



# **XLINKS MOROCCO-UK POWER PROJECT**

## **Preliminary Environmental Information Report**

Volume 2, Chapter 8: Land Use and Recreation



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## Glossary

Term	Meaning
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.
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.
Development Consent Order (DCO)	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.
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 County Borough Councils. The relevant Local Authorities for the Proposed Development are Devon County Council and Torridge District Council.
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 and adopted in 2024.
Onshore Infrastructure Area	The proposed infrastructure area within the Proposed Development Draft Order Limits landward of the transition joint bays, which contains the onshore HVDC Cables, Converter Site, the Alverdiscott Substation Connection Development, highway works, utility diversions and onshore HVAC Cables.
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 the Xlinks Morocco-UK Power Project within the UK, which includes the offshore cables (from the UK Exclusive Economic Zone to landfall), landfall site, onshore Direct Current and Alternating Current cables, converter stations, road upgrade works and, based on current assumptions, the Alverdiscott Substation Connection Development.
Proposed Development Draft 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).
Study area	This is an area which is defined for each environmental topic which includes the Proposed Development Draft 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 '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 Preliminary Environmental Information Report (PEIR) presents the preliminary findings of the Environmental Impact Assessment (EIA) work undertaken to date for the United Kingdom (UK) elements of the Xlinks Morocco-UK Power Project. For ease of reference, the UK elements of the Xlinks Morocco-UK Power Project are referred to in this chapter as the 'Proposed Development'.
- 8.1.2 This chapter considers the potential 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 PEIR chapter:
- sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation undertaken to date;
  - presents the potential environmental impacts and effects on all aspects of land use and recreation arising from the Proposed Development, based on the information gathered and the analysis and assessments undertaken to date;
  - identifies any assumptions and limitations encountered in compiling the environmental information; and
  - highlights any necessary monitoring and/or mitigation measures that could prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process.
- 8.1.4 The assessment presented is informed by the following technical chapters:
- Volume 2, Chapter 6: Noise and Vibration, of the PEIR;
  - Volume 4, Chapter 2: Landscape, Seascape and Visual Resources of the PEIR; and
  - Volume 4, Chapter 3: Socio-economics, of the PEIR.
- 8.1.5 This chapter also draws upon information contained within the following technical appendices:
- Volume 2, Appendix 8.1: Agricultural Land Classification, of the PEIR.
- 8.1.6 The PEIR will inform pre-application consultation. Following consultation, comments on the PEIR and any refinements in design will be reviewed and taken into account, where appropriate, in preparation of the Environmental Statement (ES) that will accompany the application to the Planning Inspectorate for development consent.

## 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.

### Planning Policy Context

- 8.2.3 The Proposed Development will 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 located wholly within Devon, England. As set out in Volume 1, Chapter 1: Introduction, of the PEIR, 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

- 8.2.4 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).
- 8.2.5 **Table 8.1** sets out key aspects from the NPSs relevant to the Proposed Development, with particular reference to the need for and approach to consenting such infrastructure.

**Table 8.1: Summary of relevant NPS policy**

Summary of NPS requirement	How and where considered in the PEIR
<b>NPS EN-1</b>	
<i>‘The Environmental Statement 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</i>	The baseline environment with respect to land use has been identified and is presented in <b>section 8.5</b> of this chapter. The effects of the Proposed Development on land use have been considered

Summary of NPS requirement	How and where considered in the PEIR
<p>or use on a neighbouring site from continuing’ (paragraph 5.11.8 of NPS EN-1).</p>	<p>and are presented in <b>section 8.8 - 8.11</b> of this chapter.</p>
<p>‘During any pre-application discussions with the applicant the LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements’ (paragraph 5.11.11 of NPS EN-1).</p>	<p>Consultation has taken place during the development of the Proposed Development between the Applicant and Local Authorities. Consultation has also taken place with the Local Authorities to identify relevant proposed developments for cumulative assessment.</p>
<p>‘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).</p>	<p>This chapter of the PEIR 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 <b>section 8.8 - 8.11</b> of this chapter. The measures adopted as part of the Proposed Development to minimise impacts on agricultural land are set out in <b>section 8.7</b> of this chapter.</p>
<p>‘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).</p>	<p>The Applicant intends to submit an Outline Soil Management Plan (Outline SMP) as part of the Onshore Construction Environmental Management Plan (On-CEMP) for the Proposed Development. The Outline SMP will contain 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 to be set out in the Outline SMP are set out in <b>section 8.7</b> of this chapter.</p>
<p>‘Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination’ (paragraph 5.11.14 of NPS EN-1).</p>	<p>The Applicant intends to submit an Outline SMP as part of the On-CEMP for the Proposed Development. The Outline SMP will contain 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 to be set out in the Outline SMP are set out in <b>section 8.7</b> of this chapter.</p>
<p>‘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).</p>	<p>The Applicant intends to submit an Outline Public Rights of Way Management as part of the On-CEMP for the Proposed Development which includes proposed management measures to reduce, as far as possible, effects of the Proposed Development on Public Rights of Way (PRoW).</p>

8.2.6 The NPS for Renewable Energy Infrastructure (EN-3; DESNZ, 2023b) and the NPS for Electricity Networks Infrastructure (EN-5; DESNZ, 2023c) do not provide



any additional policies or advice specific to land use and recreation over and above those presented within NPS EN-1.

## The National Planning Policy Framework

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

8.2.8 **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**

NPPF Reference	Key provisions	How and where considered in the PEIR
<p>Section 15, Conserving and enhancing the natural environment. (Paragraph 180)</p>	<p><i>‘Planning policies and decisions should contribute to and enhance the natural and local environment by:</i></p> <ul style="list-style-type: none"> <li><i>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);</i></li> <li><i>b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land”</i></li> </ul>	<p>This chapter of the PEIR considers potential effects of the Proposed Development on agricultural land, including BMV agricultural land.</p> <p>The effects of the Proposed Development on agricultural land are presented in <b>sections 8.8 - 8.11</b> of this chapter.</p> <p>The measures adopted as part of the Proposed Development to limit impacts on land quality are set out in <b>section 8.7</b> of this chapter</p>
<p>Section 8, Promoting healthy and safe communities. (Paragraph 96)</p>	<p><i>‘Planning policies and decisions should aim to achieve healthy, inclusive and safe places and beautiful buildings which:</i></p> <ul style="list-style-type: none"> <li><i>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;</i></li> <li><i>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</i></li> <li><i>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’</i></li> </ul>	<p>This chapter of the PEIR 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.</p> <p>The effects of the Proposed Development on these recreational resources are presented <b>section 8.8 - 8.11</b> of this chapter.</p> <p>The measures adopted as part of the Proposed Development to minimise adverse effects on recreational resources are set out in <b>section 8.7</b> of this chapter.</p>

NPPF Reference	Key provisions	How and where considered in the PEIR
<p>Section 8 Promoting healthy and safe communities – open space and recreation. (Paragraph 102 – 104)</p>	<p><i>'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.</i></p> <p><i>103. Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:</i></p> <ul style="list-style-type: none"> <li><i>a) an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or</i></li> <li><i>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</i></li> <li><i>c) the development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.</i></li> </ul> <p><i>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'</i></p>	<p>This chapter of the PEIR 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.</p> <p>The effects of the Proposed Development on these recreational resources are presented <b>section 8.8 - 8.11</b> of this chapter.</p> <p>The measures adopted as part of the Proposed Development to minimise adverse effects on recreational resources are set out in <b>section 8.7</b> of this chapter.</p>

- 8.2.9 The Planning Practice Guidance (PPG) (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government, 2021) supports the NPPF and provides guidance across a range of topic areas.
- 8.2.10 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.
- 8.2.11 The PPG also provides guidance regarding agricultural land, including the ways in which the planning process can take account of the quality of agricultural land and safeguarding of soils.

## Local Planning Policy

8.2.12 The onshore elements of the Proposed Development are located within the administrative areas of Torridge District Council and Devon County Council. 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 PEIR
<b>North Devon and Torridge Local Plan 2011-2031</b>		
ST 01: Principles of Sustainable Development	<p><i>'(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.</i></p> <p><i>(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.</i></p> <p><i>(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:</i></p> <p><i>(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</i></p> <p><i>(b) specific policies in that Framework or guidance in the National Planning Practice Guidance indicate that development should be restricted.'</i></p>	The assessment of the Proposed Development in terms of the NPPF is considered in <b>sections 8.8 - 8.11</b> of this chapter.
ST 14: Enhancing Environmental Assets	<p><i>'The quality of northern Devon's natural environment will be protected and enhanced by ensuring that development contributes to:</i></p> <p><i>d) conserving northern Devon's geodiversity and its best and most versatile agricultural land;</i></p> <p><i>(j) increasing opportunities for access, education and appreciation of all aspects of northern Devon's environment, for all sections of the community...'</i></p>	<p>The effects of the Proposed Development on the best and most versatile land are assessed in <b>sections 8.8 - 8.11</b> of this chapter.</p> <p>Measures to protect soil resources and agricultural land quality are set out in <b>section 8.7</b> of this chapter.</p>
DM 05: Highways	<p><i>'Policy DM05: Highways</i></p> <p><i>(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.</i></p>	The potential effects of the Proposed Development with respect PRow are assessed in <b>sections 8.8 - 8.11</b> of the chapter.

Policy	Key provisions	How and where considered in the PEIR
	<i>(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.'</i>	Measures adopted to limit adverse effects on PRoW are set out in <b>section 8.7</b> of this chapter.
ST 09: Coast and Estuary Strategy	<p><i>'The Coastal and Estuarine Zone is identified on the Policies Map where:</i></p> <p><i>(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.'</i></p>	<p>The potential effects of the Proposed Development on the coast and public rights of way are assessed in <b>sections 8.8 - 8.11</b> of the chapter.</p> <p>Measures adopted to limit adverse effects on public rights of way are set out in <b>section 8.7</b> of this chapter.</p>

## 8.3 Consultation and Engagement

- 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 and operational 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 PEIR.

**Table 8.4: Summary of Scoping Responses**

Comment	How and where considered in the PEIR
<b>Planning Inspectorate</b>	
<i>'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.'</i>	The inter-related effects and cross references to other relevant PEIR chapters are considered in <b>section 8.13</b> of this PEIR chapter.
<i>'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.'</i>	The proposed methodology for further surveys is provided in <b>paragraphs 8.4.9 – 8.4.15</b> of this PEIR chapter to ensure that the areas of permanent loss of agricultural land quality are fully assessed, subject to further discussion with Natural England.

Comment	How and where considered in the PEIR
<p><i>‘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.’</i></p>	<p>The potential effects of the Proposed Development on best and most versatile land are assessed in <b>sections 8.8 – 8.11</b> of this PEIR chapter.</p>
<p><i>‘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.’</i></p>	<p><b>Section 8.7</b> of this PEIR provides the structure to be adopted in developing the Outline Soil Management Plan as part of the ES.</p>
<p><i>‘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.’</i></p>	<p>The mitigation measures provided in <b>section 8.7</b> of this PEIR include the provision of an outline Public Rights of Way Management Plan to limit disruption to PRowS and other recreational routes during the implementation of the Proposed Development.</p>
<p><b>Devon County Council</b></p>	
<p><i>‘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.’</i></p>	<p>The mitigation measures provided in <b>section 8.7</b> of this PEIR include the provision of an outline Public Rights of Way Management Plan to limit disruption to PRowS and other recreational routes during the implementation of the Proposed Development.</p>
<p><b>Natural England</b></p>	
<p><i>‘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 <a href="http://www.magic.gov.uk">www.magic.gov.uk</a>.’</i></p>	<p>The proposed methodology for further surveys is provided in <b>paragraphs 8.4.9 – 8.4.15</b> of this PEIR chapter to ensure that the areas of permanent loss of agricultural land quality are fully assessed, subject to further discussion with Natural England.</p>
<p><i>‘The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.’</i></p>	<p>The potential effects of the Proposed Development on best and most versatile land are assessed in <b>sections 8.8 – 8.11</b> of this PEIR chapter.</p>

<b>Comment</b>	<b>How and where considered in the PEIR</b>
<p><i>'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.'</i></p>	<p><b>Section 8.7</b> of this PEIR provides the structure to be adopted in developing the outline Soil Management Plan as part of the ES.</p>
<p><b>Littleham and Landcross Parish Council</b></p>	
<p><i>'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.'</i></p>	<p>The mitigation measures provided in <b>section 8.7</b> of this PEIR include the provision of an outline Public Rights of Way Management Plan to limit disruption to PRowS and other recreational routes during the implementation of the Proposed Development.</p>

## 8.4 Methodology

### Relevant Guidance

- 8.4.1 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 PEIR 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).

### Scope of the Assessment

- 8.4.2 The scope of this PEIR has been developed in consultation with relevant statutory and non-statutory consultees as detailed in **Table 8.5**.
- 8.4.3 The assessment considers the potential effects on land use and recreation during the construction and decommissioning phases.
- 8.4.4 Taking into account the scoping and consultation process, **Table 8.5** summarises the issues considered as part of this assessment.

**Table 8.5: Issues considered within this assessment**

Activity	Potential effects scoped into the assessment
<b>Construction Phase</b>	
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).
<b>Decommissioning phase</b>	
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)

8.4.5 The following effects, presented in **Table 8.6**, have been scoped out of the assessment as agreed by the Planning Inspectorate in the published Scoping Opinion.

**Table 8.6: Issues scoped out of the assessment**

Impact	Justification
<b>Operation and Maintenance</b>	
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.

## Land Use and Recreation Study Area

- 8.4.6 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.
- 8.4.7 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 Figure 1.2 (see Volume 1, Figures, of the PEIR), 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.
- 8.4.8 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.

## Methodology for Baseline Studies

### Desk Studies

- 8.4.9 The desk study was used to identify of 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.

8.4.10 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).

8.4.11 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.

8.4.12 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

8.4.13 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, remain *in situ*. The results of this survey work therefore remain valid for inclusion within this assessment.

8.4.14 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 PEIR. Figure 8.2 (See Volume 2, Figures) shows the location of the soil survey points and Volume 2, Figure 8.2 and 8.2a show the resulting data and mapping of soil types along the sections of the route that have been included.

8.4.15 Additional site-specific surveys will be undertaken to further inform the assessment of land use and recreation for the ES. These additional surveys will include the following:

- Walkover surveys will be undertaken to establish the nature and condition of recreational facilities and routes located within the recreation study area. This will include 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.
- A detailed ALC survey will be undertaken, where possible, for areas within the land use study area where there would be permanent loss of agricultural land associated with the converter stations. This would include areas of land which were not previously surveyed in connection with the Atlantic Array offshore

wind farm project together with areas within 200m of the areas surveyed for Atlantic Array to ensure that boundaries of ALC grades on the interface between the Atlantic Array survey areas and the DCO boundary can be accurately mapped. These detailed ALC surveys will include hand auger borings taken at approximately 100 m intervals across the areas experiencing permanent land take, with soil pits as necessary.

## Impact Assessment Methodology

### Overview

- 8.4.16 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 potential 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 Chapter 5: EIA Methodology, of the PEIR.
- 8.4.17 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

- 8.4.18 The criteria for defining sensitivity in this chapter are outlined in **Table 8.7** below.

**Table 8.7: Sensitivity criteria**

Sensitivity	Sub-topic	Definition
Very High	Agricultural land use	<b>Soils:</b> <ul style="list-style-type: none"> <li>ALC Grade 1 (excellent quality) agricultural land; and</li> <li>ALC Grade 2 (very good quality) agricultural land.</li> </ul>
		<b>Agricultural land holdings:</b> <ul style="list-style-type: none"> <li>land in which the enterprise is wholly reliant on the spatial relationship of land to key agricultural infrastructure; and</li> <li>access between land and key agricultural infrastructure is required on a frequent basis (daily).</li> </ul>
	Recreational resources	<b>Community land and assets:</b> <ul style="list-style-type: none"> <li>complete severance between communities and their land/assets with little/no accessibility provision;</li> <li>alternatives are only available outside the local planning authority area;</li> <li>the level of use is very frequent (daily); and</li> <li>the land and assets are used by the majority (≥50%) of the community.</li> </ul>

Sensitivity	Sub-topic	Definition
		<p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Rights of way crossing roads at grade with &gt;16,000 vehicles per day.</li> </ul>
High	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>ALC Grade 3a (good quality) agricultural land.</li> </ul> <p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>land in which the enterprise is dependent on the spatial relationship of land to key agricultural infrastructure; and</li> <li>access between land and key agricultural infrastructure is required on a frequent basis (weekly).</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>there is substantial severance between communities and their land/assets, with limited accessibility provision;</li> <li>alternative facilities are only available in the wider local planning authority area;</li> <li>the level of use is frequent (weekly); and</li> <li>the land and assets are used by the majority (≥50%) of the community.</li> </ul> <p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>regional trails and routes likely to be used for recreation and to a lesser extent commuting, that record frequent (daily) use;</li> <li>Limited potential for substitution; and</li> <li>rights of way crossing roads at grade with &gt;8,000 – 16,000 vehicles per day.</li> </ul>
Medium	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>ALC Grade 3b (moderate quality) agricultural land.</li> </ul> <p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>land in which the enterprise is partially dependent on the spatial relationship of land to key agricultural infrastructure; and</li> <li>access between land and key agricultural infrastructure is required on a reasonably frequent basis (monthly).</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>there is severance between communities and their land/assets, but with existing accessibility provision;</li> <li>limited alternative facilities are available at a local level within adjacent communities;</li> <li>the level of use is reasonably frequent (monthly); and</li> <li>the land and assets are used by the majority (≥50%) of the community.</li> </ul>

Sensitivity	Sub-topic	Definition
		<p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>• PRoW and other routes close to communities which are used for recreational purposes, but for which alternative routes can be taken;</li> <li>• these routes are likely to link to a wider network of routes to provide Options for longer recreational journeys; and</li> <li>• rights of way crossing roads at grade with &gt;4,000 – 8,000 vehicles per day.</li> </ul>
Low	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>• ALC Grade 4 (poor quality) agricultural land; and</li> <li>• ALC Grade 5 (very poor quality) agricultural land.</li> </ul>
		<p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>• land in which the enterprise is not dependent on the spatial relationship of land to key agricultural infrastructure; and</li> <li>• access between land and key agricultural infrastructure is required on an infrequent basis (monthly or less).</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>• Limited existing severance between communities and their land/assets, with existing full Disability Discrimination Act compliant accessibility provision;</li> <li>• alternative facilities are available at a local level within the wider community;</li> <li>• the level of use is infrequent (monthly or less frequent); and</li> <li>• the land and assets are used by the minority (≤50%) of the community.</li> </ul> <p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• rights of way crossing roads at grade with &lt;4,000 vehicles per day.</li> </ul>
Negligible	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>• previously developed land with little potential to return to agriculture.</li> </ul>
		<p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>• areas of land which are infrequently used on a non-commercial basis.</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>• no or limited severance or accessibility issues;</li> <li>• alternative facilities are available within the same community;</li> <li>• the level of use is very infrequent (a few occasions yearly); and</li> <li>• the land and assets are used by the minority (≤50%) of the community.</li> </ul> <p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>• N/A.</li> </ul>

## Magnitude of Impact

8.4.19 The criteria for defining magnitude in this chapter are outlined in **Table 8.8** below.

**Table 8.8: Impact magnitude criteria**

Magnitude of impact	Sub-topic	Definition
High	Agricultural land use	<b>Soils:</b> <ul style="list-style-type: none"> <li>physical removal or permanent sealing of more than 20 hectares (ha) of agricultural land.</li> </ul>
		<b>Agricultural land holdings:</b> <ul style="list-style-type: none"> <li>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</li> <li>introduction (adverse) or removal (beneficial) of complete severance with no/full accessibility provision.</li> </ul>
	Recreational resources	<b>Community land and assets:</b> <ul style="list-style-type: none"> <li>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</li> <li>introduction (adverse) or removal (beneficial) of complete severance with no/full accessibility provision.</li> </ul>
		<b>Walkers, cyclists, and equestrians:</b> <ul style="list-style-type: none"> <li>&gt;500m increase (adverse) or decrease (beneficial) in journey length.</li> </ul>
Medium	Agricultural land use	<b>Soils:</b> <ul style="list-style-type: none"> <li>physical removal or permanent sealing on 1 to 20 ha of agricultural land; and</li> <li>permanent loss/reduction of one or more soil function(s) and restriction to current or approved future use.</li> </ul>
		<b>Agricultural land holdings:</b> <ul style="list-style-type: none"> <li>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</li> <li>introduction (adverse) or removal (beneficial) of severe severance with limited/moderate accessibility provision.</li> </ul>
	Recreational resources	<b>Community land and assets:</b> <ul style="list-style-type: none"> <li>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</li> <li>introduction (adverse) or removal (beneficial) of severe severance with limited/moderate accessibility provision.</li> </ul>
		<b>Walkers, cyclists, and equestrians:</b> <ul style="list-style-type: none"> <li>&gt;250m-500m increase (adverse) or decrease (beneficial) in journey length.</li> </ul>
	Low	Agricultural land use

Magnitude of impact	Sub-topic	Definition
		<p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• introduction (adverse) or removal (beneficial) of severance with adequate accessibility provision.</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• introduction (adverse) or removal (beneficial) of severance with adequate accessibility provision.</li> </ul>
		<p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>• &gt;50 m – 250 m increase (adverse) or decrease (beneficial) in journey length.</li> </ul>
Negligible	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>• no discernible loss/reduction in soil function(s) that restrict current or approved future use.</li> </ul>
		<p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• very minor introduction (adverse) or removal (beneficial) of severance with ample accessibility provision.</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• very minor introduction (adverse) or removal (beneficial) of severance with ample accessibility provision.</li> </ul> <p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>• &lt;50 m increase (adverse) or decrease (beneficial) in journey length.</li> </ul>
No change	Agricultural land use	<p><b>Soils:</b></p> <ul style="list-style-type: none"> <li>• no loss/reduction of soil function(s) that restrict current or approved future use.</li> </ul>
		<p><b>Agricultural land holdings:</b></p> <ul style="list-style-type: none"> <li>• no loss or alteration of characteristics, features, or elements or accessibility; no observable impact in either direction.</li> </ul>
	Recreational resources	<p><b>Community land and assets:</b></p> <ul style="list-style-type: none"> <li>• no loss or alteration of characteristics, features, elements, or accessibility; no observable impact in either direction.</li> </ul>

Magnitude of impact	Sub-topic	Definition
		<p><b>Walkers, cyclists, and equestrians:</b></p> <ul style="list-style-type: none"> <li>no loss or alteration of characteristics, features, elements, or accessibility; no observable impact in either direction.</li> </ul>

- 8.4.20 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

- 8.4.21 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 8.9**. Where a range of significance levels is presented, the final assessment for each effect is based upon expert judgement.
- 8.4.22 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.
- 8.4.23 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 8.9: 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

- 8.4.24 Where the magnitude of impact is ‘no change’, no effect would arise.
- 8.4.25 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**

- 8.4.26 At this stage, 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: Agricultural Land Classifications, of the PEIR. The data collected in connection with the Atlantic Array proposal are still valid for the assessment of soil resources and ALC within the DCO boundary as the soil physical characteristics recorded in the survey remain in situ.
- 8.4.27 However, soil and ALC survey within the land use study areas requiring permanent land take (i.e., onshore converter stations) will be completed, where possible, prior to the submission of the ES to refine the assessment and enable a more detailed assessment to be undertaken.
- 8.4.28 The results of soil and ALC survey work will be reported in the ES and used to inform the development of the Outline Soil Management Plan. The Outline Soil Management Plan will form part of the Outline On-CEMP at the ES stage.

## **8.5 Baseline Environment**

### **Desk Study**

- 8.5.1 Information on land use and recreation within the study area was collected through a detailed review of existing studies and datasets. These are summarised at **Table 8.10**.

**Table 8.10: Summary of desk study sources used**

<b>Title</b>	<b>Source</b>	<b>Year</b>	<b>Author</b>
Agricultural Land Classification Grades – Post 1988 (England).	Natural England	2017	Natural England
Defra – Agricultural Annual Statistics on structure of the agricultural industry at 1 <sup>st</sup> 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)



<b>Title</b>	<b>Source</b>	<b>Year</b>	<b>Author</b>
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
Torrige District Council Main Interactive Map – Public Rights of Way	Torrige District Council	2024	Torrige District Council
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**

- 8.5.2 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 found only in parts of the association.
- 8.5.3 Figure 8.3 (Volume 2, Figures) shows the distribution of the main soil types within the land use and recreation study area.
- 8.5.4 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.
- 8.5.5 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.

- 8.5.6 The Manot Association similarly has mainly ‘well drained fine loamy or fine silty soils over rock (usually slate mudstone or siltstone)’.
- 8.5.7 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.
- 8.5.8 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**

- 8.5.9 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 8.11** below.

**Table 8.11: Key receptors taken forward to assessment**

<b>Data</b>	<b>Reference Point 1</b>	<b>Reference Point 2</b>	<b>Reference Point 3</b>	<b>Reference Point 4</b>	<b>Reference Point 5</b>
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**

- 8.5.10 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 8.4 (Volume 2, Figures).

- 8.5.11 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.
- 8.5.12 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 8.5 (Volume 2, Figures, of the PEIR). 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.
- 8.5.13 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.
- 8.5.14 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

- 8.5.15 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)

- 8.5.16 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)**

- 8.5.17 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)**

- 8.5.18 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**

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

**Nercwys series (Nc)**

- 8.5.20 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)**

- 8.5.21 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).
- 8.5.22 Appendix 8.1 (See Volume 2, Appendices, of the PEIR) 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.
- 8.5.23 Slopes along most of the proposed route are gentle or moderate and in themselves pose no agricultural limitations except immediately east of the Torridge River (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.
- 8.5.24 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.
- 8.5.25 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.

- 8.5.26 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.
- 8.5.27 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.

## **Farm Holdings**

- 8.5.28 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 8.12** below.

**Table 8.12: Types of Agricultural Land Use within the study area**

<b>Area</b>	<b>Cereals (ha)</b>	<b>%</b>	<b>Arable Crops excluding cereals (ha)</b>	<b>%</b>	<b>Fruit and Vegetables</b>	<b>%</b>	<b>Grassland</b>	<b>%</b>
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

- 8.5.29 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%).
- 8.5.30 The area of Torridge District, as the data identifies, is dominated mainly by grassland-based livestock and mixed farming enterprises (beef, dairy and sheep).
- 8.5.31 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.
- 8.5.32 Volume 2, Figure 8.6 identifies the pattern of landholdings within the study area based on published land registry data examined in February 2024.
- 8.5.33 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

8.5.34 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 8.7) 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

- 8.5.35 No recreational facilities, except for the section of beach described above in **paragraphs 8.5.34** and the PRow described below in paragraphs **8.5.37 – 8.5.39** 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 8.7 (See Volume 2, Figures).
- 8.5.36 The following facilities are not located on or immediately adjacent to the proposed 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

- 8.5.37 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 8.7 (See Volume 2: Figures).
- 8.5.38 At the landfall, the Onshore HVDC Cable Corridor would pass beneath the South West Coast Path by the use of Horizontal Directional Drilling (HDD). 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.

8.5.39 Inland from the landfall site the following PRoW and recreational routes cross or are proximate to the Onshore HVDC Cable Corridor (see Figure 8.7 (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.
- 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 cable route crosses the local road close to its junction with this bridleway which is just outside the study area;
- Bideford Bridleway 9 is promoted as a recreational route to the north of the cable route at Ashridge Barton outside the study area but linking into the local roads crossed by the onshore cable route at West Ashridge;
- The Tarka Trail runs along the east bank of the River Torridge south of Bideford. The cable route 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 Proposed Development Draft Order Limits but lies immediately to the north of it.

## Future Baseline Conditions

8.5.40 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.

8.5.41 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 8.11** of this chapter.

## Key Receptors

8.5.42 **Table 8.13** identifies the receptors taken forward into the assessment.

**Table 8.13: Key receptors taken forward to assessment**

Receptor	Description	Sensitivity/Value
<b>Agricultural Land Quality</b>		
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
<b>Agricultural Land Holdings</b>		
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 between land and key agricultural infrastructure is required on a frequent basis (weekly).	High
	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
<b>Recreation</b>		
Beach	Cornborough Ranges	High



Receptor	Description	Sensitivity/Value
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)
<b>Other recreational resources</b>		
Bideford and District Angling Club	Coarse fishing lakes	Medium

## 8.6 Key Parameters for Assessment

### Maximum Design Scenario

- 8.6.1 The maximum design scenarios identified in **Table 8.14** 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 Project Design Envelope provided in Chapter 3: Project Description, of the PEIR. 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 scheme. Therefore, this comprises a conservative assessment of a worst case scenario.

**Table 8.14: Maximum design scenario considered for the assessment of potential impacts**

Potential Impact	Phase <sup>1</sup>			Maximum Design Scenario	Justification
	C	O	D		
<p>The temporary loss of best and most versatile land</p> <p>The permanent loss of best and most versatile land</p>	✓	✘	✘	<p><b>Construction phase Landfall</b></p> <ul style="list-style-type: none"> <li>HDD: The maximum number of cable ducts will be six, with an HDD length of 2,110 m. The maximum number of entry and exit pits are six each. A landfall working compound of 10,000 m<sup>2</sup>. Duration of installation of up to 18 months in the initial phase and six months in the second phase of works.</li> <li>The maximum number of transition joint bays will be two, with a total maximum permanent area of 150 m<sup>2</sup> associated with the ground level covers.</li> <li>HDD: A landfall working compound of 10,000 m<sup>2</sup>. 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).</li> </ul> <p><b>Construction phase: onshore HVDC cables</b></p> <ul style="list-style-type: none"> <li>The maximum number of trenches will be two, with an approximate trench depth of 1.4 m.</li> <li>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<sup>3</sup> and 3.15 m<sup>3</sup> of material excavated for each joint bay and link box respectively.</li> <li>Duration of installation of up to 36 months.</li> <li>The maximum number of HDD locations is 7 (excluding HDD at landfall). Each major HDD location will have two compounds, measuring up to 10,000 m<sup>2</sup>. Drilling mud will be stored and used at these compounds.</li> <li>HDD to be used beneath River Torridge, Kenwith Stream and unnamed stream south of Jennets reservoir. There is an option to HDD below the unnamed watercourse along the southern border of the Converter Site.</li> </ul>	<p>All major crossings, such as major roads, river and rail crossings will be undertaken using HDD or other trenchless techniques, where practicable.</p> <p>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.</p> <p>Elsewhere, open cut trenching represents the largest physical impact and greatest area of agricultural land loss, both temporary and permanent, compared to HDD beneath a feature. Open cut in areas of PRow is the worst case scenario for recreational path users, compared to HDD beneath the PRow.</p> <p>As such, where options remain, open cut trenching represents the MDS for agricultural land use and recreation.</p> <p>The MDS is represented by the largest permanent footprint for the converter stations and substation, which represents the largest physical impact and greatest area of agricultural land loss, both temporary and permanent.</p>
<p>The temporary disruption caused to the operation of farm holdings</p>	✓	✘	✘		

## XLINKS MOROCCO – UK POWER PROJECT

Potential Impact	Phase <sup>1</sup>			Maximum Design Scenario	Justification
	C	O	D		
The permanent disruption caused to the operation of farm holdings	✓	✓	✓	<p><b>Construction phase: converter stations</b></p> <ul style="list-style-type: none"> <li>Maximum number of stations is two, which would have a combined footprint of 130,000 m<sup>2</sup>.</li> <li>Converter station foundations may be piled.</li> </ul> <p><b>Construction phase: HVAC cables</b></p> <ul style="list-style-type: none"> <li>Temporary converter station compound footprint: 20,000 m<sup>2</sup> (additional to permanent footprint).</li> <li>Duration: 72 months.</li> </ul> <p><b>Construction phase: HVAC cables</b></p> <ul style="list-style-type: none"> <li>The maximum number of trenches will be four, with an approximate depth of 1.4 m.</li> <li>The working area will include a construction corridor width of 65 m, with a length of up to 1.2 km. Duration of installation of up to 24 months over two phases.</li> </ul> <p><b>Construction Phase: Alverdiscott Substation Connection Development</b></p> <ul style="list-style-type: none"> <li>Permanent footprint of the Alverdiscott Substation Connection Development would be 38,000 m<sup>2</sup>.</li> <li>Duration of works: 24 months.</li> </ul> <p><b>Construction: Highways improvements</b></p> <ul style="list-style-type: none"> <li>Selective widening of Gammaton Road</li> <li>Widening of unnamed road between Gammaton Cross and Converter Site including a short section of new road to connect Gammaton Road and the unnamed road.</li> <li>Creation of accesses to onshore HVDC cable route construction sites including: <ul style="list-style-type: none"> <li>Creation of remodelled junction at A386 and unnamed road to Littleham.</li> <li>Widening of junction at the Cornborough sewage treatment works access.</li> <li>Access to other major compounds at A39 (north and south) and Gammaton Road.</li> </ul> </li> </ul>	
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 Wales Coast Path and the Tarka Trail (National Cycle Route)	✓	✗	✗		

**XLINKS MOROCCO – UK POWER PROJECT**

Potential Impact	Phase <sup>1</sup>			Maximum Design Scenario	Justification
	C	O	D		
				<p><b>Construction: all elements</b></p> <ul style="list-style-type: none"> <li>• Construction compounds will be prepared by removing and storing topsoil and subsoil and then constructing hardstanding areas using clean crushed stone.</li> <li>• Temporary dewatering of export trenches, joint bays and link boxes will be required where shallow groundwater is encountered.</li> </ul> <p><b>Operation and maintenance phase</b></p> <ul style="list-style-type: none"> <li>• Maintenance to the onshore HVDC cables and the HVAC cables will be undertaken only as required. Corrective activities will be limited.</li> <li>• The Onshore HVDC cables, the HVAC cables and the converter stations will be monitored remotely but will involve regular visits.</li> <li>• Permanent footprint of the converter stations would be 130,000 m<sup>2</sup>.</li> <li>• Permanent footprint of the Alverdiscott Substation Connection Development would be 38,000 m<sup>2</sup>.</li> </ul> <p><b>Decommissioning phase</b></p> <ul style="list-style-type: none"> <li>• 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).</li> </ul>	

<sup>1</sup> C=construction, O=operational and maintenance, D=decommissioning

## 8.7 Mitigation Measures Adopted as Part of the Proposed Development

8.7.1 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 within Volume 1, Appendix 3.1: Draft Mitigation Schedule, of the PEIR.

- Primary (inherent) mitigation – measures included as part of the project 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 Development Consent Order (DCO). For example, a reduction in footprint or height.
- 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 an environmental management plan.
- 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 (CEMP) or similar.

8.7.2 The following measures (see **Table 8.15**) have been adopted as part of the Proposed Development to reduce the potential for impacts on land use and recreation.

**Table 8.15: Mitigation measures adopted as part of the Proposed Development**

Measure Adopted	How the Measure Will be Secured
<p><b>Soil Management</b></p> <p>The preparation of a detailed Soil Management Plan which would form part of the detailed CEMP. Measures to be adopted as part of the plan would include:</p> <ul style="list-style-type: none"> <li>• Separate stripping and storage of identified topsoil and subsoil resources to prevent mixing of soil materials which can reduce overall soil quality.</li> <li>• Location of topsoil and subsoil heaps to avoid cross-contamination of materials and the trafficking of soil heaps by construction traffic.</li> <li>• Maintenance of topsoil and subsoil heaps to reduce potential losses of soil materials throughout the duration of storage.</li> <li>• Control of the timing of soil handling operations to reduce potential soil damage through handling in unsuitable conditions.</li> </ul>	<p>A detailed Soil Management Plan will be prepared in general accordance with the Outline Soil Management Plan that will be submitted as part of the Environmental Statement. A detailed Soil Management Plan would be prepared as part of the wider CEMP, to be secured as a requirement of the DCO.</p>

<b>Measure Adopted</b>	<b>How the Measure Will be Secured</b>
<ul style="list-style-type: none"> <li>• Choice of soil handling machinery and method for its use, to reduce potential for soil compaction and soil damage.</li> <li>• Implementation of appropriate soil aftercare following reinstatement of land in accordance with the Outline Soil Management Strategy.</li> <li>• Careful supervision of soil handling operations on site to ensure that recognised good practice is effectively implemented on site.</li> </ul>	
<b>Farm Holdings</b>	
<p>The application of measures to maintain the operation of the farm holdings, including:</p> <ul style="list-style-type: none"> <li>• The maintenance and reinstatement, where reasonably practicable, of existing water supplies and drainage systems during the construction process.</li> <li>• The maintenance of access routes across individual fields, where reasonably practicable, where these are severed during construction.</li> <li>• The maintenance of farm access routes, wherever reasonably practicable, between fields within a farm holding</li> <li>• Appropriate fencing of the Mona Proposed Onshore Development Area, dependent upon the nature of the individual farm holding affected.</li> <li>• Appropriate construction practices to be implemented to ensure that the potential risk for the spread of animal and plant diseases is reduced as far as practicable.</li> <li>• Timing of construction works, where feasible, to minimise disruption to landowners/farming practice, through agreement with landowners</li> </ul>	<p>The preparation of the CEMP to be delivered under a requirement of the DCO.</p>
<b>Public Rights of Way</b>	
<p>The preparation of an outline PRoW Management Plan to include measures to manage impacts to the PRoW network affected during construction.</p>	<p>A detailed PRoW Management Plan will be prepared in general accordance with the Outline PRoW Plan that will be submitted as part of the Environmental Statement and will be secured as a requirement of the DCO.</p>
<b>Recreational Assets</b>	
<p>The preparation of the Outline On-CEMP to include measures to limit the effects of the Proposed Development on recreational assets, wherever possible. These would include measures to control potential environment impacts including:</p> <ul style="list-style-type: none"> <li>• Construction Dust</li> <li>• Construction Noise and vibration</li> <li>• Construction traffic;</li> <li>• Surface water and drainage management</li> </ul>	<p>An On-CEMP will be prepared in accordance with the Outline On-CEMP, which will form part of the Environmental Statement and will be secured as a requirement of the DCO.</p>

## 8.8 Assessment of Construction Effects

- 8.8.1 The impacts of the construction of the Proposed Development have been assessed. The potential 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.
- 8.8.2 A description of the potential effect on receptors caused by each identified impact is given below.

### The Permanent and Temporary Loss of Agricultural Land Quality

#### Sensitivity of the Receptor

- 8.8.3 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

- 8.8.4 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 MDS could be long term (i.e. >5 years)
- 8.8.5 However, the implementation of measures adopted as part of the Proposed Development as set out in **Table 8.15** 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.
- 8.8.6 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

- 8.8.7 The construction of the Converter Site and Alverdiscott Substation Connection Development would lead to the permanent loss of approximately 16.8 ha of agricultural land. In addition, landscaping and earthworks could affect a further area of up to 20.6 ha and it is assessed, on a conservative basis that the quality of this land could be permanently affected.
- 8.8.8 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 m<sup>2</sup> or 0.05 ha of land.
- 8.8.9 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

- 8.8.10 Following the implementation of the measures identified in **Table 8.15** 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

- 8.8.11 The survey work undertaken previously in connection with the Atlantic Array Project (Figure 8.2a), 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 the loss of Subgrade 3a land could exceed 20 ha.
- 8.8.12 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.

## The Impact of Disruption and Reduced Access to Agricultural Land Holdings

### Sensitivity of the Receptor

- 8.8.13 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

- 8.8.14 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 8.15**, 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).

- 8.8.15 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

- 8.8.16 The permanent loss of agricultural land associated with the converter stations and the potential substation area would affect areas of land within individual livestock based farm holdings. Discussions will be progressed with the individual interested parties 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.
- 8.8.17 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

- 8.8.18 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 8.15**, including measures to maintain access and continued operation of affected farm holdings during the construction phase.

### Permanent effects

- 8.8.19 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

## The Temporary Impact to the Use of Recreational Resources

### Sensitivity of the Receptor

#### Coastal Areas

- 8.8.20 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

- 8.8.21 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 PRow

- 8.8.22 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

- 8.8.23 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

- 8.8.24 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

- 8.8.25 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 PRow

- 8.8.26 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. These routes could be subject to temporary disruption during construction.
- 8.8.27 Alternative routes may be available to the public, but these may result in longer journeys depending on their start and finish locations. The implementation of the Outline Public Rights of Way Management Plan 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

- 8.8.28 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.

- 8.8.29 Measures would be put into place in accordance with the outline CEMP, 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

- 8.8.30 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

- 8.8.31 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

- 8.8.32 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

- 8.8.33 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.

## 8.9 Assessment of Operational Effects

- 8.9.1 There would be no additional impacts on land use and recreational resources to those assessed in the construction phase arising during the operational period.

## 8.10 Assessment of Decommissioning Effects

- 8.10.1 During decommissioning, it is expected that the onshore HVDC and HVAC cables may be recovered by pulling the cables through the ducts. Otherwise, they will 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.
- 8.10.2 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.

- 8.10.3 If the operation of the Proposed Development does not continue beyond 50 years, the proposed converter stations would be decommissioned. For the purposes of EIA, decommissioning of the proposed converter stations is assumed to be similar to the construction and in reverse sequence.
- 8.10.4 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

- 8.10.5 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

- 8.10.6 No new areas of permanent land take are envisaged and therefore no additional permanent effects on agricultural land will occur.
- 8.10.7 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

- 8.10.8 There would be no impact and therefore no effect in terms of permanent land take during the decommissioning phase.
- 8.10.9 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.

### Farm Holdings

#### Sensitivity of the Receptor

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

#### Magnitude of Impact

- 8.10.11 No permanent disruption or access impacts will occur as a result of the decommissioning phase.
- 8.10.12 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

- 8.10.13 There would be no impact and therefore no effect in terms of permanent land take during the decommissioning phase.
- 8.10.14 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.

## Recreational Resources

- 8.10.15 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

- 8.10.16 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

- 8.10.17 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

- 8.10.18 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

## 8.11 Cumulative Environmental Assessment

- 8.11.1 Any change in the effects due to the Proposed Development alongside the effect of another development on a single receptor should be considered.
- 8.11.2 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, of the PEIR). 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.

- 8.11.3 The land use and recreation CEA methodology has followed the methodology set out in Chapter 5: EIA Methodology, of the PEIR. 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.
- 8.11.4 This tiered approach is adopted to provide a clear assessment of the Proposed Development alongside other projects, plans and activities.
- 8.11.5 The specific projects, plans and activities scoped into the CEA, are outlined in **Table 8.16**.

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**Table 8.16: 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?
<b>Tier 1</b>						
1/1133/2021/REMM	Permitted	Adjacent to 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
1/1256/2021/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	0.2	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	0.3	Outline application (14.6ha) for the erection of up to 400 dwellings, amenity open space, footpath links, associated landscaping and infrastructure works with all matters reserved except access (Affecting a Public Right of Way)	Unknown	Unknown	Yes

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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?
1/0523/2021/REMM	Permitted	0.3	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	0.35	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	0.5	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	0.7	Proposed new business hub incorporating a conference centre, new offices, a gym, nursery, associated car parking and landscaping.	Unknown	Unknown	Yes
1/0410/2022/FULM	Permitted	0.7	Semi-developed land at the end of Mines Road off Manteo Way. Land associated with application ref: 1/0327/2008/FUL and later 1/0233/2012/EXTM. 12 dwellings with parking.(1.13ha)	Unknown	Unknown	Yes
1/0682/2021/FULM	Under Construction	0.7	Reserved Matters (appearance, landscaping, layout and scale) application pursuant to 1/1084/2015/OUTM application for 145 dwellings, with associated public open space,	Unknown	Unknown	Yes



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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?
			play areas, landscaping and access from Cornborough Road following demolition of 2 existing dwellings (additional information). (6.43ha)			
1/0926/2020/OUTM	Permitted	0.8	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	0.9	Reserved matters application for appearance, access, landscaping, layout & scale pursuant to planning approval 1/0111/2016/OUTM for the erection of 26 residential dwellings, associated infrastructure and open space.	Unknown	Unknown	Yes

## Cumulative Effects Assessment

- 8.11.6 A description of the significance of cumulative effects upon Land Use and Recreation receptors arising from construction and operation is given below.

### Construction – Agricultural Land Classification

#### Tier 1 Projects

- 8.11.7 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 Proposed Development Draft 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.
- 8.11.8 The sensitivity of the agricultural land classification receptor is assessed to be **high** based on the presence of Subgrade 3a land.
- 8.11.9 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

- 8.11.10 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.
- 8.11.11 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.
- 8.11.12 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.
- 8.11.13 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.

## Construction – Public Rights of Way

8.11.14 Based on the location of the cumulative schemes and the implementation of the Outline Public Rights of Way Management Strategy to be prepared as part of the ES for the proposed development, it is assessed that there would be no temporary cumulative effects arising between these cumulative schemes and the Proposed Development.

## 8.12 Transboundary Effects

8.12.1 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).

## 8.13 Inter-related Effects

- 8.13.1 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), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases (e.g., construction noise effects from piling and operational substation noise).
  - Receptor led effects: Assessment of the scope for all effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor. Receptor-led effects may be short term, temporary or transient effects, or incorporate longer term effects.
- 8.13.2 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 PEIR
- 8.13.3 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.
- 8.13.4 The potential effects arising from the Proposed Development on tourism are considered in Volume 4, Chapter 3: Socio-economics.

## 8.14 Summary of Impacts, Mitigation Measures and Monitoring

8.14.1 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.

- 8.14.2 **Table 8.17** 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.
- 8.14.3 Overall, it is concluded that there will be significant effects arising from the Proposed Development on agricultural land quality during the construction phase when permanent effects on agricultural land occur.
- 8.14.4 **Table 8.18** presents a summary of the potential 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..
- 8.14.5 Overall, it is concluded that there will be significant cumulative effects from the Proposed Development on agricultural land quality alongside other projects/plans.
- 8.14.6 No potential transboundary impacts have been identified in regard to effects of the Proposed Development.

**Table 8.17: Summary of potential environmental effects**

Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
<b>Construction phase</b>							
The temporary loss of agricultural land quality	Up to very high	During the construction phase and this would lead to the temporary loss of more than 20 ha of such land	Could be long term	Negligible	Minor adverse	Not significant	
The permanent loss of Agricultural Land Quality	Up to very high	there would be a permanent loss of in excess of 20ha of agricultural land resulting from the Proposed Development	Long term	High	Major adverse	Significant	
The temporary impact of disruption and reduced access to agricultural land holdings	High	Construction of the Proposed Development would result in the temporary severance of farmland within several agricultural land holdings	Long term	Low	Minor adverse	Not significant	
The permanent impact of disruption and reduced access to agricultural land holdings	High	The permanent loss of agricultural land associated with the convertor stations and the potential substation area would affect areas of land within individual livestock based farm holdings	Long term	Low	Minor adverse	Not significant	
<b>The temporary impact to the use of recreational resources</b>							
Coastal Areas	High	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	Not affected	Negligible	Minor adverse	Not significant	
Long distance routes and NRCs	Very high	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	Not affected	Negligible	Minor adverse	Not significant	

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Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
Other PRoW	Medium	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	Short term	Low	Minor adverse	Not significant	
Other recreational resources	Medium	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.	Medium term	Low	Minor adverse	Not significant	
<b>Decommissioning phase</b>							
Agricultural land quality	Very High	No new areas of permanent land take are envisaged and therefore no additional permanent effects on agricultural land will occur	Not affected	Negligible	Minor adverse	Not significant	
Farm holdings	High	No permanent disruption or access impacts will occur as a result of the decommissioning phase	Not affected	Negligible	Minor adverse	Not significant	

**Table 8.18: Summary of potential cumulative environmental effects**

Receptor	Sensitivity of receptor	Description of impact	Short / medium / long term	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
<b>Construction phase</b>							
Agricultural Land Classification	High	Losses in excess of 20 ha of Subgrade 3a land	Long term	High	Major adverse	Significant	
Farm Holdings	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	Short term	Low	Minor adverse	Not significant	

## 8.15 Next Steps

- 8.15.1 Additional site specific surveys will be required to information the assessment of land use and recreation for the ES and will include:
- Detailed ALC survey within areas of permanent land take within the Proposed Development which have not been previously surveyed, with some additional survey in adjacent area of previous survey work to confirming the mapping of ALC boundaries.
  - Condition survey updates for PRow to inform management proposals as part of Outline Public Rights of Way Management Plan.
- 8.15.2 In addition, mitigation measures to be included in the Outline PRow management plan will be discussed with the local planning authority and other stakeholders as appropriate. Discussions with landowners will also be undertaken to further inform the design of the Proposed Development to reduce, as far as possible, the effects on farm holdings identified within the farm holding study area.

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