the existing substation. Survey work undertaken in 2011 as shown on Figure 8.3a: ALC at the Converter Site (Volume 2 Figures) included a small area of this area to comprise lower quality Subgrade 3b and Grade 4 land. The ALC of the remaining

area is not known, but the presence of the Hallsworth 2 Association as shown in Figure 8.4: Soil Associations (Volume 2 Figures) indicates that this area would be likely to comprise lower quality agricultural land.

8.13.13 The policy allocations included in this category would be likely to result in the permanent loss of areas of best and most versatile Subgrade 3a land. The cumulative effect of the losses associated with the implementation of these policies, together with the loss of land associated with the Proposed Development would lead to losses in excess of 20 ha of Subgrade 3a land and would therefore have a **high** magnitude of impact on agricultural land classification.

8.13.14 The sensitivity of the agricultural land classification receptor is assessed to be **high** based on the presence of Subgrade 3a land.

8.13.15 The cumulative effect, based on a high magnitude of impact on a receptor of high sensitivity is therefore assessed to be of **major adverse** significance which is significant in EIA terms.

Construction – Farm Holdings

Tier 1 Projects

8.13.16 The sensitivity of the farm holdings that may be permanently affected by the cumulative schemes is assessed to be **low** to **high**, based on the presence of a number of discrete areas of agricultural holdings that may include intensive livestock enterprises affected by the cumulative schemes that do not form part of the same farm holdings that are affected by the Proposed Development.

8.13.17 Whilst there may be some additional temporary disruption to farm holdings caused by the construction of the cumulative residential and commercial developments including severance to access routes or land areas, this magnitude of this impact is assessed to be **low** based on the location and extent of the cumulative schemes.

8.13.18 The potential temporary cumulative impact on the farm holdings is therefore assessed to be of temporary **minor adverse** significance based on a negligible magnitude of impact on a receptor of up to high sensitivity.

8.13.19 In terms of permanent cumulative effects, the Proposed Development does overlap with land within a solar farm development. Whilst the land within the solar farm area can still be used for extensive agricultural grazing, the land is being used primarily for commercial energy generation and therefore no cumulative effects on commercial farm holdings arising from the overlap with the solar farm development are assessed.

Tier 3 Projects

8.13.20 The sensitivity of the farm holdings that may be permanently affected by the Tier 3 cumulative schemes is assessed to be **low to high**, based on the presence of a number of discrete areas of agricultural holdings that may include intensive livestock enterprises affected that do not form part of the same farm holdings that are affected by the Proposed Development.

8.13.21 Whilst there may be some additional temporary disruption to farm holdings caused by the construction of the cumulative residential and commercial developments including severance to access routes or land areas, this magnitude

of this impact is assessed to be **low** based on the location and extent of the cumulative schemes.

8.13.22 The potential temporary cumulative impact on the farm holdings is therefore assessed to be of temporary **minor adverse** significance based on a negligible magnitude of impact on a receptor of up to high sensitivity.

Construction – Public Rights of Way

8.13.23 Based on the location of the Tier 1 and Tier 3 cumulative schemes and the implementation of the Outline Public Rights of Way Management Plan provided as part of the DCO application (document reference 7.11), it is assessed that there would be no temporary cumulative effects arising between these cumulative schemes and the Proposed Development.

8.14 Transboundary Effects

8.14.1 A screening of transboundary effects has been carried out and has identified that there was no potential for significant transboundary effects with regard to land use and recreation from the Proposed Development upon the interests of other states (see Volume 1, Appendix 5.2: Transboundary Screening, of the ES).

8.15 Inter-related Effects

8.15.1 Inter-relationships are the impacts and associated effects of different aspects of the Proposed Development on the same receptor. These are as follows.

- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the Proposed Development (construction, operation and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases.
- Receptor led effects: Assessment of the scope for all relevant effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor.

8.15.2 A description of the likely interactive effects arising from the Proposed Development on land use and recreation is provided in Volume 4, Chapter 5: Inter-related effects of the ES.

8.15.3 The assessment of effects on recreational resources set out in this chapter does not include any effects on the amenity of those resources as a result of changes to the visual and acoustic environments arising from the construction, operation, and decommissioning of the Proposed Development. These are assessed, where relevant, in Volume 4 Chapter 2, Landscape, Seascape and Visual Resources and Volume 2, Chapter 6: Noise and Vibration.

8.15.4 The potential effects arising from the Proposed Development on tourism are considered in Volume 4, Chapter 3: Socio-economics and Tourism.

8.16 Summary of Impacts, Mitigation Measures and Monitoring

8.16.1 Information on land use and recreation within the study area was collected through desk top review and site survey information from previous survey work undertaken by RPS in connection with the Atlantic Array proposal. Further soil surveys at the Converter Site could not be carried at this stage, however, they would be undertaken prior to commencement of construction to confirm the distribution agricultural land quality and soil types within the proposed development.

8.16.2 **Table 8.19** presents a summary of the impacts, measures adopted as part of the Proposed Development and residual effects in respect to land use and recreation The impacts assessed include:

- Loss of agricultural land quality;
- Potential impacts on farm holdings; and
- Potential impacts on recreational resources including Public Rights of Way and promoted routes.

8.16.3 Overall, it is concluded that there will be significant effects arising from the Proposed Development on agricultural land quality during the construction phase when the permanent loss of agricultural land, predominantly at the convertor station occurs.

8.16.4 **Table 8.20** presents a summary of the cumulative impacts, mitigation measures and residual effects. The cumulative impacts assessed include:

- Loss of agricultural land quality;
- Potential impacts on farm holdings; and
- Potential impacts on recreational resources including Public Rights of Way and promoted routes.

8.16.5 Overall, it is concluded that there will be significant cumulative effects from the Proposed Development alongside other projects/plans on agricultural land quality during the construction phase when the permanent loss of agricultural land occurs.

8.16.6 No transboundary impacts have been identified in regard to effects of the Proposed Development.

Table 8.19: Summary of environmental effects

Description of Impact	Phase[a]			Embedded Mitigation	Sensitivity of receptor	Magnitude of impact	Significance of Effect	Further Mitigation	Residual Effect	Proposed Monitoring
	C	O	D							
The temporary loss of agricultural land	✓	×	×	ONS11 and ONS32 (see **Table 8.16)**.	C: Very high	C: Negligible	C: Minor Adverse	None proposed	Minor Adverse	None
The permanent loss of agricultural land quality	✓	×	×	ONS11 and ONS32 (see **Table 8.16)**.	C: High	C: High	C: Major Adverse	None proposed	Major Adverse (subject of confirmation of ALC through further survey)	None
The temporary disruption and reduced access to agricultural land holdings	✓	×	×	ONS35 (see **Table 8.16)**.	C: High	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None
The permanent disruption and reduced access to agricultural land holdings	✓	×	×	ONS35 (see **Table 8.16)**.	C: High	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None
The temporary impact on the recreational use of coastal areas	✓	×	×	ONS09 and ONS32 (see **Table 8.16)**.	C: High	C: Negligible	C: Minor Adverse	None proposed	Minor Adverse	None
The temporary impact on the recreational use of Long Distance	✓	×	×	ONS09 and ONS32 (see **Table 8.16)**.	C: Very High	C: Negligible	C: Minor Adverse	None proposed	Minor Adverse	None

Description of Impact	Phase[a]			Embedded Mitigation	Sensitivity of receptor	Magnitude of impact	Significance of Effect	Further Mitigation	Residual Effect	Proposed Monitoring
	C	O	D							
Routes and NCRs										
The temporary impact on the recreational use of other PRoWs	✓	×	×	ONS09 and ONS32 (see **Table 8.16)**.	C: Medium	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None
The temporary impact on the recreational use of other recreational resources	✓	×	×	ONS09 and ONS32 (see **Table 8.16)**.	C: Medium	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None
The impact on agricultural land quality	×	×	✓	ONS04 (see **Table 8.16)**.	D: Very High	D: Negligible	D: Minor Adverse	None proposed	Minor Adverse	None
The impact on farm holdings	×	×	✓	ONS04 (see **Table 8.16)**.	D: High	D: Negligible	D: Minor Adverse	None proposed	Minor Adverse	None
The impact on other recreational resources	×	×	✓	ONS04 (see **Table 8.16)**.	D: Medium	D: Low	D: Minor Adverse	None proposed	Minor Adverse	None

Table 8.20: Summary of cumulative environmental effects

Description of Impact	Phase[a]			Embedded Mitigation	Sensitivity of receptor	Magnitude of impact	Significance of Effect	Further Mitigation	Residual Effect	Proposed Monitoring
	C	O	D							
Tier 1										
The permanent loss of BMV agricultural land.	✓	×	×	ONS11 and ONS32 (see **Table 8.16)**.	C: High	C: High	C: Major Adverse	None proposed	Major Adverse	None
The permanent disruption caused to the operation of agricultural land holdings.	✓	×	×	ONS35 and ONS32 (**Table 8.16)**.	C: Low to High	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None
Tier 3										
The permanent loss of BMV agricultural land.	✓	×	×	ONS11 and ONS32 (see **Table 8.16)**.	C: High	C: High	C: Major Adverse	None proposed	Major Adverse	None
The permanent disruption caused to the operation of agricultural land holdings.	✓	×	×	ONS35 and ONS32 (**Table 8.16)**.	C: Low to High	C: Low	C: Minor Adverse	None proposed	Minor Adverse	None

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